Table of Contents

As filed with the Securities and Exchange Commission on May 5, 2016

Registration No. 333-210689

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

AMENDMENT NO. 4
TO
FORM S-1
REGISTRATION STATEMENT
Under
The Securities Act of 1933

INTELLIA THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware	2836	36-4785571
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

130 Brookline Street, Suite 201
Cambridge, MA 02139
(857) 285-6200
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Nessan Bermingham, Ph.D.
Founder, President and Chief Executive Officer
130 Brookline Street, Suite 201
Cambridge, Massachusetts 02139
(857) 285-6200
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Arthur R. McGivern, Esq. William D. Collins, Esq. Goodwin Procter LLP Exchange Place Boston, Massachusetts 02109 (617) 570-1000	José E. Rivera, Esq. Chief Operating Officer and Chief Legal Officer Intellia Therapeutics, Inc. 130 Brookline Street, Suite 201 Cambridge, Massachusetts 02139 (857) 285-6200	Peter N. Handrinos, Esq. Brandon J. Bortner, Esq. Latham & Watkins LLP John Hancock Tower 200 Clarendon Street Boston, Massachusetts 02116 (617) 948-6000

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, as amended, 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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	☐	Accelerated Filer	☐
Non-Accelerated Filer (Do not check if a smaller reporting company)	☒	Smaller Reporting Company	☐

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 that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MAY 5, 2016

5,000,000 Shares

Common Stock

This is the initial public offering of shares of our common stock. Prior to this offering, there has been no public market for our common stock. We are selling 5,000,000 shares of our common stock. The initial public offering price of our common stock is expected to be between $16.00 and $18.00 per share.

We have applied to list our common stock on The NASDAQ Global Market under the symbol “NTLA.”

The underwriters have an option to purchase a maximum of 750,000 additional shares of common stock from us.

We are an “emerging growth company” as that term is used in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

Investing in our common stock involves risks. See “Risk Factors” on page 13.

	Price to Public	Underwriting Discounts and Commissions	Proceeds to Intellia Therapeutics, Inc.
Per Share	$	$	$
Total	$	$	$

(1) See “Underwriting” beginning on page 152 of this prospectus for additional information regarding underwriting compensation.

Regeneron Pharmaceuticals, Inc. and Novartis Institutes for Biomedical Research, Inc., our collaboration partners, have agreed to purchase $50.0 million and $5.0 million, respectively, of our common stock in separate private placements concurrent with the completion of this offering at a price per share equal to the public offering price. The sale of such shares will not be registered under the Securities Act of 1933, as amended. The closing of this offering is not conditioned upon the closing of such concurrent private placements.

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $30.0 million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering.

Delivery of the shares of common stock will be made on or about , 2016.

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.

Credit Suisse **Jefferies** **Leerink Partners**

Wedbush PacGrow

The date of this prospectus is , 2016

TABLE OF CONTENTS

Through and including , 2016 (25 days after the commencement of this offering), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

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

The market data and certain other statistical information used throughout this prospectus are based on independent industry publications, governmental publications, reports by market research firms or other independent sources that we believe to be reliable sources. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosure contained in this prospectus, and we believe these industry publications and third-party research, surveys and studies are reliable. While we are not aware of any misstatements regarding any third-party information presented in this prospectus, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties, and are subject to change based on various factors, including those discussed under the section entitled "Risk Factors" and elsewhere in this prospectus. Some data are also based on our good faith estimates.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our consolidated financial statements and the related notes included elsewhere in this prospectus. You should also consider, among other things, the matters described under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case appearing elsewhere in this prospectus.

On August 20, 2015, Intellia Therapeutics, LLC, a Delaware limited liability company, merged with and into Intellia Therapeutics, Inc., a Delaware corporation and the issuer of the shares of common stock offered by this prospectus, which we refer to as the Reorganization. As used in this prospectus, unless the context otherwise requires, references to the "Company," "Intellia," "we," "us" and "our" refer to (i) prior to the date of the Reorganization, Intellia Therapeutics, LLC and its wholly owned, consolidated subsidiary, or either or both of them as the context may require, and (ii) following the date of the Reorganization, Intellia Therapeutics, Inc.

Overview

We are a leading gene editing company focused on the development of proprietary, potentially curative therapeutics utilizing a recently developed biological tool known as the CRISPR/Cas9 system. We believe that the CRISPR/Cas9 technology has the potential to transform medicine by permanently editing disease-associated genes in the human body with a single treatment course. We intend to leverage our leading scientific expertise, clinical development experience and intellectual property position to unlock broad therapeutic applications of CRISPR/Cas9 gene editing and develop a potential new class of therapeutic products.

In 2012, one of our co-founders and current scientific advisors, Dr. Jennifer Doudna, and her colleagues published a paper in the journal *Science* describing the use of CRISPR/Cas9 as a gene editing tool. Gene editing is the precise and targeted modification of the genetic material of cells. Since the publication of Dr. Doudna's landmark paper, more than 2,600 research papers have been published on the CRISPR/Cas9 technology. The CRISPR/Cas9 system offers a revolutionary approach for therapeutic development due to its broad potential to precisely edit genes. This system can be used to make three general types of edits: knockouts, repairs and insertions. Each of these editing strategies takes advantage of naturally occurring biological mechanisms to effect the desired genetic alteration. This approach has the potential to provide curative therapeutic options for patients with chronic diseases by addressing the underlying genetic cause or driver of the disease.

Unlike earlier-generation gene editing technologies, the CRISPR/Cas9 system is simple and involves a single protein, Cas9, that can be directed to precisely cleave a target DNA sequence by using pieces of RNA, called guide RNAs, that specifically recognize the target DNA of interest. Therefore, CRISPR/Cas9-based therapeutics have the potential to be highly efficient, selective and scalable.

We believe that CRISPR/Cas9 offers significant technical advantages and broader potential to edit genes over other gene editing methods. Such advantages include:

- higher selectivity and cleavage efficiency;
- simpler tools allowing for rapid scaling and optimization;
- more efficient path to achieve preclinical proof-of-concept;
- broader applicability to *in vivo* and *ex vivo* therapies;
- greater potential for single curative treatment; and
- greater potential to address polygenic or complex genetic disorders by targeting multiple DNA sites simultaneously.

We believe we are well positioned to maximize the potential of the CRISPR/Cas9 system to develop therapeutics based on the following:

- ***Strong Product Focus***. We are focused on the development of potentially curative therapeutic products through the application of the CRISPR/Cas9 system for the treatment of patient populations with significant unmet needs. We are targeting both *in vivo* and *ex vivo* applications in parallel to build a pipeline across a range of indications and to generate a wealth of data that expands the potential therapeutic applications of the CRISPR/Cas9 technology across a broad range of diseases.
- ***Deep Management Expertise in Discovering and Developing New Therapeutics.*** We have assembled a world-class team of executives, founders and advisors who are dedicated to the development of CRISPR/Cas9-based therapeutic products for patients with significant unmet medical needs. Led by Nessan Bermingham, Ph.D., our Founder and Chief Executive Officer, John M. Leonard, M.D., our Chief Medical Officer, and José E. Rivera, our Chief Operating Officer and Chief Legal Officer, our team's expertise spans CRISPR/Cas9 and broader gene editing technologies, *in vivo* and *ex vivo* therapeutic delivery technologies, preclinical and clinical development, product scale-up and manufacturing, cell and molecular biology, intellectual property, finance and regulatory affairs.
- ***Strong Product-Focused Partnerships to Accelerate Path to Clinic.*** The potential application of CRISPR/Cas9 is extremely broad, and we plan to continue to identify partners who can contribute meaningful resources and insights to our programs and allow us to more rapidly expand our impact to broader patient populations. Our partnership focusing on chimeric antigen receptor, or CAR, T cells with Novartis Institutes for BioMedical Research, Inc., or Novartis, and our partnership with Regeneron Pharmaceuticals, Inc., or Regeneron, a leader in human genetics research, exemplify this strategy.
- ***Risk-Mitigated Approach to Accelerate Product Development Path for CRISPR/Cas9 Technology.*** Our selection criteria for our initial indications position us to build a risk-diversified pipeline, where we are not reliant on any single delivery technology or editing approach for success. In addition, we believe we can apply the learnings from our initial indications to inform our selection of subsequent indications and targets of interest. We believe this approach serves to increase the probabilities of success in our initial indications, generate insights that will accelerate the development of subsequent therapeutic products and broaden the opportunity for potential strategic alliances.
- ***Delivery Expertise.*** Our team has expertise with lipid nanoparticle, or LNP, delivery technology, which involves encapsulating therapeutic agents into microscopic lipid droplets, as well as expertise with viral delivery and experience with electroporation, an electrical charge-based technique for delivering molecules into cells. With this expertise, we expect to be able to readily translate the LNPs that we are using for our preclinical development to clinical development in humans as well as continue to explore additional delivery methods.
- ***Leading Intellectual Property Position.*** Our licensed patent portfolio encompasses foundational filings on the use of CRISPR/Cas9 systems for gene editing, improvements and modifications of these systems and their components, LNP technologies for delivering protein/nucleic acid complexes and RNA into cells and cell expansion technology relevant to stem cell-based therapies. Our licensed patent portfolio also includes a United States patent application owned by The Regents of the University of California, the University of Vienna and Dr. Emmanuelle Charpentier, which is subject to an interference proceeding. Although The Regents of the University of California, the University of Vienna and Dr. Emmanuelle Charpentier have been named the senior party in the interference, meaning that they are presumed to be the earlier inventor, any adverse outcome of such proceeding may affect our ability to utilize this intellectual property.

Our Pipeline

We plan to use the CRISPR/Cas9 system across two broad areas: *in vivo* applications, in which CRISPR/Cas9 therapeutic products are delivered directly to target cells within the body, and *ex vivo* applications, in which cells are removed from a patient's body, modified using CRISPR/Cas9 and then returned to the patient. To maximize our opportunity to rapidly develop clinically successful products, we have applied a risk-mitigated approach to selecting our initial indications, which we refer to as our sentinel indications, that have significant unmet medical needs based on four primary axes:

- the type of edit – knockout, repair or insertion;
- the delivery modality for *in vivo* and *ex vivo* applications;
- the presence of established therapeutic endpoints; and
- the potential for the CRISPR/Cas9 system to provide therapeutic benefits when compared to existing therapeutic modalities.

We are targeting sentinel indications using *in vivo* and *ex vivo* approaches to demonstrate proof-of-concept of the various facets of our technology, including delivery, type of edit, and selectivity and efficiency. The learnings we gain from each indication will pave the way for rapid expansion of our pipeline by targeting subsequent indications that use the same or analogous delivery vehicles, guide structures and types of edits.

The following table illustrates our current discovery programs and opportunities:

Programs	Partnerships	Type of Edit	Delivery	Upcoming Milestones
In Vivo				
Transthyretin Amyloidosis (ATTR)	Co-developing with Regeneron	Knockout	LNP to Liver	Select 1 to 2 development candidates and advance to IND enabling studies in the next 12 to 24 months
Alpha-1 Antitrypsin Deficiency (AATD)	Proprietary	Knockout Repair	LNP to Liver	
Hepatitis B Virus (HBV)	Proprietary	Knockout	LNP to Liver	
Inborn Errors of Metabolism (IEMs)	Proprietary	Knockout Repair Insertion	LNP to Liver	
Ex Vivo				
Hematopoietic Stem Cells (HSCs)	Selectively partnered with Novartis; proprietary	Knockout Repair Insertion	Electroporation	First Novartis IND expected to be submitted in 2018
CAR T Cells	Partnered with Novartis	Knockout Insertion	Electroporation	Advance preclinical development

In Vivo *Pipeline*

We have chosen four sentinel *in vivo* liver programs employing different editing strategies to explore the scope of the gene edits through the CRISPR/Cas9 system:

- Transthyretin amyloidosis, or ATTR, program, which utilizes a gene knockout strategy;
- Alpha-1 antitrypsin deficiency, or AATD, program, which utilizes either a gene knockout strategy or a gene repair strategy;
- Hepatitis B virus, or HBV, program, which utilizes a knockout strategy to target covalently closed circular DNA, or cccDNA; and

- Inborn errors of metabolism, or IEM, program, which has the potential to utilize all three editing approaches, including targeted DNA insertion.

Our initial efforts on *in vivo* delivery approaches focus on the use LNPs for delivery of the CRISPR/Cas9 complex to the liver. We see multiple advantages of using LNPs as our initial *in vivo* delivery vehicles, particularly as being optimized by us for delivery of the CRISPR/Cas9 system. Certain LNPs have demonstrated efficacy, safety and favorable tolerability and are currently used as a delivery system for therapeutic small interfering RNA, or siRNA, as well as therapeutic messenger RNA, or mRNA. mRNA is RNA that encodes proteins, while siRNA is RNA that can interfere with the function of mRNA. With our team's expertise with LNP delivery technology, we expect to be able to readily translate the LNPs that we are using for our preclinical development to clinical development in humans. As we progress our sentinel *in vivo* liver programs with LNP delivery, we are actively investigating additional delivery methods, including evaluating multiple viral delivery vectors, which are viruses engineered to carry non-viral nucleic acids to patients' cells. These additional or enhanced delivery methods may assist us in exploring therapies for indications that require delivery to organs beyond the liver.

Transthyretin Amyloidosis Program (Knockout Strategy)

ATTR is a disorder caused by certain genetic mutations that can cause the transthyretin, or TTR, protein to aggregate and accumulate in tissues. Accumulation of this protein in peripheral nerves or the heart can result in a severe loss of nerve or cardiac function. Estimates suggest that approximately 50,000 patients suffer from ATTR worldwide. We believe that we can apply the CRISPR/Cas9 technology to potentially cure ATTR by knocking out expression of the defective *TTR* gene in the liver, reducing or eliminating the production of the disease-causing mutant form of the TTR protein.

Alpha-1 Antitrypsin Deficiency Program (Knockout and Repair Strategies)

AATD is an inherited genetic disorder that may cause lung or liver disease. The lung disease may result in chronic obstructive pulmonary disease, or COPD, a progressive disease that causes substantial morbidity and mortality, while the liver disease is characterized by inflammation of the liver. In the United States, an estimated 60,000 to 100,000 people have AATD, which arises when patients have a mutation in both copies of the *SERPINA1* gene. We believe that we can apply the CRISPR/Cas9 technology to potentially cure AATD by addressing the defective *SERPINA1* gene. We intend to evaluate two editing approaches – a knockout and a repair – which will address either the liver disease or both the lung and liver diseases, respectively. We expect the progress of our AATD repair program to follow our AATD knockout program.

Hepatitis B Virus Program (Knockout Strategy)

Hepatitis B is an infection of the liver caused by HBV, which can progress from acute to chronic infection in approximately 5-10% of infected adults. We believe we can use the CRISPR/Cas9 system to help eliminate the reservoirs of cccDNA, the source of chronic infection, which cannot be eradicated by current treatments, in HBV-infected patients. We intend to evaluate different knockout approaches to destroy or render inactive cccDNA *in vivo*, including cleaving the cccDNA at a single site or at combinations of sites. We believe it is also possible that a common treatment solution can be developed for all genotypes, or genetic variants, of HBV because we can target portions of the cccDNA sequences that do not vary across genotypes. In addition, there is potential to reduce viral resistance as the virus itself is eradicated. We have completed a bioinformatics analysis of potential CRISPR/Cas9 target sites in the HBV genome to select a set of guide RNAs, including several that can be effective across all HBV genotypes.

Inborn Errors of Metabolism Program (Knockout, Repair and Insertion Strategies)

Individual IEMs are rare disorders, many having an incidence of fewer than 1 in 100,000 births, which typically involve defects in single genes that code for enzymes that drive the metabolic machinery of the cell. We

are evaluating a large set of candidate IEMs, including primary hyperoxaluria type 1, or PH1, argininosuccinic lyase deficiency, ornithine transcarbamylase deficiency, phenylketonuria, or PKU, and maple syrup urine disease. Our selection criteria for our initial IEM indications include identifying diseases that originate in the liver, have well-defined mutations that can be addressed by a single knockout, repair or insertion approach, have readily measurable therapeutic endpoints with observable clinical responses, and for which there are no effective treatments.

Ex Vivo *Pipeline*

Our sentinel *ex vivo* programs are in CAR T cell and hematopoietic stem cell, or HSC, applications. Our sentinel *ex vivo* programs will help inform the broader applicability of CRISPR/Cas9 in an *ex vivo* setting, which we plan to explore in eXtellia, a division of our company focused on the application of CRISPR/Cas9 gene editing in the fields of immuno-oncology and autoimmune and inflammatory diseases. We expect eXtellia to focus on other relevant types of immune cells, such as natural killer, or NK cells, and tumor infiltrating lymphocytes, or TILs, for immuno-oncology applications, T regulatory cells, or Tregs, for autoimmune disorders and other cell types, including induced pluripotent stem cells, mesenchymal stem cells and muscle satellite stem cells for tissue-targeted treatments. For our *ex vivo* programs requiring delivery to extracted cells such as HSCs, which are the stem cells from which all of the various types of blood cells originate, or T cells, we initially plan to deliver the CRISPR/Cas9 complex by electroporation, an electrical charge-based technique for delivering molecules into cells. In parallel with electroporation, we are considering several newer technologies for delivery to cells *ex vivo*, which may provide advantages in delivery efficiency or cell viability.

CAR T Cell Program

In CAR T cell therapy, naturally occurring immune cells, specifically T cells, are modified *ex vivo* by inserting a chimeric antigen receptor, or CAR, to selectively target cancer cells and activate an immune response against them. The CAR is an engineered fusion protein expressed on a cell's surface that has an antibody-based portion capable of recognizing certain markers on other cells, such as cancer cells, and a signaling portion inside the cell capable of delivering the desired signals when the antibody portion binds its markers. We believe CRISPR/Cas9 can further enhance CAR T cells by, for example, generating a universal donor CAR T cell or modifying immune checkpoint pathways.

HSC Program

For our HSC programs, we intend to apply CRISPR/Cas9 to correct defective proteins in HSCs of a given patient for the potential treatment of blood disorders or primary immune deficiencies. Challenges of developing stem cell products include the relatively low quantity of available cells for treatment and a limited ability to expand HSCs *ex vivo*. We expect to counter these challenges by employing a proprietary small molecule for HSC expansion to which Novartis has granted us rights. This compound could allow us to generate large numbers of HSCs for re-implantation in patients after editing. We are also pursuing a number of potential gene targets and therapeutic indications in collaboration with Novartis. Our selection criteria for development programs include, among others, disease severity, existing treatment options, delivery efficiency, the nature of the genetic edit required and the expected performance of cells modified by the procedure. We expect the first investigational new drug application for an HSC program under the Novartis collaboration to be submitted by Novartis in 2018.

Ex Vivo *Collaboration*

Under our strategic collaboration with Novartis, our CAR T cell program is exclusive to Novartis. We retain the right to develop and commercialize certain of the HSC programs that we discover with Novartis, while others will be proprietary to Novartis. Under this collaboration agreement, we received an upfront technology access payment of $10.0 million and are entitled to up to an additional $40.0 million, in aggregate, in additional technology access fees and research payments during the five-year collaboration term. In addition, we are eligible to earn up to $230.3 million in development, regulatory and sales-based milestone payments and mid single-digit royalties, in each case, on a per-product basis for the products developed by Novartis.

Strategy

Our goal is to build a fully integrated, product-driven biotechnology company, focused on developing and commercializing potentially curative CRISPR/Cas9-based therapeutics. Our approach to advancing the broad potential of gene editing includes our plans to:

- focus on sentinel indications that enable us to fully develop the potential of the CRISPR/Cas9 system;
- aggressively pursue *in vivo* liver indications to develop therapeutics rapidly with existing delivery technology;
- continue to develop and expand our *ex vivo* therapeutic programs through our eXtellia division;
- continue to leverage strategic partnerships to accelerate clinical development; and
- grow our leadership position in the field of gene editing.

Series B Financing

To enable further development of our technology and *in vivo* and *ex vivo* programs, we completed a private placement for gross proceeds of $70.0 million of our Series B preferred stock in August 2015 led by OrbiMed Advisors LLC. Additional investors in this financing included Fidelity Management & Research, Janus Capital Management, Foresite Capital, Sectoral Asset Management, EcoR1 Capital LLC, our existing investors, Atlas Venture Fund IX, LP and Novartis, as well as other leading mutual fund and healthcare investors.

Risks Associated With Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the section entitled "Risk Factors" appearing immediately following this prospectus summary. These risks include the following:

- CRISPR/Cas9 gene editing technology is a novel technology that is not yet proven or clinically validated for human therapeutic use. If we are unable to develop viable product candidates, achieve regulatory approval for any such product candidate, or market and sell any product candidates, we may never achieve profitability.
- Our ability to generate product revenue is dependent on the success of our application of CRISPR/Cas9 technology for human therapeutic use, which is at an early stage of development and will require significant additional discovery efforts, preclinical testing and clinical studies, as well as applicable regulatory guidance for preclinical and clinical studies from the U.S. Food and Drug Administration and other regulatory authorities, before we can seek regulatory approval and begin commercial sales of any potential product candidates.
- Negative public opinion and increased regulatory scrutiny of gene editing therapies may damage public perception of the safety of any product candidates that we develop and adversely affect our ability to conduct clinical trials or obtain regulatory approvals for such product candidates.
- Third-party claims of intellectual property infringement against us, our licensors or our collaborators may prevent or delay our product discovery and development efforts.
- We license a patent family under our license agreement with Caribou Biosciences, Inc. that covers CRISPR/Cas9 systems and methods to edit genes. A United States patent application in this patent family is subject to an interference proceeding, the outcome of which may adversely affect our ability to utilize this intellectual property.
- We may not be successful in our efforts to use and enhance our gene editing technology to create a pipeline of product candidates and develop commercially successful products, or we may expend our limited resources on programs that do not yield a successful product candidate.

- We face significant competition in an environment of rapid technological change. We are aware of at least three other CRISPR/Cas companies and five gene editing companies with platforms other than CRISPR/Cas. The possibility that one or more of our competitors may develop therapies that are more effective than ours or achieve regulatory approval before us may harm our business and financial condition.
- We have never generated any revenue from product sales, do not expect to do so in the near term and may never achieve or maintain profitability. We expect to incur losses for the foreseeable future and will need to raise substantial additional funding, even with the net proceeds expected from this offering and the concurrent private placements.
- We have entered into, and may in the future enter into, collaborations with third parties to develop product candidates. If these collaborations are not successful, our business could be adversely affected.

Implications of Being an Emerging Growth Company

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

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

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, or SEC. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. We have irrevocably elected to ''opt out'' of the exemption for the delayed adoption of certain accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Concurrent Private Placements

Regeneron and Novartis, our collaboration partners, have agreed to purchase $50.0 million and $5.0 million, respectively, of our common stock in separate concurrent private placements at a price per share equal to the public offering price. The sale of such shares will not be registered under the Securities Act of 1933, as amended. The closing of this offering is not conditioned upon the closing of such concurrent private placements.

Corporate History

We were incorporated under the laws of the State of Delaware in May 2014. We are the successor in interest to Intellia Therapeutics, LLC, a limited liability company formed under the laws of the State of Delaware in

July 2014 and the former holder of all of our outstanding shares of stock. Our principal executive office is located at 130 Brookline Street, Suite 201, Cambridge, MA 02139, and our telephone number is (857) 285-6200. Our website address is www.intelliatx.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

We own various U.S. federal trademark applications and unregistered trademarks, including our company name. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols ® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Reorganization

As more fully described in the section entitled "Reorganization" appearing elsewhere in this prospectus, on August 20, 2015, we completed a series of transactions pursuant to which Intellia Therapeutics, LLC merged with and into Intellia Therapeutics, Inc., with Intellia Therapeutics, Inc. continuing as the surviving corporation. In connection with this Reorganization, all of the outstanding common and preferred unitholders of Intellia Therapeutics, LLC received shares of preferred stock of Intellia Therapeutics, Inc., and holders of incentive units in Intellia Therapeutics, LLC received shares of restricted common stock in Intellia Therapeutics, Inc.

THE OFFERING

Common stock offered in this offering	5,000,000 shares
Common stock to be sold to Regeneron and Novartis in the concurrent private placements	$55.0 million (or 3,235,293 shares assuming an initial public offering price of $17.00, the midpoint of the estimated range set forth on the cover page of this prospectus)
Common stock to be outstanding immediately after this offering and the concurrent private placements	34,276,005 shares (35,026,005 shares if the underwriters exercise their option to purchase additional shares in full)
Underwriters' option to purchase additional shares	We have granted a 30-day option to the underwriters to purchase up to an aggregate of 750,000 additional shares of common stock from us at the public offering price, less underwriting discounts and commissions on the same terms as set forth in this prospectus.
Use of proceeds	We estimate that we will receive net proceeds from the sale of shares of our common stock in this offering of approximately $76.5 million, or $88.3 million if the underwriters exercise their option to purchase additional shares in full, assuming an initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering to advance the research and development of our sentinel indications, progress additional *in vivo* and *ex vivo* pipeline product candidates, further develop our delivery technologies and CRISPR/Cas9 gene editing platform and for working capital and other general corporate purposes. For a more complete description of our intended use of the proceeds from this offering, see "Use of Proceeds."
Risk factors	You should carefully read the "Risk Factors" section of this prospectus for a discussion of factors that you should consider before deciding to invest in our common stock.
Proposed NASDAQ Global Market symbol	"NTLA"

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $30.0 million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering.

The number of shares of our common stock to be outstanding after this offering and the concurrent private placements is based on 26,040,712 shares of our common stock outstanding as of March 31, 2016, including 23,481,957 shares of our common stock issuable upon the automatic conversion of all outstanding shares of our preferred stock upon the closing of this offering, and excludes:

- 496,539 shares of common stock reserved for future issuance as of March 31, 2016 under our 2015 Stock Option and Incentive Plan, or the 2015 Plan, which will be amended and restated as our 2015 Amended and Restated Stock Option and Incentive Plan, or the 2015 Restated Plan, effective upon the effectiveness of the registration statement of which this prospectus is a part;
- 2,617,932 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2016, at a weighted average exercise price of $6.69 per share; and
- an additional 2,001,579 shares of common stock that will be made available for future issuance under our equity compensation plans upon the closing of this offering.

Unless otherwise indicated, all information in this prospectus gives effect to the Reorganization described in the section entitled “Reorganization” and reflects or assumes the following:

- the filing of our amended and restated certificate of incorporation upon the closing of this offering and the effectiveness of our amended and restated by-laws upon the effectiveness of the registration statement of which this prospectus is a part;
- the conversion of all of our outstanding shares of preferred stock into an aggregate of 23,481,957 shares of common stock upon the completion of this offering; and
- no exercise by the underwriters of their option to purchase up to 750,000 additional shares of common stock in this offering.

In addition, unless otherwise indicated all information in this prospectus gives effect to a one-for-1.7 reverse stock split of our common stock that was effected on April 25, 2016.

SUMMARY CONSOLIDATED FINANCIAL DATA

The summary consolidated financial data set forth below should be read together with the consolidated financial statements and the related notes to those statements, as well as the sections entitled "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." We have derived the summary consolidated statement of operations data for the period from May 7, 2014 (inception) to December 31, 2014 and for the year ended December 31, 2015 and the summary consolidated balance sheet data as of December 31, 2015 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 the future.

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
	(in thousands, except per unit and per share data)	
Collaboration revenue	$ —	$ 6,044
Operating expenses:		
Research and development	1,105	11,170
In-process research and development	6,055	—
General and administrative	2,379	8,283
Total operating expenses	9,539	19,453
Loss before income taxes	(9,539)	(13,409)
Benefit from income taxes	—	1,012
Net loss	$ (9,539)	$ (12,397)
Net loss per common unit, basic and diluted	$ (11.55)	$ —
Net loss per share attributable to common stockholders, basic and diluted	$ —	$ (51.02)
Weighted average common units outstanding, basic and diluted	826	—
Weighted average shares outstanding, basic and diluted	—	243
Pro forma net loss per share, basic and diluted (unaudited)(1)		$ (0.70)
Pro forma weighted average shares outstanding, basic and diluted (unaudited)(1)		17,664

	As of December 31, 2015		
	Actual	Pro Forma(2)	Pro Forma As Adjusted(3)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 75,816	$ 75,816	$ 207,266
Working capital(4)	66,931	66,931	198,381
Total assets	82,139	82,139	213,589
Deferred revenue	10,312	10,312	10,312
Convertible preferred stock	88,557	—	—
Total stockholders' (deficit) equity	(21,201)	67,356	198,806

(1) Basic and diluted pro forma net loss per share give effect to the conversion of all shares of preferred stock issued in connection with the Reorganization into shares of common stock immediately prior to the completion of this offering, assuming such conversion occurred on the later of May 7, 2014 (inception) or the issuance date of the corresponding unit that converted to preferred stock in the Reorganization.

(2) Pro forma amounts give effect to the automatic conversion of all of our outstanding shares of preferred stock into an aggregate of 23,481,957 shares of common stock upon the completion of this offering.

(3) Pro forma as adjusted amounts reflect pro forma adjustments described in footnote (2) as well as (i) the sale of 5,000,000 shares of our common stock in this offering at the assumed initial public offering price of $17.00 per share, 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 and (ii) our sale of $55.0 million of our common stock in concurrent private placements to Regeneron and Novartis at the assumed offering price of $17.00 per share. A $1.00 increase (decrease) in the assumed initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash, working capital, total assets and total stockholders' equity by approximately $4.7 million, assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares offered by us in this offering would increase (decrease) the net proceeds to us from this offering by approximately $15.8 million, assuming the assumed initial public offering price remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Pro forma as adjusted amounts do not include a $75.0 million upfront payment received from Regeneron in April 2016 under our license and collaboration agreement.

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

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risks and uncertainties, together with all other information in this prospectus, including our consolidated financial statements and related notes and "Management's Discussion and Analysis of Results of Operations and Financial Condition," before investing in our common stock. Any of the risk factors we describe below could adversely affect our business, financial condition or results of operations. The market price of our common stock could decline if one or more of these risks or uncertainties actually occur, causing you to lose all or part of the money you paid to buy our common stock. Additional risks that we currently do not know about or that we currently believe to be immaterial may also impair our business. Certain statements below are forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements" in this prospectus.

Risks Related to Our Business, Technology and Industry

CRISPR/Cas9 gene editing technology is a novel technology that is not yet clinically validated for human therapeutic use. The approaches we are taking to discover and develop novel therapeutics using CRISPR/Cas9 systems are unproven and may never lead to marketable products. If we are unable to develop viable product candidates, achieve regulatory approval for any such product candidate or market and sell any product candidates, we may never achieve profitability.

We are focused on developing potentially curative medicines utilizing the CRISPR/Cas9 gene editing technology. Although there have been significant advances in the field of gene therapy, which typically involves introducing a copy of a gene into a patient's cell, and gene editing in recent years, CRISPR-based gene editing technologies are new and largely unproven. The CRISPR/Cas9 technologies that we have licensed and that we intend to develop have not yet been clinically tested by us, nor are we aware of any clinical trials for safety or efficacy having been completed by third parties involving these technologies. The scientific evidence to support the feasibility of developing products based on these technologies is both preliminary and limited. Successful development of products by us will require solving a number of issues, including safely delivering a therapeutic into target cells safely within the human body or in an *ex vivo* setting, optimizing the efficiency and specificity of such products, and ensuring the therapeutic selectivity of such products. There can be no assurance we will be successful in solving any or all of these issues.

We have concentrated our research efforts to date on bringing CRISPR/Cas9 therapeutics to the clinic for our initial indications, which we call our sentinel indications, and our future success is highly dependent on the successful development of CRISPR-based gene editing technologies, cellular delivery methods and therapeutic applications. Our sentinel indications are the focus of our initial development efforts, and we may decide to alter or abandon these programs as new data become available and we gain experience in developing CRISPR/Cas9-based therapeutics. We cannot be sure that our CRISPR/Cas9 technologies will yield satisfactory products that are safe and effective, scalable or profitable in our sentinel indications or any other indication we pursue.

Public perception and related media coverage of potential therapy-related safety issues, including adoption of new therapeutics or novel approaches to treatment, as well as ethical concerns related specifically to gene editing and CRISPR/Cas9, may adversely influence the willingness of subjects to participate in clinical trials, or if any therapeutic is approved, of physicians to subscribe to the novel treatment mechanics. Physicians, hospitals and third-party payors often are slow to adopt new products, technologies and treatment practices that require additional upfront costs and training. Physicians may not be willing to undergo training to adopt this novel and personalized therapy, may decide the therapy is too complex to adopt without appropriate training and may choose not to administer the therapy. In addition, responses by the U.S., state or foreign governments to negative public perception or ethical concerns may result in new legislation or regulations that could limit our ability to develop or commercialize any product candidates, obtain or maintain regulatory approval or otherwise achieve profitability. Based on these and other factors, hospitals and payors may decide that the benefits of this new therapy do not or will not outweigh its costs.

Development activities in the field of CRISPR/Cas9 are currently subject to a number of risks related to the ownership and use of certain intellectual property rights that are subject to patent interference proceedings. For

additional information regarding the risks that may apply to our and our licensors' intellectual property rights, see the section entitled "—Risks Related to Our Intellectual Property" appearing elsewhere in this prospectus for more information.

Our ability to generate product revenue is dependent on the success of our application of CRISPR/Cas9 technology for human therapeutic use, which is at an early stage of development and will require significant additional discovery efforts, preclinical testing and clinical studies, as well as applicable regulatory guidance for preclinical testing and clinical studies from the FDA and other regulatory authorities, before we can seek regulatory approval and begin commercial sales of any potential product candidates.

Our ability to generate product revenue is highly dependent on our ability to obtain regulatory approval of and successfully commercialize one or more of our product candidates. Any product candidates we discover will require preclinical, clinical and regulatory review and approval in each jurisdiction in which we intend to market the products, substantial investment, access to sufficient commercial manufacturing capacity and significant marketing efforts before we can generate any revenue from product sales. Before obtaining marketing approval from regulatory authorities for the sale of a product candidate, we must conduct extensive clinical trials to demonstrate the safety, purity and potency, as well as the effectiveness of the product candidates in humans. We cannot be certain that any of our product candidates will be successful in clinical trials and even if successful, they may not receive regulatory approval.

Our approach to developing therapies for genetic-based and viral diseases centers on using the CRISPR/Cas9 technology to introduce or remove genetic information in order to treat various disorders. Because this is a new therapeutic approach, discovering, developing and commercializing our product candidates subject us to a number of challenges, including:

- obtaining regulatory approval from the U.S. Food and Drug Administration, or FDA, and other regulatory authorities that have very limited or no experience with the clinical development of CRISPR/Cas9 therapeutics;
- seeking and obtaining regulatory approval from the FDA and other regulatory authorities in light of no guidance regarding potential regulatory pathways for this category of therapeutics, including preclinical and clinical requirements for approval of an investigational new drug application, or IND;
- educating medical personnel regarding the potential benefits and side effect profile of each of our product candidates;
- developing processes for the safe administration of these products, including long-term follow-up for all patients who receive treatment with any of our product candidates;
- sourcing clinical and, if approved, commercial supplies for the materials used to manufacture and process our product candidates;
- developing a manufacturing process and distribution network with a cost of goods that allows for an attractive return on investment; and
- establishing sales and marketing capabilities after obtaining any regulatory approval to gain market acceptance.

Additionally, because our technology involves gene editing across multiple cell and tissue types, we are subject to many of the challenges and risks that gene therapies face, including:

- regulatory requirements governing gene and cell therapy products have changed frequently and may continue to change in the future. To date, no products that involve the genetic modification of patient cells have been approved in the United States and only one has been approved in the European Union, or EU;
- improper insertion of a gene sequence into a patient's chromosome could lead to lymphoma, leukemia or other cancers, or other aberrantly functioning cells;

- the FDA recommends a follow-up observation period of 15 years or longer for all patients who receive treatment using gene therapies, and we may need to adopt such an observation period for our product candidates; and
- clinical trials using genetically modified cells conducted at institutions that receive funding for recombinant DNA research from the U.S. National Institutes of Health, or the NIH, are subject to review by the NIH Office of Biotechnology Activities' Recombinant DNA Advisory Committee, or the RAC. Although the FDA decides whether individual protocols may proceed, the RAC review process can impede the initiation of a clinical trial, even if the FDA has reviewed the study and it has become effective under an IND.

To date, neither we nor any other company has received regulatory approval to commence human clinical trials or to market therapeutics utilizing CRISPR/Cas9. The regulatory pathway for therapeutics such as those we are developing is unclear and the FDA and other regulatory authorities have not yet provided written guidance regarding preclinical or clinical studies or regulatory approval pathways for gene editing therapeutics.

In addition, if any product candidates encounter safety or efficacy problems, developmental delays, regulatory issues or other problems, our development plans and business could be significantly harmed. Further, competitors that are developing products with similar technology may experience problems with their product candidates or programs that could in turn cause us to identify problems with our product candidates and programs that would potentially harm our business.

Even if we obtain regulatory approval of any product candidates, such candidates may not gain market acceptance among physicians, patients, hospitals, third-party payors and others in the medical community.

The use of the CRISPR/Cas9 system as a framework for developing gene editing therapies is a recent development and may not become broadly accepted by physicians, patients, hospitals, third-party payors and others in the medical community. A variety of factors will influence whether our product candidates are accepted in the market, including, for example:

- the clinical indications for which our product candidates are approved;
- the potential and perceived advantages of our product candidates over alternative treatments;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- limitations or warnings contained in the labeling approved by the FDA or other regulatory authorities;
- the timing of market introduction of our product candidates as well as competitive products;
- the cost of treatment in relation to alternative treatments;
- the amount of upfront costs or training required for physicians to administer our product candidates;
- the availability of adequate coverage, reimbursement and pricing by third-party payors and government authorities;
- patients' ability to access physicians and medical centers capable of delivering any therapies that we develop;
- the willingness of patients to pay out of pocket in the absence of coverage and reimbursement by third-party payors and government authorities;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- relative convenience and ease of administration, including as compared to alternative treatments and competitive therapies;
- any restrictions on the use of our product candidates together with other medications;

- interactions of our product candidates with other medicines patients are taking;
- potential adverse events for any products developed, or negative interactions with regulatory agencies, by us or others in the gene therapy and gene editing fields; and
- the effectiveness of our sales and marketing efforts and distribution support.

Even if our products achieve market acceptance, we may not be able to maintain that market acceptance over time if new products or technologies are introduced that are more favorably received than our products, are more cost effective or render our products obsolete. In addition, adverse publicity due to the ethical and social controversies surrounding the therapeutic use of CRISPR/Cas9 or other therapeutics mediums such as viral vectors that we anticipate using in our clinical trials may limit market acceptance of our product candidates. If our product candidates are approved but fail to achieve market acceptance among physicians, patients, hospitals, third-party payors or others in the medical community, we will not be able to generate significant revenue.

Negative public opinion and increased regulatory scrutiny of CRISPR/Cas9, gene editing or gene therapy generally may damage public perception of the safety of any product candidates that we develop and adversely affect our ability to conduct our business or obtain regulatory approvals for such product candidates.

Gene therapy in general, and gene editing in particular, remain novel technologies, with no gene therapy product approved to date in the United States and only one gene therapy product approved to date in the EU. Public perception may be influenced by claims that gene therapy or gene editing, including through the use of CRISPR/Cas9, is unsafe or unethical, and gene therapy or gene editing may not gain the acceptance of the public or the medical community. In particular, our success will depend upon physicians who specialize in the treatment of diseases targeted by our product candidates prescribing treatments that involve the use of our product candidates in lieu of, or in addition to, existing treatments with which they are more familiar and for which greater clinical data may be available. In addition, responses by the U.S., state or foreign governments to negative public perception or ethical concerns may result in new legislation or regulations that could limit our ability to develop or commercialize any product candidates, obtain or maintain regulatory approval or otherwise achieve profitability. More restrictive statutory regimes, government regulations or negative public opinion would have an adverse effect on our business, financial condition, results of operations and prospects and may delay or impair the development and commercialization of our product candidates or demand for any products we may develop. For example, earlier gene therapy trials led to several well-publicized adverse events, including cases of leukemia and death. Serious adverse events in our clinical trials, or other clinical trials involving gene therapy or gene editing products or our competitors' products, even if not ultimately attributable to the relevant product candidates, and the resulting publicity could result in increased government regulation, unfavorable public perception, potential regulatory delays in the testing or approval of our product candidates, stricter labeling requirements for those product candidates that are approved and a decrease in demand for any such product candidate.

Coverage and reimbursement may be limited or unavailable in certain market segments for our product candidates, if approved, which could make it difficult for us to sell any product candidates or therapies profitably.

The success of our product candidates, if approved, depends on the availability of adequate coverage and reimbursement from third-party payors. In addition, because our product candidates represent new approaches to the treatment of genetic-based diseases, we cannot be sure that coverage and reimbursement will be available for, or accurately estimate the potential revenue from, our product candidates or assure that coverage and reimbursement will be available for any product that we may develop.

Patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors are critical to new product acceptance.

Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs and treatments they will cover and the amount of reimbursement. Coverage

and reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors. As a result, obtaining coverage and reimbursement approval of a product from a government or other third-party payor is a time-consuming and costly process that could require us to provide to each payor supporting scientific, clinical and cost-effectiveness data for the use of our products on a payor-by-payor basis, with no assurance that coverage and adequate reimbursement will be obtained. Even if we obtain coverage for a given product, the resulting reimbursement payment rates might not be adequate for us to achieve or sustain profitability or may require co-payments that patients find unacceptably high. Additionally, third-party payors may not cover, or provide adequate reimbursement for, long-term follow-up evaluations required following the use of our gene-modifying products. 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. Because our product candidates may have a higher cost of goods than conventional therapies, and may require long-term follow up evaluations, the risk that coverage and reimbursement rates may be inadequate for us to achieve profitability may be greater. There is significant uncertainty related to insurance coverage and reimbursement of newly approved products. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

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 any of our product candidates due to the trend toward managed healthcare, the increasing influence of health maintenance organizations, cost containment initiatives and additional legislative changes.

We intend to seek approval to market our product candidates in both the United States and in selected foreign jurisdictions. If we obtain approval in one or more foreign jurisdictions for our product candidates, we will be subject to rules and regulations in those jurisdictions. In some foreign countries, particularly those in the EU, the pricing of biologics is subject to governmental control and other market regulations which could put pressure on the pricing and usage of our product candidates. In these countries, pricing negotiations with governmental authorities can take considerable time after obtaining marketing approval of a product candidate. In addition, market acceptance and sales of our product candidates will depend significantly on the availability of adequate coverage and reimbursement from third-party payors for our product candidates and may be affected by existing and future health care reform measures.

Research and development of biopharmaceutical products is inherently risky. We may not be successful in our efforts to use and enhance our gene editing technology to create a pipeline of product candidates, obtain regulatory approval and develop commercially successful products, or we may expend our limited resources on programs that do not yield a successful product candidate and fail to capitalize on potential product candidates or diseases that may be more profitable or for which there is a greater likelihood of success. If we fail to develop product candidates, our commercial opportunity, if any, will be limited.

We do not currently have any product candidates. We are at an early stage of development and our technology and approach has not yet led, and may never lead, to any product candidate or any approved or commercially successful products. Even if we are successful in building our pipeline of product candidates,

completing clinical development, obtaining regulatory approvals and commercializing product candidates will require substantial additional funding beyond the net proceeds of this offering and concurrent private placements and are prone to the risks of failure inherent in therapeutic product development. Investment in biopharmaceutical product development involves significant risk that any potential product candidate will fail to demonstrate adequate efficacy or an acceptable safety profile, gain regulatory approval, or become commercially viable.

We cannot provide any assurance that we will be able to successfully advance any product candidates that we discover through the research process. Our research programs may initially show promise, yet fail to yield product candidates for clinical development or commercialization for many reasons, including the following:

- our technology and approach may not be successful in identifying product candidates;
- we may not be able or willing to assemble sufficient resources to acquire or discover product candidates;
- our product candidates may not succeed in preclinical or clinical testing;
- our planned risk mitigation strategy for selecting our sentinel indications may fail or we may not be able to efficiently apply learnings from our initial development programs to future development programs;
- we may be unable to optimize the therapeutic efficiency, specificity, or selectivity of our future products candidates;
- our therapeutic delivery systems may fail so that even a product candidate with therapeutic activity does not demonstrate a clinically meaningful therapeutic effect;
- a product candidate may not demonstrate in patients the biological, chemical and pharmacological properties identified in laboratory studies, or they may interact with human biological systems in unforeseen, ineffective or even harmful ways;
- a product candidate may on further study be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- the therapeutic effect of a product candidate may not be permanent and may diminish over time;
- a single treatment course may not be sufficient for a cure or therapeutic benefit; it may take several treatment courses for the product to be effective;
- a well-defined and achievable pathway to regulatory approval may never materialize for a specific product candidate;
- competitors may develop alternatives that render our product candidates obsolete or less attractive;
- product candidates we develop may be covered by third-party or other exclusive rights or may not receive desired regulatory exclusivity, and we may be unable to protect our intellectual property rights;
- the market for a product candidate may change during our program so that the continued development of that product candidate is no longer reasonable;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all;
- we may be unable to successfully maintain existing collaborations or licensing arrangements or enter into new ones throughout the development process as appropriate; and
- a product candidate may not be accepted as safe and effective by physicians, patients, hospitals, third-party payors and others in the medical community.

If any of these events occur, we may be forced to abandon our development efforts for a program or programs, or we may not be able to identify, discover, develop or commercialize product candidates, which would have a material adverse effect on our business and could potentially cause us to cease operations.

Because we have limited financial and managerial resources, we focus on research programs that we identify as our sentinel indications. 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. For additional information regarding the factors that will affect our ability to achieve revenue from product sales, see the risk factor entitled "-We have never generated any revenue from product sales and our ability to generate revenue from product sales and become profitable depends significantly on our success in a number of factors."

If we do not successfully develop and commercialize product candidates based upon our approach, we will not be able to obtain product revenue in future periods, which likely would result in significant harm to our financial position and adversely affect our stock price. Further, our current exclusive focus on CRISPR/Cas9 technology for developing products as opposed to multiple, more proven technologies for product development increases the risk associated with our business. If we are not successful in developing a product candidate using CRISPR/Cas9 technology, we may not be able to successfully implement an alternative product development strategy.

Clinical development involves a lengthy and expensive process, with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of any product candidates.

All of our lead programs are still in the discovery stage, and their risk of failure is high. It is impossible to predict when or if any of our programs will prove effective and safe in humans or will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of any of our future product candidates in humans. Preclinical and clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. We may be unable to establish clinical endpoints that applicable regulatory authorities would consider clinically meaningful, and a clinical trial can fail at any stage of testing. The outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products.

Successful completion of clinical trials is a prerequisite to submitting a biologics license application, or BLA, to the FDA, a Marketing Authorization Application, or MAA, to the European Medicines Agency, or EMA and similar approval filings to comparable foreign regulatory authorities, for each product candidate and, consequently, the ultimate approval and commercial marketing of any product candidates. We do not know whether any of our clinical trials will begin or be completed on schedule, if at all.

We may experience delays in completing our preclinical studies and initiating or completing clinical trials. We also may experience numerous unforeseen events during, or as a result of, any future clinical trials that we could conduct that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- regulators or institutional review boards, or IRBs, or ethics committees may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable terms with prospective trial sites and prospective contract research organizations, or CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- clinical trials of any product candidates may fail to show safety or efficacy, produce negative or inconclusive results and we may decide, or regulators may require us, to conduct additional preclinical studies or clinical trials or we may decide to abandon product development programs;

- the number of patients required for clinical trials of any 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;
- 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, or may deviate from the clinical trial protocol or drop out of the trial, which may require that we add new clinical trial sites or investigators;
- we may elect to, or regulators, IRBs or ethics committees may require that we or our investigators, suspend or terminate clinical research or trials for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- the cost of preclinical studies and clinical trials of any product candidates may be greater than we anticipate;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate;
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators, IRBs or ethics committees to suspend or terminate the trials, or reports may arise from preclinical or clinical testing of other gene therapies or gene editing based therapies that raise safety or efficacy concerns about our product candidates; and
- the FDA or other regulatory authorities may require us to submit additional data such as long-term toxicology studies, or impose other requirements before permitting us to initiate a clinical trial.

We could also encounter delays if a clinical trial is suspended or terminated by us, the IRBs of the institutions in which such trials are being conducted, the Data Safety Monitoring Board, or DSMB, for such trial or FDA or other regulatory authorities. Such authorities may impose such a 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 FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product or treatment, failure to establish or achieve clinically meaningful trial endpoints, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates. Further, the FDA or other regulatory authorities may disagree with our clinical trial design and our interpretation of data from clinical trials, or may change the requirements for approval even after they have reviewed and commented on the design for our clinical trials.

Our product development costs will increase if we experience delays in clinical testing or marketing approvals. We do not know whether any of our preclinical studies or clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant preclinical or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates and may allow our competitors to bring products to market before we do, potentially impairing our ability to successfully commercialize our product candidates and harming our business and results of operations. Any delays in our preclinical or future clinical development programs may harm our business, financial condition and prospects significantly.

Inconclusive results, lack of efficacy, adverse events or additional safety concerns in clinical trials that we or others conduct may impede the regulatory approval process or overall market acceptance of our future product candidates.

Therapeutic applications of gene editing technologies, and CRISPR/Cas9 in particular, are unproven and must undergo rigorous clinical trials and regulatory review before receiving marketing authorization. If the results of our clinical studies or those of any other third parties, including with respect to gene editing

technology, are inconclusive, fail to show efficacy or if such clinical trials give rise to safety concerns or adverse events, we may:

- be delayed in obtaining marketing approval for our future product candidates, if at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to the addition of labeling statements, such as warnings or contraindications, or other types of regulatory restrictions or scrutiny;
- be subject to changes in the way the product is administered;
- be required to perform additional clinical studies to support approval or be subject to additional post-marketing testing requirements;
- have regulatory authorities withdraw their written guidance, if any, regarding the applicable regulatory approval pathway or any approval of the product in question, or impose restrictions on its distribution in the form of a modified risk evaluation and mitigation strategy, or REMS;
- be sued; or
- experience damage to our reputation.

Additionally, our future product candidates could potentially cause other adverse events that have not yet been predicted and the potentially permanent nature of gene editing effects, including CRISPR/Cas9's effects, on genes may make these adverse events irreversible. The inclusion of critically ill patients in our clinical studies or those of our competitors may result in deaths or other adverse medical events, including those due to other therapies or medications that such patients may be using. Any of these events could prevent us from achieving or maintaining regulatory approval or market acceptance of our future product candidates and impair our ability to achieve profitability.

We have never generated any revenue from product sales and our ability to generate revenue from product sales and become profitable depends significantly on our success in a number of factors.

We have no products approved for commercial sale, have not generated any revenue from product sales, and do not anticipate generating any revenue from product sales until some time after we have received regulatory approval for the commercial sale of a product candidate that we discover. Our ability to generate revenue and achieve and retain profitability depends significantly on our success in many factors, including:

- selecting commercially viable product candidates and effective delivery methods;
- completing research and nonclinical and clinical development of product candidates;
- obtaining regulatory approvals and marketing authorizations for product candidates for which we complete clinical trials;
- developing a sustainable and scalable manufacturing process for product candidates, including establishing and maintaining commercially viable supply relationships with third parties and potentially establishing our own manufacturing capabilities and infrastructure;
- launching and commercializing product candidates for which we obtain regulatory approvals and marketing authorizations, either directly or with a collaborator or distributor;
- accurately assessing the size and addressability of potential patent populations;
- obtaining market acceptance of our product candidates as viable treatment options;
- addressing any competing technological and market developments;
- negotiating favorable terms in any collaboration, licensing or other arrangements into which we may enter;

- maintaining good relationships with our collaborators and licensors;
- maintaining, protecting and expanding our portfolio of intellectual property rights, including patents, trade secrets and know-how; and
- attracting, hiring and retaining qualified personnel.

Even if one or more product candidates that we discover and develop are approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate and the timing of such costs may be out of our control. Our expenses could increase beyond expectations if we are required by the FDA or other regulatory agencies, domestic or foreign, to change our manufacturing processes or assays, or to perform clinical, nonclinical or other types of additional studies. If we are successful in obtaining regulatory approvals to market one or more product candidates, our revenue will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the product, the ability to get reimbursement at any price and whether we own the commercial rights for that territory. If the number of our addressable disease patients is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we expect or the reasonably accepted population for treatment is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenue from sales of such products, even if approved. If we are not able to generate revenue from the sale of any approved products, we may never become profitable.

We face significant competition in an environment of rapid technological change. The possibility that our competitors may achieve regulatory approval before we do or develop therapies that are more advanced or effective than ours may harm our business and financial condition or our ability to successfully market or commercialize our product candidates.

The biotechnology and pharmaceutical industries, including the gene editing field, are characterized by rapidly changing technologies, significant competition and a strong emphasis on intellectual property. We face substantial competition from many different sources, including large and specialty pharmaceutical and biotechnology companies, academic research institutions, government agencies and public and private research institutions.

Competitors in our efforts to provide genetic therapies to patients can be grouped into at least three sets based on their product discovery platforms:

- gene editing companies focused on CRISPR/Cas9 including: CRISPR Therapeutics, Inc., Editas Medicine, Inc. and Tracr Hematology Limited;
- other gene editing companies including: bluebird bio, Inc., Cellectis S.A., Poseida, Inc., Precision BioSciences, Inc. and Sangamo BioSciences; and
- gene therapy companies developing *ex vivo* therapies including: bluebird bio, Inc., Cellectis S.A., and Juno Therapeutics, Inc.

Our competitors will also include companies that are or will be developing other gene editing methods as well as small molecules, biologics and nucleic acid-based therapies for the same indications that we are targeting with our CRISPR/Cas9-based therapeutics.

In addition, certain of our founders previously have had, and may in the future have, affiliations with other gene editing companies.

Any advances in gene therapy or gene editing technology made by a competitor may be used to develop therapies that could compete against any of our product candidates. Many of these competitors have substantially greater research and development capabilities and financial, scientific, technical, manufacturing, marketing, distribution and other resources than we do, and we may not be able to successfully compete with them.

To become and remain profitable, we must discover, develop and eventually commercialize product candidates with significant market potential, which will require us to be successful in a range of challenging

activities. These activities can include completing preclinical studies and clinical trials of product candidates, obtaining marketing approval for product candidates, manufacturing, marketing and selling products that are approved and satisfying any post-marketing requirements. Even if we are successful in selecting and developing any product candidates, in order to compete successfully we may need to be first-to-market or demonstrate that our CRISPR/Cas9-based products are superior to therapies based on different treatment methods. If we are not first-to-market or are unable to demonstrate such superiority, any products for which we are able to obtain approval may not be successful. Furthermore in certain jurisdictions, if a competitor has orphan drug status for a product and if our product candidate is determined to be contained within the scope of a competitor's orphan drug exclusivity, then approval of our product for that indication or disease could potentially be blocked, for example, for up to seven years in the United States.

We may never succeed in any or all of these activities and, even if we do, we may never generate revenues that are significant or large enough to achieve profitability. If we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would decrease the value of our company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company also could cause you to lose all or part of your investment.

We have a very limited operating history, which may make it difficult to evaluate our current business and predict our future performance.

We are very early in our development efforts and all of our lead programs are still in the discovery stage. We were formed in May 2014, have no products approved for commercial sale and have not generated any revenue from product sales. Our ability to generate product revenue or profits, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates, which may never occur. We may never be able to develop or commercialize a marketable product.

Each of our programs will require additional discovery research and then preclinical and clinical development, regulatory approval in multiple jurisdictions, obtaining manufacturing supply, capacity and expertise, building of a commercial organization, substantial investment and significant marketing efforts before we generate any revenue from product sales. In addition, our product candidates must be approved for marketing by the FDA or certain other foreign regulatory agencies, including the EMA, before we may commercialize any product.

Our limited operating history, particularly in light of the rapidly evolving gene editing field, may make it difficult to evaluate our current business and predict our future performance. Our very short history as an operating company makes any assessment of our future success or viability subject to significant uncertainty. We will encounter risks and difficulties frequently experienced by very early stage companies in rapidly evolving fields. If we do not address these risks successfully, our business will suffer.

We have incurred net losses in each period since our inception, anticipate that we will continue to incur net losses in the future and may never achieve profitability.

We are not profitable and have incurred losses in each period since our inception. For the period from May 7, 2014 (inception) to December 31, 2014, we reported a net loss of $9.5 million. For the year ended December 31, 2015, we reported a net loss of $12.4 million. We expect these losses to increase as we continue to incur significant research and development and other expenses related to our ongoing operations, seek regulatory approvals for our future product candidates, scale-up manufacturing capabilities, maintain, expand and protect our intellectual property portfolio and hire additional personnel to support the development of our product candidates and to enhance our operational, financial and information management systems.

A critical aspect of our strategy is to invest significantly in our technology to improve the efficacy and safety of potential product candidates that we discover. Even if we succeed in discovering, developing and ultimately commercializing one or more of these product candidates, we will continue to incur losses for the foreseeable future relating to our substantial research and development expenditures to develop our technologies. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may

adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital. Further, the net losses we incur may fluctuate significantly from quarter to quarter and year to year, such that a period to period comparison of our results of operations may not be a good indication of our future performance.

We will need to raise substantial additional funding, even with the net proceeds expected from this offering and concurrent private placements. If we fail to obtain additional financing, we may be unable to complete the development and commercialization of any product candidates.

Our operations have required substantial amounts of cash since inception. We expect to spend substantial amounts of our financial resources on our discovery programs going forward. If we are able to identity product candidates that are eventually approved, we will require significant additional amounts in order to launch and commercialize our product candidates. For the foreseeable future, we expect to continue to rely on additional financing to achieve our business objectives.

As of December 31, 2015, we had $75.8 million in cash and cash equivalents. We estimate that our net proceeds from this offering and the concurrent private placements will be approximately $131.5 million, based on the initial public offering price of $17.00 per share, which is the midpoint of the price range set forth on the cover of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We expect to use the net proceeds from this offering to advance the research and development of our sentinel indications, to progress additional pipeline product candidates, to further develop our delivery technologies and CRISPR/Cas9 gene editing platform and for working capital and other general corporate purposes. We believe that such proceeds, together with our existing cash, revenue under our collaborations with Novartis Institutes for BioMedical Research, Inc., or Novartis, and Regeneron Pharmaceuticals, Inc., or Regeneron, including a $75.0 million upfront payment received from Regeneron, and the proceeds from our concurrent private placements will be sufficient to fund our operations for at least the next 36 months. However, changing circumstances may cause us to increase our spending significantly faster than we currently anticipate, and we may need to spend more money than currently expected. In this regard, we will require additional capital for the further development and commercialization of any product candidates and may need to raise additional funds sooner if we choose to expand more rapidly than we presently anticipate or due to other unanticipated factors.

We cannot be certain that additional funding will be available on acceptable terms, or at all. We have no committed source of additional capital and if we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of our product candidates or other research and development initiatives. Our collaboration and license agreements may also be terminated if we are unable to meet the payment or other obligations under the agreements. We could be required to seek collaborators for product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available or relinquish or license on unfavorable terms our rights to product candidates in markets where we otherwise would seek to pursue development or commercialization ourselves.

Any of the above events could significantly harm our business, prospects, financial condition and results of operations and cause the price of our common stock to decline.

Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, and restrict our operations.

We will need additional capital in the future to continue our planned operations. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may 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 ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our ability to complete clinical trials or our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for any future 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. If patients are unwilling to participate in our clinical studies because of negative publicity from adverse events in the gene editing field, the novel nature of the CRISPR/Cas9 gene editing technology, the irreversibility of the effects of CRISPR/Cas9 or for other reasons, including competitive clinical studies for similar patient populations, then the timeline for recruiting patients, conducting studies and obtaining regulatory approval of potential products may be delayed. These delays could result in increased costs, delays in advancing our product development, delays in testing the effectiveness of our technology or termination of the clinical studies altogether. In addition, any patients who would otherwise be eligible for clinical trials that we may hold may instead enroll in clinical trials of product candidates of our competitors.

Patient enrollment is affected by other factors including:

- the size and nature of the patient population;
- the severity of the disease under investigation;
- the patient eligibility criteria for the study in question;
- the perceived risks and benefits of the product candidate under study;
- the design of the clinical trial;
- our payments for conducting clinical trials;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

Our inability to enroll a sufficient number of patients for clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in clinical trials may result in increased development costs for any of our potential future product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing. Furthermore, we expect to rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and while we expect to enter into agreements governing their committed activities, we will have limited influence over their actual performance.

We expect to expand our development and regulatory capabilities, and as a result, we may encounter difficulties in hiring capable personnel and otherwise managing our 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 development, regulatory affairs and, if any product candidates receive marketing approval, sales, marketing and distribution. To manage our anticipated future growth, 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 recruit and train additional qualified personnel or to otherwise effectively manage the expansion of our operations. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business and development plans or disrupt our operations.

Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on the research and development, clinical, legal and business development expertise of Nessan Bermingham, Ph.D., our President and Chief Executive Officer, John M. Leonard, M.D., our Chief Medical Officer and José E. Rivera, our Chief Operating Officer and Chief Legal Officer as well as the other principal members of our management, scientific and clinical teams. Although we have entered into employment arrangements with our executive officers, each of them may terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other employees.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be important for our success. The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. 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 successfully develop, gain regulatory approval of and commercialize products using our technology. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies, universities and research institutions for similar personnel. The market for qualified personnel in the biotechnology space generally, and gene editing and gene therapy fields in particular, in and around the Cambridge, Massachusetts area is especially competitive. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategies. Our consultants and advisors may be employed by employers 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 pursue our growth strategy will be limited.

If, in the future, we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market products based on our technologies, we may not be successful in commercializing our products if and when any products candidates or therapies are approved and we may not be able to generate any revenue.

We do not currently have a sales or marketing infrastructure and, as a company, have no experience in the sale, marketing or distribution of therapeutic products. To achieve commercial success for any approved product candidate for which we retain sales and marketing responsibilities, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. In the future, we may choose to build a focused sales and marketing infrastructure to sell, or participate in sales activities with our collaborators for, some of our product candidates if and when they are approved.

There are risks involved with both establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate 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, train 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 product candidates that we may develop;
- the lack of complementary treatments to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we enter into arrangements with third parties to perform sales, marketing and distribution services, our product revenue or the profitability to us from these revenue streams is likely to be lower than if we were to market and sell any product candidates that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell and market our product candidates or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties and any of them may fail to devote the necessary resources and attention to sell and market our product candidates effectively. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we may not be successful in commercializing our product candidates. Further, our business, results of operations, financial condition and prospects will be materially adversely affected.

Our technological advancements and any potential for revenue may be derived in part from our collaborations with Novartis and Regeneron, and if either of these collaboration agreements were to be terminated, our business, financial condition, results of operations and prospects would be harmed.

In December 2014, we entered into a collaboration agreement with Novartis regarding the discovery of new CRISPR/Cas9-based therapies principally using chimeric antigen receptor T cells, or CAR T cells, and hematopoietic stem cells, or HSCs. Under the Novartis collaboration agreement, we received an upfront commitment to advance multiple programs. Pursuant to the Novartis agreement, we granted Novartis exclusive rights to further develop any products arising out of the CAR T cell program. Regarding HSCs, we plan to jointly advance multiple programs with Novartis and have agreed to a process for assigning development and ownership rights, which will enable us to develop our own proprietary HSC pipeline.

In April 2016, we entered into a collaboration agreement with Regeneron that includes a product component to research, develop and commercialize CRISPR/Cas-based therapeutic products primarily focused on gene editing in the liver as well as a technology collaboration component, pursuant to which we and Regeneron will engage in research and development activities aimed at discovering and developing novel technologies and improvements to CRISPR/Cas technology to enhance our gene editing platform. Pursuant to the Regeneron collaboration agreement, we granted Regeneron exclusive rights to select up to 10 targets, subject to certain restrictions, while we retain the rights to solely develop our sentinel indications, other than ATTR, which is subject to a co-development and co-commercialization arrangement with Regeneron and have the right to choose additional liver targets for our own development during the collaboration term. Certain other of the development targets under the Regeneron agreement may also be subject to a co-development/co-commercialization arrangement with the other party at the other party's option.

Either Novartis or Regeneron may change its strategic focus or pursue alternative technologies in a manner that results in reduced, delayed or no revenue to us. Each of Novartis and Regeneron has a variety of marketed products and product candidates under collaboration with other companies, including some of our competitors, and Novartis's or Regeneron's own corporate objectives may not be consistent with our best interests. If either of our collaboration partners fails to develop, obtain regulatory approval for or ultimately commercialize any product candidate from the development programs governed by the respective collaboration agreement in the applicable territories, or if either of our collaboration partners terminates our collaboration with it, our business, financial condition, results of operations and prospects would be harmed. In addition, any dispute or litigation proceedings we may have with either Novartis or Regeneron in the future could delay development programs, create uncertainty as to ownership of or access to intellectual property rights, distract management from other business activities and generate substantial expense.

Our existing and future collaborations will be important to our business. If we are unable to maintain any of these collaborations, or if these collaborations are not successful, our business could be adversely affected.

We have limited capabilities for product development and do not yet have any capability for sales, marketing or distribution. Accordingly, we have entered, and plan to enter, into collaborations with other companies, including our therapeutic-focused collaboration agreements with Novartis and Regeneron, that we believe can provide such capabilities. These collaborations provide us with important technologies and funding for our programs and technology, and we expect to receive additional technologies and funding under these and

other collaborations in the future. Our existing therapeutic collaborations, and any future collaborations we enter into, may pose a number of risks, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development and commercialization of any product candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs or license arrangements based on clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors, such as a strategic transaction that may divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products and product candidates if the collaborators believe that the competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- product candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own product candidates or products, which may cause collaborators to cease to devote resources to the commercialization of our product candidates;
- collaborators may fail to comply with applicable regulatory requirements regarding the development, manufacture, distribution or marketing of a product candidate or product;
- collaborators with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product or products;
- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or terminations of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- if a collaborator of ours is involved in a business combination, the collaborator might deemphasize or terminate the development or commercialization of any product candidate licensed to it by us; and
- collaborations may be terminated by the collaborator, and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates.

If our therapeutic collaborations do not result in the successful discovery, development and commercialization of products or if one of our collaborators terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under the collaboration. If we do not receive the funding we expect under these agreements, our development of our technology and product candidates could be delayed and we may need additional resources to develop product candidates and our technology. All of the risks relating to product development, regulatory approval and commercialization described in this prospectus also apply to the activities of our therapeutic collaborators.

Additionally, if one of our collaborators terminates its agreement with us, we may find it more difficult to attract new collaborators and our perception in the business and financial communities could be adversely affected.

For some of our programs, we may in the future determine to collaborate with pharmaceutical and biotechnology companies for development and potential commercialization of therapeutic products. We face significant competition in seeking appropriate collaborators. Our ability to 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. If we are unable to reach agreements with suitable collaborators on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a 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 fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates, bring them to market or continue to develop our technology and our business may be materially and adversely affected.

Gene editing products are novel and may be complex and difficult to manufacture. We could experience manufacturing problems that result in delays in the development or commercialization of our product candidates or otherwise harm our business.

The manufacturing process used to produce CRISPR/Cas9-based product candidates may be complex, as they are novel and have not been validated for clinical and commercial production. Several factors could cause production interruptions, including equipment malfunctions, facility contamination, raw material shortages or contamination, natural disasters, disruption in utility services, human error or disruptions in the operations of our suppliers.

Our product candidates will require processing steps that are more complex than those required for most small molecule drugs. Moreover, unlike small molecules, the physical and chemical properties of a biologic such as ours generally cannot be fully characterized. As a result, assays of the finished product may not be sufficient to ensure that the product will perform in the intended manner. Accordingly, we will employ multiple steps to control the manufacturing process to assure that the process works and the product candidate is made strictly and consistently in compliance with the process. Problems with the manufacturing process, even minor deviations from the normal process, could result in product defects or manufacturing failures that result in lot failures, product recalls, product liability claims or insufficient inventory. We may encounter problems achieving adequate quantities and quality of clinical grade materials that meet FDA, EMA or other applicable standards or specifications with consistent and acceptable production yields and costs.

In addition, the FDA, the EMA and other foreign regulatory authorities may require us to submit samples of any lot of any approved product together with the protocols showing the results of applicable tests at any time. Under some circumstances, the FDA, the EMA or other foreign regulatory authorities may require that we not distribute a lot until the relevant agency authorizes its release. Slight deviations in the manufacturing process, including those affecting quality attributes and stability, may result in unacceptable changes in the product that could result in lot failures or product recalls. Lot failures or product recalls could cause us to delay product launches or clinical trials, which could be costly to us and otherwise harm our business, financial condition, results of operations and prospects. Problems in our manufacturing process could restrict our ability to meet market demand for our products.

We also may encounter problems hiring and retaining the experienced scientific, quality-control and manufacturing personnel needed to operate our manufacturing processes, which could result in delays in production or difficulties in maintaining compliance with applicable regulatory requirements.

Any problems in our manufacturing process or facilities could make us a less attractive collaborator for potential partners, including larger pharmaceutical companies and academic research institutions, which could limit our access to additional attractive development programs.

We expect to rely on third parties to manufacture our clinical product supplies, and we intend to rely on third parties for at least a portion of the manufacturing process of our product candidates, if approved. Our business could be harmed if the third parties fail to provide us with sufficient quantities of product inputs or fail to do so at acceptable quality levels or prices.

We do not currently own any facility that may be used as our clinical-scale manufacturing and processing facility and must eventually rely on outside vendors to manufacture supplies and process our product candidates. We have not yet caused any product candidates to be manufactured or processed on a commercial scale and may not be able to do so for any of our product candidates. We will make changes as we work to optimize the manufacturing process, and we cannot be sure that even minor changes in the process will result in therapies that are safe and effective.

The facilities used by our contract manufacturers to manufacture our product candidates must be approved by the FDA or other foreign regulatory agencies pursuant to inspections that will be conducted after we submit an application to the FDA or other foreign regulatory agencies. We do not control the manufacturing process of, and will be completely dependent on, our contract manufacturing partners for compliance with regulatory requirements, known as good manufacturing practice, or cGMP, requirements for manufacture of our product candidates. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or other regulatory authorities, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. In addition, we have no control over the ability of our contract 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.

We will rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines or comply with regulatory requirements, we may not be able to obtain regulatory approval of or commercialize any potential product candidates.

We will depend upon third parties, including independent investigators, to conduct our clinical trials under agreements with universities, medical institutions, CROs, strategic partners and others. We expect to have to negotiate budgets and contracts with CROs and trial sites, which may result in delays to our development timelines and increased costs.

We will rely heavily on third parties over the course of our clinical trials, and, as a result, will have limited control over the clinical investigators and limited visibility into their day-to-day activities, including with respect to their compliance with the approved clinical protocol. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on third parties does not relieve us of our regulatory responsibilities. We and these third parties are required to comply with good clinical practice, or GCP, requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for product candidates in clinical development. Regulatory authorities enforce these GCP requirements through periodic inspections of trial sponsors, clinical investigators and trial sites. If we or any of these third parties fail to comply with applicable GCP requirements, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to suspend or terminate these trials or perform additional preclinical studies or clinical trials before approving our marketing applications. We cannot be certain that, upon inspection, such regulatory authorities will determine that any of our clinical trials comply with the GCP requirements. In addition, our clinical trials must be conducted with biologic product produced under current good manufacturing practice, or cGMP, requirements and may require a large number of test patients.

Our failure or any failure by these third parties to comply with these regulations or to recruit a sufficient number of patients may require us to repeat clinical trials, which would delay the regulatory approval process. Moreover, our business may be implicated if any of these third parties violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

Any third parties conducting our future clinical trials will not be our employees and, except for remedies that may be available to us under our agreements with such third parties, we cannot control whether or not they devote sufficient time and resources to our ongoing preclinical, clinical, and nonclinical programs. These third parties may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other product development activities, which could affect their performance on our behalf. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to complete development of, obtain regulatory approval of or successfully commercialize our product candidates. As a result, our financial results and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenue could be delayed.

If any of our relationships with these third-party CROs or others terminate, we may not be able to enter into arrangements with alternative CROs or other third parties or to do so on commercially reasonable terms. Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO begins work. As a result, delays may occur, which can materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter similar 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.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, recent global financial crises caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, or additional global financial crises, could result in a variety of risks to our business, including weakened demand for our products, if approved, or our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

Our internal computer systems, or those of our collaborators or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product development programs.

Our internal computer systems and those of our current and any future collaborators and other contractors or consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such material system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a disruption of our development programs and our business operations, whether due to a loss of our trade secrets or other proprietary information or other similar disruptions. For example, the loss of clinical trial data from completed or future clinical 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 confidential or proprietary information, we could incur liability, our competitive position could be harmed and the further development and commercialization of our product candidates could be delayed.

Risks Related to Government Regulation

The regulatory approval process for our potential product candidates in the United States, EU and other jurisdictions is currently uncertain and will be lengthy, time-consuming and inherently unpredictable and we may experience significant delays in the clinical development and regulatory approval, if any, of our product candidates.

The research, testing, manufacturing, labeling, approval, selling, import, export, marketing and distribution of drug products, including biologics, are subject to extensive regulation by the FDA in the United States and other regulatory authorities. We are not permitted to market any biological product in the United States until we receive a biologics license from the FDA. We have not previously submitted a BLA to the FDA, or similar approval filings to comparable foreign authorities. A BLA must include extensive preclinical and clinical data and supporting information to establish that the product candidate is safe, pure and potent for each desired indication. The BLA must also include significant information regarding the chemistry, manufacturing and controls for the product, and the manufacturing facilities must complete a successful pre-license inspection. We expect the novel nature of our product candidates to create further challenges in obtaining regulatory approval. For example, the FDA has no experience with commercial development of CRISPR/Cas9-based therapies for human therapeutic use. The FDA may also require a panel of experts, referred to as an Advisory Committee, to deliberate on the adequacy of the safety and efficacy data to support approval. The opinion of the Advisory Committee, although not binding, may have a significant impact on our ability to obtain approval of any product candidates that we develop based on the completed clinical trials. Moreover, while we are not aware of any specific genetic or biomarker diagnostic tests for which regulatory approval would be necessary in order to advance any of our product candidates to clinical trials or potential commercialization, in the future regulatory agencies may require the development and approval of such tests. Accordingly, the regulatory approval pathway for such product candidates may be uncertain, complex, expensive and lengthy, and approval may not be obtained.

In addition, clinical trials can be delayed or terminated for a variety of reasons, including delays or failures related to:

- obtaining regulatory authorization to begin a trial, if applicable;
- the availability of financial resources to begin and complete the planned trials;
- reaching agreement on acceptable terms with prospective 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;
- obtaining approval at each clinical trial site by an independent IRB;
- recruiting suitable patients to participate in a trial in a timely manner;
- having patients complete a trial or return for post-treatment follow-up;
- clinical trial sites deviating from trial protocol, not complying with GCP requirements or dropping out of a trial;
- addressing any patient safety concerns that arise during the course of a trial;
- addressing any conflicts with new or existing laws or regulations;
- adding new clinical trial sites; or
- manufacturing qualified materials under cGMP regulations for use in clinical trials.

Patient enrollment is a significant factor in the timing of clinical trials and is affected by many factors. Further, a clinical trial may be suspended or terminated by us, the IRBs for the institutions in which such trials are being conducted, the DSMB for such trial or the FDA or other regulatory authorities 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, failure to demonstrate a benefit from using a product candidate, changes in governmental regulations or administrative

actions or lack of adequate funding to continue the clinical trial. If we experience termination of, or delays in the completion of, any clinical trial of product candidates, the commercial prospects for our product candidates will be harmed, and our ability to generate product revenue will be delayed. In addition, any delays in completing any clinical trials will increase our costs, slow down our product development and approval process and jeopardize our ability to commence product sales and generate revenue.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of product candidates in other jurisdictions.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, but a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and sale of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from those in the United States, including additional preclinical studies or clinical trials as clinical studies conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we are allowed to charge for our products is also subject to approval.

Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets or to receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our product candidates will be harmed.

Even if we receive regulatory approval of any product candidates or therapies, 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.

If any of our product candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies and submission of safety, efficacy and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities. In addition, we will be subject to continued compliance with cGMP and GCP requirements for any clinical trials that we conduct post-approval.

Manufacturers and manufacturers' facilities are required to comply with extensive FDA, and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP, and in certain cases, current Good Tissue Practices, or cGTP, regulations. As such, we and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any BLA, other marketing application, and previous responses to inspection observations. Accordingly, we and others with whom we work must continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

Any regulatory approvals that we receive for our product candidates may be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase IV clinical trials and surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a REMS program as a condition of approval of our product candidates, which could entail requirements for long-term patient follow-up, a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable

foreign regulatory authority approves our product candidates, we will have to comply with requirements including submissions of safety and other post-marketing information and reports and registration.

The FDA may impose consent decrees or withdraw 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 our product candidates, 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 result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical studies to assess new safety risks; or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of our products, withdrawal of the product from the market or voluntary or mandatory product recalls;
- fines, warning letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of license approvals;
- product seizure or detention or refusal to permit the import or export of our product candidates; and
- 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. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses and a company that is found to have improperly promoted off-label uses may be subject to significant liability. The policies of the FDA and of other regulatory authorities may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Healthcare cost control initiatives, including healthcare legislative reform measures, may have a material adverse effect on our business and results of operations.

Third-party payors, whether domestic or foreign, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the health care system that could impact our ability to sell our products profitably. In particular, there have been and continue to be a number of legislative initiatives at the United States federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the Affordable Care Act, was enacted, which substantially changes the way health care is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical and biotechnology industry. The Affordable Care Act, among other things, subjects biologic products to potential competition by lower-cost biosimilars, addresses 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, increases the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, extends the Medicaid Drug Rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, subjects manufacturers to new annual fees and taxes for certain branded prescription drugs and biologic agents and provides incentives to programs that increase the federal government's comparative effectiveness research. At this time, the full effect that the Affordable Care Act would have on our business remains unclear.

In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013, and will remain in effect through 2024 unless additional Congressional action is taken. In January 2013, the American Taxpayer Relief Act of 2012, was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals and other treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare, Medicaid and other healthcare funding, which could have a material adverse effect on our customers and, accordingly, our financial operations.

There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future, any of which could limit the amounts that foreign, federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

The continuing efforts of governments, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare and/or impose price controls could harm our business, financial conditions and prospects and may adversely affect:

- the demand for or utilization of our product candidates, if we obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to generate revenue and achieve or maintain profitability;
- the level of taxes, fees and rebates that we are required to pay; and
- the availability of capital.

Any denial in coverage or reduction in reimbursement from Medicare or other government programs may result in a similar denial or reduction in payments from private payors, which may adversely affect our future profitability.

Our employees, independent contractors, clinical investigators, CROs, consultants, commercial partners and vendors 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.

We are exposed to the risk of fraud, misconduct or other illegal activity by our employees, independent contractors, clinical investigators, CROs, consultants, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and/or negligent conduct that fails to: comply with federal and state laws and those of other applicable jurisdictions; provide true, complete and accurate information to the FDA and other similar foreign regulatory bodies; comply with manufacturing standards; comply with federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations in the United States and similar foreign fraudulent misconduct laws; or report financial information or data accurately or to disclose unauthorized activities to us. If we obtain FDA approval of any of our product candidates and begin commercializing those products in the United States, our potential exposure under such laws will increase significantly, and our costs associated with compliance with such laws are also likely to increase. These laws may impact, among other things, our current activities with clinical investigators and research patients, as well as proposed and future sales, marketing and education programs. In particular, the promotion, sales and marketing of healthcare products and services, as well as certain 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,

including off-label uses of our products, structuring and commission(s), certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of clinical trials or creating fraudulent data in our preclinical studies or clinical trials, 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 these 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, including the imposition of significant fines or other sanctions.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws, physician payment transparency laws and health information privacy and security laws. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties.

If we obtain FDA approval for any of our product candidates and begin commercializing those products in the United States, our operations may be directly, or indirectly through our customers and third-party payors, subject to various federal and state fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute, the federal False Claims Act, and physician sunshine laws and regulations. These laws may impact, among other things, our proposed sales, marketing, and education programs and our relationships with healthcare providers, physicians and other parties through which we market, sell and distribute our products for which we obtain marketing approval. In addition, we may be subject to patient privacy regulation by the federal government and the states in the United States as well as other jurisdictions. The laws that may affect our ability to operate include:

- the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual, 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 a federal healthcare program, such as the Medicare and Medicaid programs. 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;
- federal civil and criminal false claims laws and civil monetary penalties laws, including the civil False Claims Act, which impose criminal and civil penalties, through civil whistleblower or *qui tam* actions, on individuals or entities for, among other things, knowingly presenting, or causing to be presented to the U.S. federal government, claims for payment or approval that are false or fraudulent or knowingly making a false statement to avoid, decrease or conceal an obligation to pay money to the 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 of fraudulent claim for purposes of the False Claims Act;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, and their respective implementing regulations, which impose requirements on certain covered

healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization;

- the U.S. federal physician payment transparency requirements, sometimes referred to as the "Physician Payments Sunshine Act," created under the Affordable Care Act, and their implementing regulations, which require manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program to report annually to the Centers for Medicare and Medicaid Services, information related to payments or other transfers of value made to physicians, other healthcare providers, and teaching hospitals, as well as ownership and investment interests held by physicians, other healthcare providers, and their immediate family members; and
- the Federal Food, Drug and Cosmetic Act, which prohibits, among other things, the adulteration or misbranding of drugs and medical devices.

Additionally, we are subject to state and foreign equivalents of each of the healthcare laws described above, among others, some of which may be broader in scope and may apply regardless of the payor.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. In addition, recent health care reform legislation has strengthened these laws. For example, the Affordable Care Act, among other things, amends the intent requirement of the federal Anti-Kickback Statute and criminal healthcare fraud statutes. As a result of such amendment, a person or entity no longer needs to have actual knowledge of these statutes or specific intent to violate them in order to have committed a violation. Moreover, the Affordable Care Act provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. 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, including the imposition of civil, criminal and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in Medicare, Medicaid and other U.S. federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. In addition, the approval and commercialization of any of our product candidates outside the United States will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.

We will become subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations will involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also may produce hazardous waste products. We generally anticipate contracting with third parties for the disposal of these materials and wastes. We will not be able to eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from any use by us of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

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

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

Risks Related to Our Intellectual Property

Third-party claims of intellectual property infringement against us, our licensors or our collaborators may prevent or delay our product discovery and development efforts.

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation, as well as administrative proceedings for challenging patents, including interference, derivation, and reexamination proceedings before the United States Patent and Trademark Office, or USPTO, and oppositions and other comparable proceedings in foreign jurisdictions, involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, and we expect this to be true for the CRISPR/Cas9 space as well. Recently, due to changes in U.S. law referred to as patent reform, new procedures including *inter partes* review and post-grant review have been implemented. This reform adds uncertainty to the possibility of challenge to our developed or licensed patents in the future.

Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are developing our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may give rise to claims of infringement of the patent rights of others. We cannot guarantee that our technology, future product candidates or the use of such product candidates do not infringe third-party patents. It is also possible that we have failed to identify relevant third-party patents or applications.

Third parties may assert that we infringe their patents or that we are otherwise employing their proprietary technology without authorization, and may sue us. These third parties could include the co-owners of patent families that we license and from whom we have not yet obtained consent to practice the intellectual property in countries outside the United States, such as the co-owners of the intellectual property owned by The Regents of the University of California and the University of Vienna, which we refer to collectively as UC/Vienna, and Dr. Emmanuelle Charpentier from whom we do not yet have a license. There may be third-party patents of which we are currently unaware with claims to compositions, formulations, methods of manufacture or methods of use or treatment that cover product candidates we discover and develop. Because patent applications can take many years to issue, there may be currently pending patent applications that 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 or the manufacture, use or sale of our product candidates infringes upon these patents. If any such third-party patents were held by a court of competent jurisdiction to cover our technologies or product candidates, the holders of any such patents may be able to block our ability to commercialize the applicable product candidate unless we obtain a license under the applicable patents, or until such patents expire or are finally determined to be held invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, our ability to commercialize our product candidates may be impaired or delayed, which could in turn significantly harm our business.

Third parties asserting their patent rights against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidates. For example, the Broad Institute, Inc., or the Broad Institute, the Massachusetts Institute of Technology, or MIT, and the President and Fellows of Harvard College, or Harvard, own a patent portfolio, collectively, the Broad

Institute patent family, including issued patents in the U.S. and Europe, that purports to cover certain aspects of the CRISPR/Cas9 gene editing platform for use on gene sequences from eukaryotic cells, including human cells. An interference proceeding has been declared in the USPTO between certain U.S. patents and one application of the Broad Institute patent family and one UC/Vienna and Dr. Charpentier patent application we license through Caribou Biosciences Inc., or Caribou, which means that the USPTO will determine whether the contested inventions belong either to UC/Vienna and Dr. Charpentier or to the Broad Institute. While the UC/Vienna/Charpentier group has been named the senior party in the interference, meaning that they are presumed to be the earlier inventor, it is possible that the Broad Institute patent family will be upheld by the USPTO and could be asserted against us during development or commercialization of one of our CRISPR/Cas9-based products. Defense of these claims, regardless of their merit, would involve substantial litigation expense, would be a substantial diversion of management and other employee resources from our business and may impact our reputation. 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, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. In that event, we would be unable to further develop and commercialize our product candidates, which could harm our business significantly.

If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our products and technology. However, 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. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates, force us to redesign our infringing products or force us to cease some or all of our business operations, any of which could materially harm our business and, with respect to the matter involving the Broad Institute patent family mentioned above, could prevent us from further developing and commercializing our proposed future product candidates thereby causing us significant harm. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

Under our license agreement with Caribou, we sublicense a patent family from The Regents of the University of California and the University of Vienna that is co-owned by Dr. Emmanuel Charpentier. One United States patent application in this patent family is subject to interference proceedings with certain patents and a patent application of the Broad Institute patent family. The outcome of these proceedings may affect our ability to utilize the intellectual property sublicensed under our license agreement with Caribou.

The Broad Institute patent family includes issued patents in the U.S. and Europe that purport to cover certain aspects of the CRISPR/Cas9 gene editing platform for use on gene sequences from eukaryotic cells, including human cells. On January 11, 2016, the Patent Trial and Appeal Board of the USPTO, or PTAB, declared an interference proceeding between certain patents and a patent application of the Broad Institute patent family and one UC/Vienna and Dr. Charpentier patent application to determine, based on priority of invention, whether the contested inventions belong either to UC/Vienna and Dr. Charpentier or to the Broad Institute. The UC/Vienna/Charpentier group has been named the senior party in the interference and is therefore presumed to be the earlier inventor. As the junior party in the proceeding, the Broad Institute bears the burden of proof to support its claim that it was the first to invent the claimed patents. If the Broad Institute is able to ultimately prevail in the proceedings, its patents could be asserted against us during development or commercialization of one of our CRISPR/Cas9-based products. Defense of these claims, regardless of their merit, would involve substantial litigation expense, would be a substantial diversion of management and other employee resources from our business and may impact our reputation. 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, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. In that event, we could be unable to further develop and commercialize our product candidates, which could harm our business significantly.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We may in the future be subject to claims that former employees, collaborators or other third parties have an interest in our patents or other intellectual property as an inventor or co-inventor or other claims challenging the inventorship of our patents or ownership of our intellectual property (including patents and intellectual property that we in-license). For example, the University of California, Berkeley patent family that is covered by our license agreement with Caribou is co-owned by UC/Vienna and Dr. Charpentier, and our sublicense rights are derived from the first two co-owners and not from Dr. Charpentier. Therefore, our rights to these patents are not exclusive and third parties, including competitors, may have access to intellectual property that is important to our business. In addition, co-owners from whom we do not yet have a license may raise claims surrounding inventorship or ownership of patents that ultimately issue from this patent family, potentially resulting in issued patents to which we would not have rights under our existing license. Further, in jurisdictions outside the United States, a license may not be enforceable unless all the owners of the intellectual property agree or consent to the license. Accordingly, Dr. Charpentier could seek monetary or equitable relief requiring us to pay her compensation for, or refrain from, exploiting these patents due to the co-ownership of the UC/Vienna intellectual property we license through Caribou. In addition, we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on 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.

We depend on intellectual property licensed from third parties and termination of any of these licenses could result in the loss of significant rights, which would harm our business.

We are dependent on patents, know-how and proprietary technology, both our own and licensed from others, including Caribou and Novartis. Any termination of these licenses, or a finding that such intellectual property lacks legal effect, could result in the loss of significant rights and could harm our ability to commercialize any product candidates. See the section entitled “Business—Intellectual Property” for additional information regarding our license agreements.

Disputes may also arise between us and our licensors, our licensors and their licensors, or us and third parties that co-own intellectual property with our licensors or their licensors, regarding intellectual property subject to a license agreement, including those relating to:

- the scope of rights, if any, granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the license agreement;
- whether our licensor or its licensor had the right to grant the license agreement;
- whether third parties are entitled to compensation or equitable relief, such as an injunction, for our use of the intellectual property without their authorization;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- whether we are complying with our obligations with respect to the use of the licensed technology in relation to our development and commercialization of product candidates;
- our involvement in the prosecution of the licensed patents and our licensors’ overall patent enforcement strategy;
- the allocation of ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and by us and our partners; and

- the amounts of royalties, milestones or other payments due under the license agreement.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, or are insufficient to provide us the necessary rights to use the intellectual property, we may be unable to successfully develop and commercialize the affected product candidates. If we or any such licensors fail to adequately protect this intellectual property, our ability to commercialize our products could suffer.

We depend, in part, on our licensors to file, prosecute, maintain, defend and enforce patents and patent applications that are material to our business.

Patents relating to our product candidates are controlled by certain of our licensors. Each of our licensors or their licensors generally has rights to file, prosecute, maintain and defend the patents we have licensed from such licensor. If these licensors or any future licensees and in some cases, co-owners from which we do not yet have licenses, having rights to file, prosecute, maintain, and defend our patent rights fail to conduct these activities for patents or patent applications covering any of our product candidates, our ability to develop and commercialize those product candidates may be adversely affected and we may not be able to prevent competitors from making, using or selling competing products. We cannot be certain that such activities by our licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents or other intellectual property rights. Pursuant to the terms of the license agreements with our licensors, the licensors may have the right to control enforcement of our licensed patents or defense of any claims asserting the invalidity of these patents and, even if we are permitted to pursue such enforcement or defense, we cannot ensure the cooperation of our licensors or, in some cases, other necessary parties, such as the co-owners of the intellectual property from which we have not yet obtained a license. We cannot be certain that our licensors, and in some cases, their co-owners, will allocate sufficient resources or prioritize their or our enforcement of such patents or defense of such claims to protect our interests in the licensed patents. Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent us from continuing to license intellectual property that we may need to operate our business. In addition, even when we have the right to control patent prosecution of licensed patents and patent applications, enforcement of licensed patents, or defense of claims asserting the invalidity of those patents, we may still be adversely affected or prejudiced by actions or inactions of our licensors and their counsel that took place prior to or after our assuming control.

We may not be successful in obtaining or maintaining necessary rights to product components and processes for our product development pipeline.

The growth of our business will likely depend in part on our ability to acquire or in-license additional proprietary rights. For example, our programs may involve additional product candidates or delivery systems that may require the use of additional proprietary rights held by third parties. Our ultimate product candidates may also require specific formulations to work effectively and efficiently. These formulations may be covered by intellectual property rights held by others. We may be unable to acquire or in-license any relevant third-party intellectual property rights that we identify as necessary or important to our business operations.

Additionally, we sometimes collaborate with academic institutions to accelerate our preclinical research or development under written agreements with these institutions. Typically, these institutions provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to other parties, potentially blocking our ability to pursue our program. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of such program and our business and financial condition could suffer.

The licensing and acquisition of third-party intellectual property rights is a competitive practice and companies that may be more established, or have greater resources than we do, may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to

commercialize our product candidates. More established companies may have a competitive advantage over us due to their larger size and cash resources or greater clinical development and commercialization capabilities. There can be no assurance that we will be able to successfully complete such negotiations and ultimately acquire the rights to the intellectual property surrounding the additional product candidates that we may seek to acquire.

We could be unsuccessful in obtaining or maintaining adequate patent protection for one or more of our products or product candidates.

We anticipate that we will file additional patent applications both in the United States and in other countries, as appropriate. However, we cannot predict:

- if and when any patents will issue;
- the degree and range of protection any issued patents will afford us against competitors, including whether third parties will find ways to invalidate or otherwise circumvent our patents;
- whether others will apply for or obtain patents claiming aspects similar to those covered by our patents and patent applications; or
- whether we will need to initiate litigation or administrative proceedings to defend our patent rights, which may be costly whether we win or lose.

Composition of matter patents for biological and pharmaceutical products are generally considered to be the strongest form of intellectual property protection for those types of products, as such patents provide protection without regard to any method of use. We cannot be certain, however, that any claims in our pending or future patent applications covering the composition of matter of our product candidates will be considered patentable by the USPTO or by patent offices in foreign countries, or that the claims in any of our ultimately issued patents will be considered valid and enforceable by courts in the United States or foreign countries. Method of use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to our product for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their product for our targeted indications, physicians may prescribe these products "off-label" for those uses that are covered by our method of use patents. Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute.

The strength of patents in the biotechnology and pharmaceutical field can be uncertain, and evaluating the scope of such patents involves complex legal and scientific analyses. The patent applications that we own or in-license may fail to result in issued patents with claims that cover any product candidates or uses thereof in the United States or in other foreign countries. Even if the patents do successfully issue, third parties may challenge the validity, enforceability, or scope thereof, which may result in such patents being narrowed, invalidated, or held unenforceable. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property or prevent others from designing their products to avoid being covered by our claims. If the breadth or strength of protection provided by the patent applications we hold is threatened, this could dissuade companies from collaborating with us to develop, and could threaten our ability to commercialize, product candidates. Further, if we encounter delays in our clinical trials, the period of time during which we could market product candidates under patent protection would be reduced. Because patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that we were the first to file any patent application related to our product candidates. Furthermore, for U.S. applications in which all claims are entitled to a priority date before March 16, 2013, an interference proceeding can be provoked by a third party or instituted by the USPTO to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. For U.S. applications containing a claim not entitled to priority before March 16, 2013, there is a greater level of uncertainty in the patent law in view of the passage of the America Invents Act, which brought into effect significant changes to the U.S. patent laws, including new procedures for challenging pending patent applications and issued patents.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad.

Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. 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. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost, in a timely manner, or in all jurisdictions. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from third parties. We may also require the cooperation of our licensors or other necessary parties, such as the co-owners of the intellectual property from which we have not yet obtained a license, in order to enforce the licensed patent rights, and such cooperation may not be provided. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

The laws of foreign countries may not protect our rights to the same extent as the laws of the United States and we may fail to seek or obtain patent protection in all major markets. For example, European patent law restricts the patentability of methods of treatment of the human body more than United States law does. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we will be unable to know with certainty whether we were the first to make any inventions claimed in any patents or patent applications, or that we were the first to file for patent protection of such inventions, nor can we know whether those from whom we license patents were the first to make the inventions claimed or were the first to file.

As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications or the patent applications that we obtain rights to through in-licensing arrangements may not result in patents being issued which protect our technology or future product candidates, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.

In addition to the protection afforded by patents, we seek to rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent. We also utilize processes for which patents are difficult to enforce. In addition, other elements of our product discovery and development processes involve proprietary know-how, information, or technology that is not covered by patents. Trade secrets, however, may be difficult to protect. We seek to protect our proprietary processes, in part, by entering into confidentiality agreements with our employees, consultants, outside scientific advisors, contractors, and collaborators. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, outside scientific advisors, contractors, and collaborators might intentionally or inadvertently disclose our trade secret information to competitors. In addition, competitors may otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, or misappropriation of our intellectual property by third parties, we may not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, operating results, and financial condition.

We have limited foreign intellectual property rights and may not be able to protect our intellectual property rights throughout the world.

We have limited intellectual property rights outside the United States. Filing, prosecuting, maintaining and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can have a different scope and strength than do those in the United States. In addition, the laws of some foreign countries, such as China, Brazil, Russia, India, and South Africa, 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 rights are not as strong as those in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or adequate to prevent them from competing. Further, in jurisdictions outside the United States, a license may not be enforceable unless all the owners of the intellectual property agree or consent to the license.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, such as China, Brazil, Russia, India, and South Africa, do not favor the enforcement of patents, trade secrets and other intellectual property, particularly those relating to biopharmaceutical products, which could make it difficult in those jurisdictions for us to stop the infringement or misappropriation of our patents or other intellectual property rights, or the marketing of competing products in violation of our proprietary rights. Proceedings to enforce our patent and other intellectual property rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Furthermore such proceedings could put our patents at risk of being invalidated, held unenforceable, or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke third parties to assert claims of infringement or misappropriation against us. We may not prevail in any lawsuits 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.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time-consuming, and unsuccessful.

Competitors may infringe our patents or the patents of our licensors. To cease such infringement or unauthorized use, we may be required to file patent infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding or a declaratory judgment action against us, a court may decide that one or more of our patents is not valid or is unenforceable, or may 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 proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly and could put our patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business.

Interference or derivation proceedings provoked by third parties or brought by the USPTO may be necessary to determine the priority of inventions with respect to, or the correct inventorship of, our patents or patent applications or those of our licensors. An unfavorable outcome could result in a loss of our current patent rights and could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Litigation, interference or derivation proceedings may result in a decision adverse to our interests and, even if we are successful, may result in substantial costs and distract our management and other employees.

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. In addition, there could 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 substantial adverse effect on the price of our common stock.

Issued patents covering our product candidates could be found invalid or unenforceable if challenged in court or before the USPTO or comparable foreign authority.

If we or one of our licensing partners initiate 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 or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Third parties may also raise similar claims before administrative bodies in the United States or other jurisdictions, even outside the context of litigation. Such mechanisms include re-examination, *inter partes* review, post-grant review and equivalent proceedings in foreign jurisdictions, such as opposition or derivation proceedings. Such proceedings could result in revocation or amendment to our patents in such a way that they no longer cover and protect our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity of our patents, for example, we cannot be certain that there is no invalidating prior art of which we, our patent counsel, and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity, unpatentability and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Such a loss of patent protection could have a material adverse impact on our business.

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

We have received confidential and proprietary information from third parties. In addition, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies as well as academic research institutions. We may be subject to claims that we or our employees, consultants, or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or our employees' former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and 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.

Periodic maintenance fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. Although an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance 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. Noncompliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees, and failure to properly legalize and submit formal documents. In any such event, our competitors might be able to enter the market, which would have a material adverse effect on our business.

We may be required to pay certain milestones and royalties under our license agreements with third-party licensors.

Under our current and future license agreements, we may be required to pay milestones and royalties based on our revenues from sales of our products utilizing the technologies licensed or sublicensed from Caribou and Novartis and these royalty payments could adversely affect the overall profitability for us of any products that we may seek to commercialize. In order to maintain our license rights under these license agreements, we will need to meet certain specified milestones, subject to certain cure provisions, in the development of our product candidates and in the raising of funding. In addition, these agreements contain diligence milestones and we may not be successful in meeting all of the milestones in the future on a timely basis or at all. We will need to outsource and rely on third parties for many aspects of the clinical development, sales and marketing of our products covered under our license agreements. Delay or failure by these third parties could adversely affect the continuation of our license agreements with their third-party licensors.

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

If our trademarks and trade names are not adequately protected, than we may not be able to build name recognition in our markets of interest and our business may be adversely affected. Our unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our unregistered trademarks or trade names. Over the long term, if we are unable to successfully register our trademarks and trade names and establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely impact our financial condition or results of operations.

Risks Related to Our Common Stock and this Offering

We expect that our stock price will fluctuate significantly and investors may not be able to resell their shares at or above the initial public offering price.

The trading price of our common stock following this offering may be highly volatile and could be subject to wide fluctuations in response to various factors, many of which are beyond our control. The stock market in general and the market for 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 those discussed in this "Risk Factors" section and elsewhere in this prospectus and the following:

- the results of our efforts to discover, develop, acquire or in-license product candidates;
- success of competitive products or technologies;
- results or delays in clinical trials or changes in the development status of our future product candidates;
- any delay in our regulatory filings for any product candidates and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings;
- regulatory or legal developments in the United States and other countries, especially changes in laws or regulations applicable to our products, including clinical trial requirements for approvals;

- our inability to obtain or delays in obtaining adequate product supply for any approved product or inability to do so at acceptable prices;
- any failure to commercialize any product candidates or if the size and growth of the markets we intend to target fail to meet expectations;
- additions or departures of key scientific or management personnel;
- unanticipated serious safety concerns related to CRISPR/Cas9-based therapy or the use of our and competitors' product candidates;
- introductions or announcements of new products offered by us or significant acquisitions, strategic partnerships, joint ventures or capital commitments by us, our collaborators or our competitors and the timing of such introductions or announcements;
- our ability to effectively manage our growth;
- our ability to successfully treat additional types of genetic-based diseases;
- changes in the structure of healthcare payment systems;
- actual or anticipated changes in estimates to or projections of financial results, development timelines or recommendations by securities analysts;
- publication of research reports about us or our industry, or gene editing in particular, or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- market conditions in the pharmaceutical and biotechnology sectors or the economy generally;
- our ability or inability to raise additional capital through the issuance of equity or debt or collaboration arrangements and the terms on which we raise it;
- trading volume of our common stock;
- disputes or other developments relating to proprietary rights, including patents, litigation or interference matters and our ability to obtain patent protection for our technologies;
- significant lawsuits, including patent or stockholder litigation; and
- general economic, industry and market conditions.

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

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 and an active trading market for our shares may never develop or be sustained following this offering. The initial price to the public for our common stock will be determined through negotiations with the underwriters, and the negotiated price may not be indicative of the market price of the common stock after the offering. The lack of an active market may impair investors' ability to sell their shares at the time they wish to sell them or at a price that they consider reasonable, may reduce the market value of their shares and may impair our ability to raise capital.

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

The trading market for our common stock 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, or one or more of the analysts who cover us issues an adverse opinion about our company, our stock price would likely decline. If one or more of these analysts ceases research coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

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

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

Upon completion of this offering and the concurrent private placements, 34,276,005 shares of our common stock will be outstanding (or 35,026,005 shares of common stock will be outstanding assuming exercise in full of the underwriters' option to purchase additional shares), based on our shares outstanding as of March 31, 2016. All shares of common stock expected to be sold in this offering will be freely tradable without restriction or further registration under the Securities Act of 1933, as amended, or Securities Act, unless held by our "affiliates," as that term is defined in Rule 144 under the Securities Act. The resale of the remaining 29,276,005 shares, or 85.4% of our outstanding shares after this offering, is currently prohibited or otherwise restricted as a result of securities law provisions, market standoff agreements entered into by our stockholders with us or lock-up agreements entered into by our stockholders with the underwriters. However, subject to applicable securities law restrictions and excluding shares of restricted stock that will remain unvested, these shares will be able to be sold in the public market beginning 180 days after the date of this prospectus. Shares of unvested restricted stock that were issued and outstanding as of the date of this prospectus will become available for sale immediately upon the vesting of such shares, as applicable, and the expiration of any applicable market stand-off or lock-up agreements. Shares issued upon the exercise of stock options pursuant to future awards that may be granted under our equity incentive plans or pursuant to future awards granted under those plans will become available for sale in the public market to the extent permitted by the provisions of applicable vesting schedules, any applicable market stand-off and lock-up agreements, and Rule 144 and Rule 701 under the Securities Act. For more information see the section entitled "Shares Eligible for Future Sale" appearing elsewhere in this prospectus.

Upon completion of this offering and the concurrent private placements, the holders of approximately 25,231,389 shares, or 73.6%, of our common stock, will have rights, subject to some conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register the offer and sale of all shares of common stock that we may issue under our equity compensation plans. Once we register the offer and sale of shares for the holders of registration rights and shares to be issued under our equity incentive plans, they can be freely sold in the public market upon issuance, subject to the lock-up agreements described in the section entitled "Underwriting" appearing elsewhere in this prospectus.

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

Our principal stockholders and management own a significant percentage of our stock and, if they choose to act together, will be able to control or exercise significant influence over matters subject to stockholder approval.

Our executive officers, directors and principal stockholders, together with their respective affiliates, beneficially owned approximately 83.2% of our capital stock as of March 31, 2016. Upon completion of this offering and the concurrent private placements, that group will beneficially own 72.6% of our capital stock, of which 8.4% will be beneficially owned by our executive officers (assuming no exercise of the underwriters' option to purchase additional shares and assuming that group does not participate in this offering). Accordingly, after this offering, our executive officers, directors and principal stockholders, if they choose to act together, will be able to determine the composition of the board of directors, retain the voting power to approve all matters requiring stockholder approval, including mergers and other business combinations, and continue to have significant influence over our operations. This concentration of ownership could have the effect of delaying or preventing a change in our control or otherwise discouraging a potential acquirer from attempting to obtain control of us that you may believe are in your best interests as one of our stockholders. This in turn could have a material adverse effect on our stock price and may prevent attempts by our stockholders to replace or remove the board of directors or management.

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 is 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 the initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and the sale of shares of common stock in the concurrent private placements, you will experience immediate dilution of $11.20 per share, representing the difference between our pro forma as adjusted net tangible book value per share, which gives effect to this offering and the concurrent private placements, and the initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately 37.8% of the aggregate price paid by all purchasers of our stock but will own only approximately 14.6% of our common stock outstanding after this offering.

Our management team has broad discretion to use the net proceeds from this offering and its investment of these proceeds may not yield a favorable return. They may invest the proceeds of this offering in ways with which investors disagree.

We expect to use the net proceeds from this offering to advance the research and development of our sentinel indications, to progress additional therapeutic candidates and for working capital and other general corporate purposes. We may also use a portion of the net proceeds to acquire, license and invest in complementary products, technologies or businesses; however, we currently have no agreements or commitments to complete any such transaction. However, within the scope of our plan, and in light of the various risks to our business that are set forth in this section, our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return, if at all. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our stock price to decline.

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

Provisions of our certificate of incorporation and bylaws to be effective upon consummation of this offering may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions

could adversely affect the price of our stock. Among other things, the certificate of incorporation and bylaws will:

- permit the board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide the board of directors into three classes;
- provide that a director may only be removed from the board of directors by the stockholders for cause;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders, and may not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and meet specific requirements as to the form and content of a stockholder's notice;
- prevent cumulative voting rights (therefore allowing the holders of a plurality of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- require that, to the fullest extent permitted by law, a stockholder reimburse us for all fees, costs and expenses incurred by us in connection with a proceeding initiated by such stockholder in which such stockholder does not obtain a judgment on the merits that substantially achieves the full remedy sought;
- provide that special meetings of our stockholders may be called only by the chairman of the board, our chief executive officer (or president, in the absence of a chief executive officer) or by the board of directors; and
- provide that stockholders will be permitted to amend the bylaws only upon receiving at least two-thirds of the total votes entitled to be cast by holders of all outstanding shares then entitled to vote generally in the election of directors, voting together as a single class.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder.

Our certificate of incorporation will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our certificate of incorporation will provide that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our certificate of incorporation or our bylaws, any action to interpret, apply, enforce, or determine the validity of our certificate of incorporation or bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in our 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 and financial condition.

We will incur increased costs as a result of operating as a public company.

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

We are an emerging growth company, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to "emerging growth companies." We could remain an "emerging growth company" for up to five years, or until the earliest of (1) the last day of the first fiscal year in which our annual gross revenue exceeds $1 billion, (2) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, which would occur if the market value of our common stock that is held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter or (3) the date on which we have issued more than $1 billion in non-convertible debt during the preceding three-year period. So long as we remain an "emerging growth company," we expect to avail ourselves of the exemption from the requirement that our independent registered public accounting firm attest to the effectiveness of our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404. When our independent registered public accounting firm is required to undertake an assessment of our internal control over financial reporting, the cost of our compliance with Section 404 will correspondingly increase. Moreover, if we are not able to comply with the requirements of Section 404 applicable to us in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," contains express or implied forward-looking statements that are based on our management's belief and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties and other 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 these forward-looking statements. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- the initiation, timing, progress and results of our research and development programs and future preclinical and clinical studies;
- our ability to apply a risk-mitigated strategy to efficiently discover and develop product candidates, including by applying learnings from one program to other programs;
- our ability to create a pipeline of product candidates;
- our ability to advance any product candidates into, and successfully complete, clinical studies;
- our ability to advance our therapeutic delivery capabilities;
- the issuance of regulatory guidance regarding preclinical and clinical studies for gene editing products;
- the timing or likelihood of regulatory filings and approvals;
- the commercialization of our product candidates, if approved;
- the pricing and reimbursement of our product candidates, if approved;
- the implementation of our business model, strategic plans for our business, product candidates and technology;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and technology;
- estimates of our expenses, future revenues, capital requirements and our needs for additional financing;
- the potential benefits of strategic collaboration agreements and our ability to enter into strategic arrangements;
- our ability to maintain and establish collaborations or obtain additional grant funding;
- our financial performance;
- developments relating to our competitors and our industry; and
- other risks and uncertainties, including those listed under the caption "Risk Factors."

In some cases, forward-looking statements can be identified by terminology such as "may," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue" or the negative of these terms or other comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect results. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under the section entitled "Risk Factors" and elsewhere in this prospectus. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance. You should read this prospectus and the documents that we

reference in this prospectus and have filed with the Securities and Exchange Commission as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements.

The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosure contained in this prospectus, and we believe these industry publications and third-party research, surveys and studies are reliable.

USE OF PROCEEDS

We estimate that our net proceeds from the sale of shares of our common stock in this offering will be approximately $76.5 million, or $88.3 million if the underwriters exercise in full their option to purchase additional shares, assuming an initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by $4.7 million, assuming 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. A 1.0 million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) our net proceeds from this offering by $15.8 million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We currently intend to use the net proceeds from this offering as follows:

- $25.0 million to advance the research and development of our product candidates for our sentinel indications through to the submission of at least one IND;
- $15.0 million to progress additional *in vivo* and *ex vivo* pipeline product candidates;
- $10.0 million to further develop our delivery technologies and CRISPR/Cas9 gene editing platform; and
- the remainder 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. For example, we may use a portion of the net proceeds for the acquisition of businesses or technologies to continue to build our therapeutic delivery, research and development capabilities and our intellectual property position, although we currently have no agreements, commitments or understandings with respect to any such transaction. 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 completion of this offering and the concurrent private placements or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our research and development, the status of and results from non-clinical studies 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 or strategic opportunities that become available to us, and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering and the concurrent private placements.

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

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We intend to retain all available funds and any future earnings to fund the growth and development of our business. We do not intend to pay cash dividends to our stockholders in the foreseeable future.

REORGANIZATION

On August 20, 2015, we completed a series of transactions pursuant to which Intellia Therapeutics, LLC, our former sole stockholder and holding company parent, merged with and into us, and we continued to exist as the surviving corporation. Throughout this prospectus, we refer to these transactions and the related transactions enumerated below collectively as the "Reorganization." To consummate the Reorganization, we filed a certificate of merger with the Secretary of State of the State of Delaware. In connection with the Reorganization:

- holders of Intellia Therapeutics, LLC's outstanding Class A-2 preferred units received one share of our Series A-2 preferred stock for each Class A-2 preferred unit held immediately prior to the Reorganization, with an aggregate of 3,999,999 shares of our Series A-2 preferred stock issued in the Reorganization;
- holders of Intellia Therapeutics, LLC's outstanding Class A-1 preferred units received one share of our Series A-1 preferred stock for each Class A-1 preferred unit held immediately prior to the Reorganization, with an aggregate of 8,571,429 shares of our Series A-1 preferred stock issued in the Reorganization;
- holders of Intellia Therapeutics, LLC's outstanding Junior preferred units received one share of our Junior preferred stock for each Junior Preferred Unit held immediately prior to the Reorganization, with an aggregate of 8,110,599 shares of our Junior preferred stock issued in the Reorganization;
- holders of Intellia Therapeutics, LLC's outstanding common units received one share of our founder stock for each common unit held immediately prior to the Reorganization, with an aggregate of 2,298,000 shares of our founder stock issued in the Reorganization; and
- holders of Intellia Therapeutics, LLC's outstanding incentive units received shares of our restricted common stock in an amount equal in value to the value of such incentive units as determined by the applicable provisions of the Intellia Therapeutics, LLC operating agreement in effect immediately prior to the Reorganization, with an aggregate of 2,558,755 shares of our restricted common stock issued in the Reorganization.

Our Series A-2 preferred stock, Series A-1 preferred stock, Junior preferred stock and founder stock are designated as preferred stock under our amended and restated certificate of incorporation. All outstanding shares of our preferred stock convert to shares of common stock on a one-for-0.6465903 basis.

In connection with the Reorganization, by operation of law, we acquired all assets of Intellia Therapeutics, LLC and assumed all of its liabilities and obligations. The purpose of the Reorganization was to reorganize our corporate structure so that our company would continue as a corporation and so that our existing investors would own our capital stock rather than equity interests in a limited liability company. For the convenience of the reader, except as context otherwise requires, all information included in this prospectus is presented giving effect to the Reorganization.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of December 31, 2015:

- on an actual basis;
- on a pro forma basis to give effect to (i) the conversion of all outstanding shares of our preferred stock into an aggregate of 23,481,957 shares of common stock immediately prior to the completion of this offering and (ii) the filing and effectiveness of our amended and restated certificate of incorporation upon the closing of this offering; and
- on a pro forma as adjusted basis to give further effect to (i) our sale in this offering of 5,000,000 shares of common stock at an assumed initial public offering price of $17.00 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 estimated offering expenses payable by us, and (ii) our sale of approximately $55.0 million of shares of common stock in the concurrent private placements to Regeneron and Novartis (or 3,235,293 shares at the assumed initial public offering price of $17.00 per share).

The pro forma as adjusted information below is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

The following table should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Description of Capital Stock," and the consolidated financial statements and related notes appearing elsewhere in this prospectus.

	As of December 31, 2015		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
	(in thousands, except share and per share data)		
Cash and cash equivalents	$ 75,816	$ 75,816	$ 207,266
Convertible preferred stock (Series B, Series A-2, Series A-1, Junior and Founder), $0.0001 par value; 36,500,000 shares authorized, 36,316,628 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	$ 88,557	$ —	$ —
Stockholders' (deficit) equity:			
Preferred stock, $0.0001 par value; no shares authorized, issued or outstanding, actual; 5,000,000 shares authorized, no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	—
Common stock, $0.0001 par value; 50,000,000 shares authorized, 2,558,755 shares issued and outstanding, actual; 120,000,000 shares authorized, 26,040,712 shares issued and outstanding, pro forma; 120,000,000 shares authorized, 34,276,005 shares issued and outstanding, pro forma as adjusted	—	3	3
Additional paid-in capital	735	89,289	220,739
Accumulated deficit	(21,936)	(21,936)	(21,936)
Total stockholders' (deficit) equity	(21,201)	67,356	198,806
Total capitalization	$ 67,356	$ 67,356	$ 198,806

(1) Pro forma as adjusted amounts do not include a $75.0 million upfront payment received from Regeneron in April 2016 under our license and collaboration agreement.

A $1.00 increase (decrease) in the assumed initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover page of this prospectus and in the concurrent private placements, would increase (decrease) the pro forma as adjusted amount of cash, additional paid-in capital, total stockholders' equity and total capitalization by approximately $4.7 million, assuming 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 in this offering would increase (decrease) the pro forma as adjusted amount of cash, additional paid-in capital, total stockholders' equity and total capitalization by approximately $15.8 million, assuming the assumed initial public offering price of $17.00 per share, the midpoint of the price range 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. The pro forma as adjusted information is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

The actual, pro forma and pro forma as adjusted information set forth in the table excludes:

- 496,539 shares of common stock reserved for future issuance as of March 31, 2016 under our 2015 Plan, which will be amended and restated as our 2015 Restated Plan, effective upon the effectiveness of the registration statement of which this prospectus is a part;
- 2,617,932 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2016, at a weighted average exercise price of $6.69 per share; and
- an additional 2,001,579 shares of common stock that will be made available for future issuance under our equity compensation plans upon the closing of this offering.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Our historical net tangible book value as of December 31, 2015 was $67.4 million, or $26.32 per share of our common stock. Our historical net tangible book value is the amount of our total tangible assets less our total liabilities. Historical net tangible book value per share represents historical net tangible book value divided by the 2,558,755 shares of our common stock outstanding as of December 31, 2015.

Our pro forma net tangible book value as of December 31, 2015 was $67.4 million, or $2.59 per share of our common stock. Pro forma net tangible book value per share represents historical net tangible book value divided by the total number of shares of common stock outstanding as of December 31, 2015, after giving effect to the conversion of all shares of our preferred stock then outstanding into 23,481,957 shares of common stock upon the closing of this offering.

After giving further effect to the sale of 5,000,000 shares of common stock that we are offering at the initial public offering price of $17.00 per share, 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 and the sale of 3,235,293 shares of common stock in the concurrent private placements to Regeneron and Novartis at an assumed initial public offering price of $17.00 per share, our pro forma as adjusted net tangible book value as of December 31, 2015 would have been approximately $198.8 million, or approximately $5.80 per share. This amount represents an immediate increase in pro forma net tangible book value of $3.21 per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of approximately $11.20 per share to investors participating in this offering.

Dilution per share to investors participating in this offering is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by investors participating in this offering. The following table illustrates this dilution (without giving effect to any exercise by the underwriters of their over-allotment option):

Assumed initial public offering price per share		$17.00
Historical net tangible book value per share as of December 31, 2015	$ 26.32	
Pro forma decrease in historical net tangible book value per share attributable to pro forma adjustments described in preceding paragraphs	(23.73)	
Pro forma net tangible book value per share as of December 31, 2015	2.59	
Increase in pro forma net tangible book value per share attributable to investors participating in this offering	2.04	
Pro forma as adjusted net tangible book value per share after this offering		4.63
Pro forma as adjusted net tangible book value per share after this offering and the concurrent private placements		$ 5.80
Dilution per share to investors participating in this offering		$11.20

If the underwriters exercise their option to purchase additional shares of common stock in this offering in full at the assumed initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover of this prospectus and assuming 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, the pro forma as adjusted net tangible book value would be $6.01 per share, and the dilution in pro forma net tangible book value per share to investors in this offering would be $10.99 per share.

A $1.00 increase (decrease) in the assumed initial public offering price of $17.00 per share, 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 by $0.17 per share and the dilution to investors participating in this offering by $0.83 per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, assuming the number of shares sold in our concurrent private placements are decreased (increased) accordingly, and after deducting estimated underwriting discounts and commissions and estimated expenses payable by us. Similarly, each increase of 1.0 million shares in the number of shares offered by us in this offering would increase the pro forma as adjusted net tangible book value by $0.28 per share and the dilution to investors participating in this offering by $0.28 per share, assuming the assumed initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated expenses payable by us.

The following table summarizes, on a pro forma as adjusted basis, as of December 31, 2015, the difference between the number of shares of common stock purchased from us, the total consideration paid to us and the average price per share paid by existing stockholders and by investors in this offering and the concurrent private placements at an assumed initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
	(in thousands except per share data)				
Existing stockholders(1)	26,040,712	76%	$ 85,017,155	38%	$ 3.26
Concurrent private placement investors	3,235,293	9	54,999,981	24	$ 17.00
Investors in this offering	5,000,000	15	85,000,000	38	$ 17.00
Total	34,276,005	100.0%	$225,017,136	100.0%	

(1) Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $30.0 million of shares of our common stock in this offering at the initial public offering price. The presentation in this table regarding ownership by existing stockholders does not give effect to any purchases in this offering by such stockholders.

The above discussion and tables are based on shares of common stock issued and outstanding as of December 31, 2015 and (i) includes 23,481,957 additional shares of our common stock issuable upon the conversion of all outstanding shares of our preferred stock into shares of common stock upon the closing of this offering and (ii) excludes:

- 496,539 shares of common stock reserved for future issuance as of March 31, 2016 under our 2015 Plan, which will be amended and restated as our 2015 Restated Plan, effective upon the effectiveness of the registration statement of which this prospectus is a part;
- 2,617,932 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2016, at a weighted average exercise price of $6.69 per share; and
- an additional 2,001,579 shares of common stock that will be made available for future issuance under our equity compensation plans upon the closing of this offering.

A $1.00 increase (decrease) in the assumed initial public offering price of $17.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by investors in this offering by approximately $4.7 million, assuming 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 in this offering would increase (decrease) the total consideration paid by investors in this offering by approximately $15.8 million, assuming the assumed initial

public offering price of $17.00 per share, the midpoint of the price range 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.

To the extent that outstanding options are exercised or shares are issued under our 2015 Restated Plan, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities may result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

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

We have derived the selected consolidated statement of operations data for the period from May 7, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015 and the selected consolidated balance sheet data as of December 31, 2014 and 2015 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 the future.

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
	(in thousands, except per unit and per share data)	
Consolidated Statements of Operations Data:		
Collaboration revenue	$ —	$ 6,044
Operating expenses:		
Research and development	1,105	11,170
In-process research and development	6,055	—
General and administrative	2,379	8,283
Total operating expenses	9,539	19,453
Loss before income taxes	(9,539)	(13,409)
Benefit from income taxes	—	1,012
Net loss	$ (9,539)	$ (12,397)
Net loss per common unit, basic and diluted	$ (11.55)	$ —
Net loss per share attributable to common stockholders, basic and diluted	$ —	$ (51.02)
Weighted average common units outstanding, basic and diluted	826	—
Weighted average shares outstanding, basic and diluted	—	243
Pro forma net loss per share, basic and diluted (unaudited)(1)		$ (0.70)
Pro forma weighted average shares outstanding, basic and diluted (unaudited)(1)		17,664

	As of December 31, 2014	As of December 31, 2015
	(in thousands)	
Consolidated Balance Sheet Data:		
Cash and cash equivalents	$ 9,845	$ 75,816
Working capital(2)	7,775	66,931
Total assets	10,694	82,139
Deferred revenue	—	10,312
Convertible preferred stock	—	88,557
Total stockholders' equity (deficit)	7,566	(21,201)

(1) Basic and diluted pro forma net loss per share give effect to the conversion of all shares of preferred stock issued in connection with the Reorganization into shares of common stock immediately prior to the completion of this offering, assuming such conversion occurred on the later of May 7, 2014 (inception) or the issuance date of the corresponding unit that converted to preferred stock in the Reorganization.

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

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

The following discussion and analysis of our financial condition and results of operations should be read together with our consolidated financial statements and related notes and other financial information appearing 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.

As more fully described in the section entitled "Reorganization" appearing elsewhere in this prospectus, on August 20, 2015, we completed transactions pursuant to which Intellia Therapeutics, LLC merged with and into Intellia Therapeutics, Inc., with Intellia Therapeutics, Inc. continuing as the surviving corporation. In connection with the Reorganization, all of the outstanding common and preferred unitholders of Intellia Therapeutics, LLC became holders of preferred stock of Intellia Therapeutics, Inc., and holders of incentive units in Intellia Therapeutics, LLC received restricted common stock in Intellia Therapeutics, Inc.

Overview

We are a leading gene editing company focused on the development of proprietary, potentially curative therapeutics utilizing a recently developed biological tool known as CRISPR/Cas9. We believe that the CRISPR/Cas9 technology has the potential to transform medicine by permanently editing disease-associated genes in the human body with a single treatment course. We intend to leverage our leading scientific expertise, clinical development experience and intellectual property position to unlock broad therapeutic applications of CRISPR/Cas9 gene editing and develop a potential new class of therapeutic products.

We believe our strong product focus, therapeutic discovery and development strength, delivery expertise and intellectual property portfolio make us well-positioned to translate the potential of the CRISPR/Cas9 system into clinically meaningful gene editing-based therapeutics. To maximize our opportunity to rapidly develop clinically successful products, we have applied a risk-mitigated approach to selecting our initial indications, which we refer to as our sentinel indications. Our approach is defined by four primary axes: (i) the type of edit—knockout, repair or insertion; (ii) the delivery modality for *in vivo* and *ex vivo* applications; (iii) the presence of established therapeutic endpoints; and (iv) the potential for the CRISPR/Cas9 system to provide therapeutic benefits when compared to existing therapeutic modalities. Our sentinel indications include *in vivo* programs focused on diseases of the liver that have significant unmet medical needs – transthyretin amyloidosis, which we are co-developing with Regeneron Pharmaceuticals, Inc., or Regeneron, alpha-1 antitrypsin deficiency, hepatitis B virus and inborn errors of metabolism – as well as *ex vivo* applications of the technology in chimeric antigen receptor T cell, or CAR T cell, and hematopoietic stem cell, or HSC, product candidates which are selectively partnered with our collaborator, Novartis Institutes for BioMedical Research Inc., or Novartis.

We commenced active operations in mid-2014, and our operations to date have been limited to organizing and staffing our company, business planning, raising capital, developing our technology, identifying potential product candidates, undertaking preclinical studies and evaluating a clinical path for our pipeline programs. To date, we have financed our operations primarily through private placements of our equity securities and funding received from our collaboration and license agreement with Novartis. All of our revenue to date has been collaboration revenue. Since our inception and through December 31, 2015, we have raised an aggregate of approximately $104.0 million to fund our operations, of which approximately $19.0 million was through our collaboration with Novartis and approximately $85.0 million was from the sale of our equity, principally preferred securities. In addition, we received $75.0 million in the form of an upfront payment under our collaboration with Regeneron in April 2016.

Since inception, we have incurred operating losses. Our net loss was $9.5 million for the period from May 7, 2014 (inception) to December 31, 2014, primarily as a result of the cost of obtaining in-licensed CRISPR/Cas9 intellectual property, and $12.4 million for the year ended December 31, 2015. As of December 31, 2015, we had

an accumulated deficit of $21.9 million. We expect to continue to incur significant expenses and operating losses over the next several years. Our net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially as we: advance the programs for our sentinel indications toward clinical development; continue the research and development of our other potential product candidates and delivery modalities; seek to discover and develop additional product candidates; seek regulatory approvals for any product candidates that successfully complete clinical trials; ultimately establish a sales, marketing and distribution infrastructure and scale up external and/or internal manufacturing capabilities to commercialize any products for which we may obtain regulatory approval; maintain, expand and protect our intellectual property portfolio; hire additional clinical, regulatory and scientific personnel; and add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

Collaborations

In December 2014, we entered into a strategic collaboration and license agreement with Novartis focused on the development of new *ex vivo* CRISPR/Cas9-based therapies using CAR T cells and HSCs. Under the terms of our agreement, we received a $10.0 million upfront technology access payment in January 2015. In addition, we are entitled to receive $20.0 million in additional technology access fees and up to $20.0 million in research payments, in the aggregate, over the five-year collaboration term. For each product under the collaboration, we may be eligible to receive (i) up to $30.3 million in development milestones, including for the filing of an investigational new drug application and for the dosing of the first patient in each of Phase IIa, Phase IIb and Phase III clinical trials, (ii) up to $50.0 million in regulatory milestones for the product's first indication, including regulatory approvals in the U.S. and the European Union, or EU, (iii) up to $50.0 million in regulatory milestones for the product's second indication, if any, including U.S. and EU regulatory approvals, (iv) royalties on net sales in the mid-single digits, and (v) net sales milestone payments of up to $100.0 million. We retain exclusive rights to research a limited number of HSC targets for our proprietary pipeline. In addition, prior to our entry into our collaboration with Novartis, we entered into an exclusivity agreement with Novartis pursuant to which we agreed to issue preferred securities to Novartis. We received $9.0 million from the sale of such securities to Novartis. We also received approximately $4.0 million from the sale of Series B preferred stock to Novartis in our Series B preferred stock financing. See the section entitled "Certain Relationships and Related Party Transactions" appearing elsewhere in this prospectus for more information.

In April 2016, we entered into a license and collaboration agreement with Regeneron. The agreement includes a product component to research, develop and commercialize CRISPR/Cas-based therapeutic products primarily focused on gene editing in the liver as well as a technology collaboration component, pursuant to which we and Regeneron will engage in research and development activities aimed at discovering and developing novel technologies and improvements to CRISPR/Cas technology to enhance our gene editing platform. Under the terms of our agreement we received a nonrefundable upfront payment of $75.0 million. In addition, we are eligible to earn, on a per-licensed target basis, up to $25.0 million, $110.0 million and $185.0 million in development, regulatory and sales-based milestone payments, respectively. We are also eligible to earn royalties ranging from the high single digits to the low teens, in each case, on a per-product basis, which royalties are potentially subject to various reductions and offsets and are further subject to our existing low single-digit royalty obligations under our Caribou license agreement.

Financial Overview

Collaboration Revenue

Our revenue consists of collaboration revenue, including amounts recognized related to upfront technology access payments for licenses, technology access fees, research funding and milestone payments earned under our collaboration and license agreement with Novartis. In December 2014, we entered into a five-year strategic collaboration and license agreement with Novartis focused on the development of *ex vivo* CRISPR/Cas9-based therapies using CAR T cells and HSCs. Under the terms of the agreement, we received a $10.0 million upfront technology access payment and $9.0 million from the sale of preferred securities to Novartis, which were

determined to have a fair value of $11.6 million. In addition, we are entitled to receive an additional $20.0 million in technology access fees and up to $20.0 million in research payments.

Going forward, our revenue will also include collaboration revenue, including amounts recognized related to upfront payments, earned under our collaboration and license agreement with Regeneron. In April 2016, we entered into a strategic collaboration and license agreement with Regeneron focused on the development of *in vivo* CRISPR/Cas-based therapeutic products primarily directed to gene editing in the liver as well as technology advances to the CRISPR/Cas platform. Under the terms of the agreement, we received a nonrefundable $75.0 million upfront payment.

In addition, we are also eligible to receive additional milestone payments and royalties under both collaboration agreements as further described in the section entitled "Business – Collaborations" appearing elsewhere in this prospectus.

Research and Development

Research and development expenses consist of expenses incurred in performing research and development activities, including the cost to obtain licenses to intellectual property, compensation and benefits, including equity-based compensation, for full-time research and development employees, facility-related expenses, overhead expenses, lab supplies and contract research services, including research services provided to us by Caribou Biosciences, Inc., or Caribou, pursuant to a services agreement, or the Caribou services agreement, we entered into with Caribou in July 2014. See the section entitled "Certain Relationships and Related Party Transactions – License Agreement and Services Agreement with Caribou Biosciences, Inc." appearing elsewhere in this prospectus for more information. In the early phases of development, our research and development costs are often devoted to product platform and proof-of-concept studies that are not necessarily allocable to a specific target; therefore, we have not yet begun tracking our expenses on a program-by-program basis.

In-Process Research and Development

In-process research and development expense represents the cost of acquiring in-process research and development rights to our fundamental CRISPR/Cas9 intellectual property from Caribou.

General and Administrative

General and administrative expenses consist primarily of salaries and benefits, including equity-based compensation, for our executive, finance, intellectual property, business development and support functions. Other general and administrative expenses include allocated facility-related costs not otherwise included in research and development expenses, travel expenses and professional fees for auditing, tax and legal services, including intellectual property-related legal services, and other consulting fees and expenses.

Results of Operations for the Period from May 7, 2014 (Inception) to December 31, 2014 and the Year Ended December 31, 2015

Collaboration Revenue

In December 2014, we entered into a five-year strategic collaboration and license agreement with Novartis focused on the development of *ex vivo* CRISPR/Cas9-based therapies using CAR T cells and HSCs. Under the terms of the agreement, we received a $10.0 million upfront technology access payment and $9.0 million from the sale of preferred securities to Novartis, which were determined to have a fair value of $11.6 million. In addition, we are entitled to receive an additional $20.0 million in technology access fees and up to $20.0 million in research payments. We are also eligible to receive additional milestone payments, option fees and royalties as further described in the section entitled "Business – Collaborations."

We determined the fixed portion of consideration under the arrangement to be the $30.0 million of total technology access fees, for which there are no contingent terms. Of the $30.0 million in fixed consideration, $2.6 million was allocated to the preferred securities issued to Novartis, representing the difference between the

price paid for these securities and their fair values at date of issuance. We are recognizing the net consideration of $27.4 million as collaboration revenue over the five-year performance period of the arrangement. We recognized collaboration revenue of $6.0 million in the year ended December 31, 2015, representing the recognition of these amounts from deferred revenue. We did not recognize any collaboration revenue in 2014.

Research and Development

We recorded $11.2 million in research and development expenses during the year ended December 31, 2015, compared to $1.1 million in the period from May 7, 2014 (inception) to December 31, 2014. Research and development expenses in the period from May 7, 2014 (inception) to December 31, 2014 consisted primarily of third-party research services under the Caribou services agreement and personnel-related costs for our internal research and development staff and related expenses, including salaries, benefits and equity-based compensation. The $11.2 million in research and development expenses during the year ended December 31, 2015 was primarily comprised of salaries and related costs for our research and development team, which grew from three employees as of December 31, 2014 to 38 employees as of December 31, 2015, third-party research service fees under the Caribou service agreement and laboratory supplies and materials for internal use. We expect research and development expenses to increase as we continue to grow our research and development team and continue to advance our research plans.

In-Process Research and Development

Our $6.1 million in in-process research and development expenses for the period from May 7, 2014 (inception) to December 31, 2014 represented the cost of acquiring in-process research and development rights to our foundational CRISPR/Cas9 intellectual property from Caribou. We did not record any in-process research and development expense in the year ended December 31, 2015.

General and Administrative

We recorded $8.3 million in general and administrative expenses during the year ended December 31, 2015, compared to $2.4 million in the period from May 7, 2014 (inception) to December 31, 2014. Our $2.4 million in general and administrative expenses for the period from May 7, 2014 (inception) to December 31, 2014 primarily related to our internal general and administrative salaries and related expenses, legal, patent and consulting fees associated with our initial start-up and costs incurred to pay 30.0% of Caribou's patent prosecution filing and maintenance costs for our licensed intellectual property pursuant to the license agreement with Caribou. The $8.3 million in general and administrative expenses during the year ended December 31, 2015 was primarily comprised of salaries and benefits costs as well as audit, consulting and professional fees, including legal fees and intellectual property costs, such as amounts incurred resulting from our obligation to pay 30.0% of Caribou's patent prosecution filing and maintenance costs for our licensed intellectual property. We expect general and administrative expenses to continue to increase as we grow our organization, including, upon any successful completion of this offering, as we incur additional costs associated with being a publicly traded company, including increased legal, accounting and corporate governance costs.

Benefit from Income Taxes

We did not recognize any benefit from income taxes during the period from May 7, 2014 (inception) to December 31, 2014. During the year ended December 31, 2015, we allocated $2.6 million from the $30.0 million total fixed amount of consideration under the collaboration agreement with Novartis to the carrying value of the Class A-1 and A-2 preferred units to record those units based on their fair value at date of issuance. As a result of this allocation, during the year ended December 31, 2015, we recorded an income tax provision of $1.0 million within members' equity as well as a corresponding income tax benefit of $1.0 million within continuing operations.

Liquidity and Capital Resources

Since our inception through December 31, 2015, we have raised an aggregate of $104.0 million to fund our operations, of which $19.0 million was through our collaboration with Novartis and $85.0 million was from the sale of equity securities. As of December 31, 2015, we had $75.8 million in cash and cash equivalents.

We are entitled to receive technology access fees and research payments under our collaboration with Novartis and received a $75.0 million upfront payment under our collaboration with Regeneron. We are also eligible to earn a significant amount of milestone payments and royalties, in each case, on a per-product basis under our collaborations with Novartis and Regeneron. Our ability to earn these milestones and the timing of achieving these milestones is dependent upon the outcome of our research and development activities and is uncertain at this time. Our rights to payments under our collaboration agreement are our only committed external source of funds.

Funding Requirements

Our primary uses of capital are, and we expect will continue to be, research and development services, compensation and related expenses, laboratory and related supplies, legal and other regulatory expenses, patent prosecution filing and maintenance costs for our licensed intellectual property and general overhead costs. We expect our expenses to increase compared to prior periods in connection with our ongoing activities, particularly as we continue research and development and preclinical activities and as we begin to occupy our new office and laboratory facility. In addition, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company.

Because our research programs are still in preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of any future product candidates or whether, or when, we may achieve profitability. Until such time, as we can generate substantial product revenues, if ever, we expect to finance our cash needs through a combination of equity or debt financings and collaboration arrangements. We are entitled to technology access fees and research payments under our collaboration with Novartis. Additionally, we are eligible to earn milestone payments and royalties, in each case, on a per-product basis under our collaborations with Novartis and Regeneron. Except for these sources of funding, upon completion of this offering, we will not have any committed external source of liquidity. To the extent that we raise additional capital through the future sale of equity or debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing stockholders. If we raise additional funds through collaboration arrangements in the future, we may have 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.

Outlook

Based on our research and development plans and our timing expectations related to the progress of our programs, we expect that the net proceeds from this offering, the upfront payment and concurrent private placement with Regeneron and the concurrent private placement with Novartis, together with our existing cash and cash equivalents as of December 31, 2015 as well as technology access and research funding that we expect to receive from Novartis, will enable us to fund our operating expenses and capital expenditures for at least the next 36 months, without giving effect to any potential milestone payments or extension fees we may receive under our collaboration agreements with Novartis and Regeneron. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we expect.

Our ability to generate revenue and achieve profitability depends significantly on our success in many areas, including: developing our delivery technologies and our CRISPR/Cas9 technology platform; selecting appropriate product candidates to develop; completing research and preclinical and clinical development of selected product candidates; obtaining regulatory approvals and marketing authorizations for product candidates for which we complete clinical trials; developing a sustainable and scalable manufacturing process for product candidates; launching and commercializing product candidates for which we obtain regulatory approvals and marketing authorizations, either directly or with a collaborator or distributor; obtaining market acceptance of our

product candidates; addressing any competing technological and market developments; negotiating favorable terms in any collaboration, licensing, or other arrangements into which we may enter; maintaining good relationships with our collaborators and licensors; maintaining, protecting, and expanding our portfolio of intellectual property rights, including patents, trade secrets, and know-how; and attracting, hiring, and retaining qualified personnel.

Cash Flows

The following table summarizes our cash flows for the period from May 7, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015:

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
	(in thousands)	
Net cash used in operating activities	$ (2,322)	$ (1,763)
Net cash used in investing activities	(575)	(2,554)
Net cash provided by financing activities	12,742	70,288

Net Cash Used in Operating Activities

Net cash used in operating activities of $2.3 million during the period from May 7, 2014 (inception) to December 31, 2014 consisted primarily of compensation and related expenses as well as legal and consulting costs incurred with the initial phases of establishing our company's operations and early research activities performed by Caribou. Net cash used in operating activities of $1.8 million in the year ended December 31, 2015 primarily reflected compensation, lab and professional service expenses as well as amounts paid by us under the Caribou services agreement during the period, partially offset by the receipt of a $10.0 million upfront technology access payment and $5.0 million annual technology access fee under the Novartis collaboration agreement.

Net Cash Used in Investing Activities

Net cash used in investing activities during the periods from May 7, 2014 (inception) to December 31, 2014 related primarily to the July 2014 acquisition of in-process research and development rights to our foundational CRISPR/Cas9 intellectual property from Caribou, as well as the purchase of property and equipment in connection with our move to our office space in Cambridge, Massachusetts. Purchases of property and equipment increased during the year ended December 31, 2015 as we completed the build-out of this office and laboratory space. We expect purchases of property and equipment to increase in 2016 as we begin the build-out of our new office and laboratory facility.

Net Cash Provided by Financing Activities

Net cash provided by financing activities related to the sale of preferred securities in all periods presented. In June 2014, we sold shares of common stock to Atlas Venture Fund IX, LP, or Atlas Venture Fund IX, for net proceeds of $0.1 million. In the remainder of 2014, we issued common and preferred securities to Atlas Venture Fund IX and Novartis for aggregate net proceeds of $12.6 million. In the year ended December 31, 2015, we completed the sale of preferred securities to Atlas Venture Fund IX, for net proceeds of $2.0 million, received $2.6 million in consideration from Novartis related to their purchase of preferred securities from us and completed the sale of preferred securities to new and existing investors for aggregate net proceeds of $67.4 million.

Contractual Obligations and Contingent Liabilities

The following summarizes our contractual obligations as of December 31, 2015:

	Payments Due by Period				
	Total	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years
	(in thousands)				
Fixed payments to Caribou	$1,500	$1,500	$ —	$ —	$ —
Property leases	3,755	945	1,868	942	—
Total contractual obligations	$5,255	$2,445	$1,868	$942	$ —

- *Fixed payments to Caribou.* Represents obligations by us to make fixed payments under the Caribou services agreement.
- *Property leases.* Represents future minimum lease payments under non-cancelable operating leases in effect as of December 31, 2015. The minimum lease payments do not include common area maintenance charges or real estate taxes.

The contractual obligations table does not include any potential future pass-through milestone payments of up to $26.4 million or royalty payments we may be required to make under the Caribou license agreement, through which we have received rights to CRISPR/Cas9 intellectual property for specified human therapeutic applications, due to the uncertainty of the occurrence of the events requiring payment under that agreement. The table also excludes (i) the property lease we entered into subsequent to December 31, 2015 and (ii) our obligation to pay 30.0% of Caribou's patent prosecution filing and maintenance costs for licensed intellectual property as such costs cannot be reliably estimated until incurred.

In January 2016, we entered into a ten-year agreement to lease office and laboratory space in Cambridge, Massachusetts under an operating lease agreement, with an option to terminate the lease at the end of the sixth year and an option to extend the term of the lease for an additional three years. Our contractual commitments under the committed first six years of this lease total $28.3 million. Payments under the contract are expected to begin in late 2016 when we are projected to gain access to the space.

Under the Caribou license agreement, we sublicense a patent family that is currently subject to interference proceedings declared by the Patent Trial and Appeal Board of the United States Patent and Trademark Office. If our sublicensed patent family does not prevail in these proceedings, claims could be asserted against us during development or commercialization of a product that relies on this technology. Defense of any such claims would involve substantial litigation expense, and any successful claim of infringement against us could require us to pay substantial damages.

Critical Accounting Policies and Use of Estimates

Our management's discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the balance sheets and the reported amounts of collaboration revenue and expenses during the reporting periods. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances at the time such estimates are made. Actual results and outcomes may differ materially from our estimates, judgments and assumptions. We periodically review our estimates in light of changes in circumstances, facts and experience. The effects of material revisions in estimates are reflected in the consolidated financial statements prospectively from the date of the change in estimate.

We define our critical accounting policies as those accounting principles generally accepted in the United States of America that require us to make subjective estimates and judgments about matters that are

uncertain and are likely to have a material impact on our financial condition and results of operations as well as the specific manner in which we apply those principles. We believe the critical accounting policies used in the preparation of our consolidated financial statements which require significant estimates and judgments are as follows:

Revenue Recognition

We recognize revenue for each unit of accounting when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the seller's price to the buyer is fixed or determinable; and collectability is reasonably assured.

The terms of our collaboration and license agreements contain multiple deliverables, which include licenses to CRISPR/Cas9-based therapeutic products directed to specific targets, referred to as exclusive licenses, as well as research and development activities to be performed by us on behalf of the collaboration partner related to the licensed targets. Payments that we may receive under these agreements include non-refundable technology access fees, payments for research activities, payments based upon the achievement of specified milestones and royalties on any resulting net product sales.

Multiple-Element Arrangements

Our collaboration and license agreements represent multiple-element arrangements. We evaluate our collaborative agreements for proper classification in our statements of operations based on the nature of the underlying activity. We generally reflect as revenue amounts due under our collaborative agreements related to reimbursement of development activities as we are generally the principal under the arrangement.

We evaluate multiple-element arrangements to determine (i) the deliverables included in the arrangement and (ii) whether the individual deliverables represent separate units of accounting or whether they must be accounted for as a combined unit of accounting. When deliverables are separable, consideration received is allocated to the separate units of accounting based on the relative selling price method and the appropriate revenue recognition principles are applied to each unit. When we determine that an arrangement should be accounted for as a single unit of accounting, we must determine the period over which the performance obligations will be performed and revenue will be recognized. This evaluation requires us to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. Deliverables are considered separate units of accounting provided that (i) the delivered item has value to the customer on a standalone basis and (ii) if the arrangement includes a general right of return with respect to the delivered item, delivery or performance of the undelivered item is considered probable and substantially in our control. In assessing whether an item has standalone value, we consider factors such as the research, development, manufacturing and commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. In addition, we consider whether the collaboration partner can use any other deliverable for its intended purpose without the receipt of the remaining deliverable, whether the value of the deliverable is dependent on the undelivered item, and whether there are other vendors that can provide the undelivered items.

The consideration received under an arrangement that is fixed or determinable is then allocated among the separate units of accounting based on the relative selling prices of the separate units of accounting. We determine the selling price of a unit of accounting within each arrangement using vendor-specific objective evidence of selling price, if available; third-party evidence of selling price if vendor-specific objective evidence is not available; or best estimate of selling price, if neither vendor-specific objective evidence nor third-party evidence is available. Determining the best estimate of selling price for a unit of accounting requires significant judgment. In developing the best estimate of selling price for a unit of accounting, we consider applicable market conditions and relevant entity-specific factors, including factors that were contemplated in negotiating the agreement with the customer and estimated costs. We validate the best estimate of selling price for units of accounting by evaluating whether changes in the key assumptions used to determine the best estimate of selling price will have a significant effect on the allocation of arrangement consideration between multiple units of accounting.

We recognize arrangement consideration allocated to each unit of accounting when all of the revenue recognition criteria are satisfied for that particular unit of accounting. In the event that a deliverable does not represent a separate unit of accounting, we recognize revenue from the combined unit of accounting over the contractual or estimated performance period for the undelivered items, which is typically the term of our research and development obligations. If there is no discernible pattern of performance or objectively measurable performance measures do not exist, then we recognize revenue under the arrangement on a straight-line basis over the period we are expected to complete our performance obligations. Conversely, if the pattern of performance over which the service is provided to the customer can be determined and objectively measurable performance measures exist, then we recognize revenue under the arrangement using the proportional performance method. Revenue recognized is limited to the lesser of the cumulative amount of payments received or the cumulative amount of revenue earned, as determined using the straight-line method or proportional performance method, as applicable, as of the period ending date.

Significant management judgment is required in determining the level of effort required under an arrangement and the period over which we are expected to complete our performance obligations under an arrangement. Steering committee services that are not inconsequential or perfunctory and that are determined to be performance obligations are combined with other research services or performance obligations required under an arrangement, if any, in determining the level of effort required in an arrangement and the period over which we expect to complete our aggregate performance obligations.

Milestone Revenue

Our collaboration and license agreements include contingent milestone payments related to specific development, regulatory and sales-based milestones. Development and regulatory milestones are typically payable when a product candidate initiates or advances in clinical trial phases, upon submission for marketing approval with regulatory authorities, and upon receipt of actual marketing approvals for a therapeutic or for additional indications. Sales-based milestones are typically payable when annual sales reach specified levels.

We evaluate whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. This evaluation includes an assessment of whether: (i) the consideration is commensurate with either our performance to achieve the milestone or the enhancement of the value of the delivered item as a result of a specific outcome resulting from our performance to achieve the milestone, (ii) the consideration relates solely to past performance, and (iii) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. We evaluate factors such as the scientific, clinical, regulatory, commercial and other risks that must be overcome to achieve the particular milestone and the level of effort and investment required to achieve the particular milestone in making this assessment. There is considerable judgment involved in determining whether a milestone satisfies all of the criteria required to conclude that a milestone is substantive. We will recognize revenue in its entirety upon successful accomplishment of any substantive milestones, assuming all other revenue recognition criteria are met. Milestones that are not considered substantive are recognized as earned if there are no remaining performance obligations or over the remaining period of performance, with a cumulative catch-up being recognized for the elapsed portion of the period of performance, assuming all other revenue recognition criteria are met.

Non-refundable research, development and regulatory milestones that are expected to be achieved as a result of our efforts during the period of our performance obligations under the collaboration and license agreements are generally considered to be substantive and are recognized as revenue upon the achievement of the milestone, assuming all other revenue recognition criteria are met. If not considered to be substantive, revenue from achievement of milestones is initially deferred and recognized over the remaining term of our performance obligations. Milestones that are not considered substantive because we do not contribute effort to their achievement are recognized as revenue upon achievement, assuming all other revenue recognition criteria are met, as there are no undelivered elements remaining and no continuing performance obligations on our part.

Amounts received prior to satisfying the revenue recognition criteria listed above are recorded as deferred revenue in the accompanying balance sheets. Although we follow detailed guidelines in measuring revenue, certain judgments affect the application of our revenue policy. For example, in connection with our existing

collaboration agreement, we have recorded on the balance sheet short-term and long-term deferred revenue based on our best estimate of when such revenue will be recognized. However, this estimate is based on our current research plan and, if our research plan should change in the future, we may recognize a different amount of deferred revenue over the following 12-month period.

The estimate of deferred revenue also reflects management's estimate of the periods of our involvement in the collaboration. Our primary performance obligations under this collaboration consist of research and development services. In certain instances, the timing of satisfying these obligations can be difficult to estimate. Accordingly, our estimates may change in the future. Such changes to estimates would result in a change in prospective revenue recognition amounts. If these estimates and judgments change over the course of our collaborative agreement, it may affect the timing and amount of revenue that we will recognize and record in future periods.

Equity-Based Compensation

We measure employee equity-based compensation based on the grant date fair value of the equity awards and recognize equity-based compensation expense, net of estimated forfeitures, on a straight-line basis over the requisite service period of the awards, which is generally the vesting period of the respective award. Compensation expense is recognized for only the portion of awards that are expected to vest. In developing a forfeiture rate estimate, we have considered our historical experience to estimate pre-vesting forfeitures for service-based awards. We estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates.

We measure equity awards granted to consultants and non-employees based on the fair value of the award on the date of grant. Compensation expense is recognized over the period during which services are rendered by such consultants and non-employees until completed. At the end of each financial reporting period prior to completion of the service, the fair value of these awards is remeasured using the then-current fair value of the common or incentive securities.

We classify equity-based compensation expense in our consolidated statement of operations in the same manner in which the award recipient's salary and related costs are classified or in which the award recipient's service payments are classified.

Determination of the Fair Value of Equity Securities

As there has been no public market for our common or incentive units and common stock to date, the estimated fair value of our common and incentive units and common stock has been determined by our board of directors as of the date of each award grant, with input from management, considering our most recently available third-party valuations of common and incentive units and common stock and our board of directors' assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. Our common and incentive security valuations were prepared using either an option-pricing method, or OPM, or a probability-weighted expected return method, or PWERM, which used a combination of market approaches and an income approach to estimate our enterprise value. The OPM treats common securities and preferred securities 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 and incentive units and common stock have value only if the funds available for distribution to members exceeded the value of the preferred security liquidation preference at the time of the liquidity event, such as a strategic sale or a merger. The PWERM is a scenario-based methodology that estimates the fair value of common and incentive units and common stock based upon an analysis of future values for the company, assuming various outcomes. The common and incentive units and common stock values are 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 common, incentive and preferred securities. The future

value of the common and incentive units and 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 and incentive units and common stock. These third-party valuations were performed at various dates, which resulted in valuations of our common and incentive units of $0.63 and $0.22 per share, respectively, as of July 31, 2014 and $1.97 and $1.34 per share, respectively, as of December 31, 2014 and valuations of our common stock of $5.81, $6.41 and $6.83 per share as of July 20, 2015, November 30, 2015 and January 29, 2016, respectively. In addition to considering the results of these third-party valuations, our board of directors considered various objective and subjective factors to determine the fair value of our common and incentive units and common stock as of each grant date, which may be a date later than the most recent third-party valuation date, including:

- the prices of our preferred securities sold to or exchanged between outside investors in arm's length transactions, and the rights, preferences and privileges of our preferred securities as compared to those of our common and incentive units and common stock, including the liquidation preferences of our preferred securities;
- the progress of our research and development efforts, including the status of preclinical studies and planned clinical trials for our product candidates;
- the lack of liquidity of our equity as a private company;
- our stage of development and business strategy and the material risks related to our business and industry;
- the achievement of enterprise milestones, including entering into collaboration and license agreements;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;
- any external market conditions affecting the biotechnology industry, and trends within the biotechnology industry;
- the likelihood of achieving a liquidity event for the holders of our common and incentive units and common stock, such as an initial public offering, or IPO, or a sale of our company, given prevailing market conditions; and
- the analysis of IPOs and the market performance of similar companies in the biopharmaceutical industry.

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

Following the closing of this offering, the fair value of our common stock will be determined based on the quoted market price of our common stock.

Equity-Based Security Awards Granted

The following table sets forth by grant date and type of award the number of securities granted since inception, which were granted for no returned consideration:

Grant Date	Type of Award Granted	Number of Securities Underlying Grants	Grant Date Fair Value Per Unit or Share
July 31, 2014	Common units	1,351,763	$ 0.63
July 31, 2014	Incentive units	1,351,761	$ 0.22
October 1, 2014	Incentive units	159,031	$ 1.34
October 30, 2014	Incentive units	15,902	$ 1.34
November 12, 2014	Incentive units	15,902	$ 1.34
November 13, 2014	Incentive units	15,902	$ 1.34
April 15, 2015	Incentive units	546,760	$ 1.34
June 23, 2015	Incentive units	130,405	$ 1.34
June 29, 2015	Incentive units	83,822	$ 1.34
July 6, 2015	Incentive units	37,058	$ 1.34
July 13, 2015	Incentive units	79,411	$ 1.34
September 22, 2015	Stock options	270,558	$ 5.81
September 28, 2015	Stock options	1,588	$ 5.81
October 5, 2015	Stock options	8,823	$ 5.81
December 22, 2015	Stock options	175,405	$ 6.41
February 2, 2016	Stock options	80,828	$ 6.83
February 3, 2016	Stock options	2,080,730	$ 6.83

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. We are irrevocably choosing to "opt out" of this provision and, as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2014-09, *Revenue from Contracts with Customers* (*Topic 606*), which supersedes existing revenue recognition guidance. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The standard defines a five-step process to achieve this principle and will require companies to use more judgment and make more estimates than under the current guidance. We expect that these judgments and estimates will include identifying performance obligations in the customer contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. ASU 2014-09 also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. In July 2015, the FASB voted to delay the effective date of this standard such that ASU 2014-09 will be effective for us for annual periods beginning after December 15, 2017 and for interim periods within those fiscal years. Early adoption of the standard is permitted for annual periods beginning after December 15, 2016. We are evaluating the impact that the adoption of ASU 2014-09 will have on our consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties About an Entity's Ability to Continue as a Going Concern*. ASU 2014-15 amends Accounting Standards Codification, or ASC, 205-40, *Presentation of Financial Statements—Going Concern*, by providing guidance on determining when and how reporting entities must disclose going-concern uncertainties in their financial statements, including requiring management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date of issuance of the entity's financial statements and providing certain disclosures if there is

substantial doubt about the entity's ability to continue as a going concern. ASU 2014-15 will be effective for us for annual periods ending after December 15, 2016 and interim periods within annual periods beginning after December 15, 2016. We are evaluating the potential impact of this ASU on our consolidated financial statements but believe its adoption will have no impact on our financial position, results of operations or cash flows.

In February 2015, the FASB issued ASU No. 2015-02, *Consolidation (Topic 810)—Amendments to the Consolidation Analysis*. ASU 2015-02 modifies the existing consolidation guidance in ASC 810, *Consolidation*, by significantly changing the consolidation analysis reporting organizations are required to complete in determining whether to consolidate certain legal entities. ASU 2015-02 requires either a retrospective or modified retrospective approach to adoption and will be effective for us for annual periods beginning after December 15, 2015 and for interim periods within those fiscal years. We are evaluating the impact of the adoption of ASU 2015-02 on our consolidated financial statements but believe its adoption will have no material impact on our financial position, results of operations or cash flows.

In April 2015, the FASB issued ASU No. 2015-05, *Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*. ASU 2015-05 amends ASC 350-40, *Internal-Use Software*, by providing customers with guidance on determining whether a cloud computing arrangement contains a software license that should be accounted for as internal-use software. ASU 2015-05 will be effective for us for annual periods beginning after December 15, 2015 and interim period within annual periods beginning after December 15, 2016. We are evaluating the impact that this ASU may have on our consolidated financial statements, if any.

In November 2015, the FASB issued ASU No. 2015-17, *Balance Sheet Classification of Deferred Taxes*. ASU 2015-17 amends ASC 740, *Income Taxes*, by requiring entities to present deferred tax assets and deferred tax liabilities as noncurrent in a classified balance sheet. ASU 2015-17 would be effective for annual periods beginning after December 15, 2016 and interim periods within those fiscal years. Early adoption is permitted. We elected to early adopt this guidance on a prospective basis beginning with our year ending as of December 31, 2015; however there was no material impact to our financial position as we carry a full valuation allowance.

In February 2016, the FASB issued ASU 2016-02, *Leases*. ASU 2016-02 amends ASC 840, *Leases*, by introducing a lessee model that requires balance sheet recognition of most leases. We are the lessee under certain leases that are accounted for as operating leases. The proposed changes would require that substantially all of our operating leases be recognized as assets and liabilities on our balance sheet. ASU 2016-02 will be effective for public companies for annual periods beginning after December 15, 2018 and interim periods within those fiscal years and for private companies for annual periods beginning after December 15, 2019 and interim periods within fiscal years beginning after December 15, 2020. We are evaluating the impact that the adoption of ASU 2016-02 will have on our consolidated financial statements.

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 the rules and regulations of the Securities and Exchange Commission.

Quantitative and Qualitative Disclosures about Market Risk

The market risk inherent in our financial instruments and in our financial position consists of the potential loss arising from adverse changes in interest rates. As of December 31, 2015, we had cash equivalents of $30.0 million consisting of interest-bearing money market 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 maturities of our cash equivalents and the low risk profile of our investments, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash equivalents.

We occasionally contract with vendors internationally. Transactions with these vendors are predominantly settled in U.S. dollars, and, therefore, we believe that we have only minimal exposure to foreign currency exchange risks. We do not hedge against foreign currency risks.

BUSINESS

Overview

We are a leading gene editing company focused on the development of proprietary, potentially curative therapeutics utilizing a recently developed biological tool known as the CRISPR/Cas9 system. We believe that the CRISPR/Cas9 technology has the potential to transform medicine by permanently editing disease-associated genes in the human body with a single treatment course. We intend to leverage our leading scientific expertise, clinical development experience and intellectual property position to unlock broad therapeutic applications of CRISPR/Cas9 gene editing and develop a potential new class of therapeutic products.

In 2012, one of our co-founders and current scientific advisors, Dr. Jennifer Doudna, and her colleagues published a paper in the journal *Science* describing the use of CRISPR/Cas9 as a gene editing tool. Gene editing is the precise and targeted modification of the genetic material of cells. Since the publication of Dr. Doudna's landmark paper, more than 2,600 research papers have been published on the CRISPR/Cas9 technology. The CRISPR/Cas9 system offers a revolutionary approach for therapeutic development due to its broad potential to precisely edit genes. This system can be used to make three general types of edits: knockouts, repairs and insertions. Each of these editing strategies takes advantage of naturally-occurring biological mechanisms to effect the desired genetic alteration. This approach has the potential to provide curative therapeutic options for patients with chronic diseases by addressing the underlying cause of the disease.

We plan to use the CRISPR/Cas9 system across two broad areas: *in vivo* applications, in which CRISPR/Cas9 therapeutic products are delivered directly to target cells within the body, and *ex vivo* applications, in which cells are removed from a patient's body, modified using CRISPR/Cas9 and then returned to the patient. Initially, our *in vivo* pipeline includes proprietary programs targeting transthyretin amyloidosis, or ATTR, which we are co-developing with Regeneron Pharmaceuticals, Inc., or Regeneron, alpha-1 antitrypsin deficiency, or AATD, hepatitis B virus, or HBV, and inborn errors of metabolism, or IEMs. Our initial *ex vivo* pipeline includes both proprietary and partnered programs focused on chimeric antigen receptor T cells, or CAR T cells, and hematopoietic stem cells, or HSCs, the stem cells from which all of the various types of blood cells originate, which we are developing in collaboration with Novartis Institutes for BioMedical Research, Inc., or Novartis.

To maximize our opportunity to rapidly develop clinically successful products, we have applied a risk- mitigated approach to selecting our initial indications, which we refer to as our sentinel indications. Specifically, we have selected indications with significant unmet medical needs based on four primary axes:

- the type of edit—knockout, repair or insertion;
- the delivery modality for *in vivo* and *ex vivo* applications;
- the presence of established therapeutic endpoints; and
- the potential for the CRISPR/Cas9 system to provide therapeutic benefits when compared to existing therapeutic modalities.

These selection criteria position us to build a risk-diversified pipeline, where we are not reliant on any single delivery technology or editing approach for success. In addition, we believe we can apply the learnings from these sentinel indications to inform our selection of subsequent indications and targets of interest. We believe this approach serves to increase our probabilities of success in our sentinel indications, generate insights that will accelerate the development of subsequent therapeutic products and broaden the opportunity for potential strategic alliances.

The following table illustrates our current discovery programs and opportunities:

Programs	Partnerships	Type of Edit	Delivery	Upcoming Milestones
In Vivo				
Transthyretin Amyloidosis (ATTR)	Co-developing with Regeneron	Knockout	LNP to Liver	Select 1 to 2 development candidates and advance to IND enabling studies in the next 12 to 24 months
Alpha-1 Antitrypsin Deficiency (AATD)	Proprietary	Knockout Repair	LNP to Liver	
Hepatitis B Virus (HBV)	Proprietary	Knockout	LNP to Liver	
Inborn Errors of Metabolism (IEMs)	Proprietary	Knockout Repair Insertion	LNP to Liver	
Ex Vivo				
Hematopoietic Stem Cells (HSCs)	Selectively partnered with Novartis; proprietary	Knockout Repair Insertion	Electroporation	First Novartis IND expected to be submitted in 2018
CAR T Cells	Partnered with Novartis	Knockout Insertion	Electroporation	Advance preclinical development

Delivery plays a key role in our *in vivo* therapeutic approach. We have shown in animal models that lipid nanoparticle, or LNP, delivery technology, which involves encapsulating therapeutic agents into microscopic lipid droplets, can systemically deliver CRISPR/Cas9 components to the liver, our initial organ of focus for *in vivo* applications. With our team's expertise with LNP delivery technology, we expect to be able to readily translate the LNPs that we are using for our preclinical development to clinical development in humans. In parallel, we are exploring additional delivery vehicles, including viral delivery vectors, which are viruses engineered to carry non-viral nucleic acids to patients' cells, that we believe may assist us in targeting other organs.

We have chosen four sentinel *in vivo* liver indications employing different editing strategies to explore the scope of gene edits with the CRISPR/Cas9 system:

- ATTR program, which utilizes a gene knockout strategy;
- AATD program, which utilizes either a gene knockout strategy or a gene repair strategy;
- HBV program, which utilizes a knockout strategy to target covalently closed circular DNA, or cccDNA; and
- IEM program, which has the potential to utilize all three editing approaches, including targeted DNA insertion.

In addition to giving us four potential product opportunities, each of these programs will provide us with learnings that we intend to translate to a broader set of disease indications requiring the same types of edits.

Our sentinel *ex vivo* programs in CAR T cell and HSC applications are being developed in partnership with Novartis, where we retain the right to develop and commercialize rights to certain HSC programs. In CAR T cell therapy, naturally-occurring immune cells, specifically T cells, are modified *ex vivo* by inserting a chimeric antigen receptor, or CAR, to selectively target cancer cells by activating an immune response against them. The CAR is an engineered fusion protein expressed on a cell's surface that has an antibody-based portion that can recognize certain markers on other cells, such as cancer cells, and a signaling portion inside the cell that can deliver the desired signals when the antibody portion binds its markers. We believe CRISPR/Cas9 can further enhance CAR T cells by, for example, generating a universal donor CAR T cell or modifying pathways to positively modulate the therapeutic potential of a CAR T cell therapy. In the HSC programs, we can apply CRISPR/Cas9 to correct defective proteins in HSCs of a given patient for the potential treatment of blood

disorders or primary immune deficiencies. In additional applications, normal HSCs may be engineered *ex vivo* using CRISPR/Cas9 to express a therapeutic protein, which is then administered to patients in need of that protein. Our sentinel *ex vivo* programs will help inform the broader applicability of CRISPR/Cas9 in an *ex vivo* setting, which we plan to explore in eXtellia, a division of our company focused on the application of CRISPR/Cas9 gene editing in the fields of immuno-oncology beyond CAR T cells and autoimmune and inflammatory diseases. We expect eXtellia to focus on other relevant types of immune cells, such as natural killer, or NK, cells and tumor infiltrating lymphocytes, or TILs, for immuno-oncology applications, T regulatory cells, or Tregs, for autoimmune disorders and other cell types, including induced pluripotent stem cells, mesenchymal stem cells and muscle satellite stem cells for tissue-targeted treatments, for which we retain proprietary rights. Our *ex vivo* delivery approach is a clinically proven delivery method called electroporation, an electrical charge-based technique for delivering molecules into cells that is currently being used in advanced clinical studies. In parallel, we are considering other delivery methods for *ex vivo* introduction of biological material to cells, which may provide advantages in delivery efficiency or cell viability.

We believe our approach to selecting our sentinel *in vivo* and *ex vivo* programs positions us to build a pipeline across a range of indications and to generate a wealth of data that opens the potential therapeutic applications of the CRISPR/Cas9 technology across a broad range of diseases. Our collaboration and intellectual property strategies focus on leveraging existing third-party expertise in therapeutic research, preclinical and clinical development, regulatory affairs, manufacturing and commercialization, while also enhancing our industry-leading access to evolving gene editing technology and delivery vehicles. Through our product research and development programs, we believe we can apply CRISPR/Cas9 technology to improve the lives of patients with significant unmet medical needs.

To enable further development of our technology and *in vivo* and *ex vivo* programs, we completed a private placement for gross proceeds of $70.0 million of our Series B preferred stock in August 2015 led by OrbiMed Advisors LLC. Additional investors in this financing included Fidelity Management & Research, Janus Capital Management, Foresite Capital, Sectoral Asset Management Inc., EcoR1 Capital LLC, our existing investors, Atlas Venture Fund IX and Novartis, as well as other leading mutual fund and healthcare investors.

Our Team

We have assembled a world-class team of executives, founders and advisors who are dedicated to the development of CRISPR/Cas9-based therapeutic products for patients with significant unmet medical needs. Our team's expertise spans CRISPR/Cas9 and broader gene editing technologies, *in vivo* and *ex vivo* therapeutic delivery technologies, preclinical and clinical development, product scale-up and manufacturing, cell and molecular biology, intellectual property, finance and regulatory affairs.

Our executive team comprises leaders with proven track records of successfully translating scientific visions into tangible therapies, solving complex issues in delivering novel therapeutics and progressing new and novel therapies through regulatory approval. Our management team includes the following key individuals:

- ***Nessan Bermingham, Ph.D., our Founder, President and Chief Executive Officer***, who brings 15 years of experience in biotechnology investing and operational oversight across a number of companies, including UBS AG and most recently as a venture partner at Atlas Venture;
- ***Thomas M. Barnes, Ph.D., our Chief Scientific Officer***, who brings over 20 years of experience in drug discovery, including at Eleven Biotherapeutics Inc., Ore Pharmaceuticals, Inc. (formerly known as Gene Logic, Inc.) and Millennium Pharmaceuticals, Inc.;
- ***John M. Leonard, M.D., our Chief Medical Officer***, who, during 21 years at AbbVie Inc. and Abbott Laboratories, oversaw the development and approval of 15 medicines, including Humira and Kaletra;
- ***David V. Morrissey, Ph.D., our Chief Technology Officer***, who was instrumental in the development of LNP technology at Novartis and brings over 17 years of experience in drug development, including at Novartis, Sirna Therapeutics Inc., and Bristol-Myers Squibb;

- ***José E. Rivera, J.D., our Chief Operating Officer and Chief Legal Officer***, who brings 17 years of experience in managing complex legal issues in the biopharmaceutical and healthcare industries, including strategically developing, protecting and defending valuable intellectual property at Abbott Laboratories; and
- ***Sapna Srivastava, Ph.D., our Chief Financial and Strategy Officer***, who brings more than 13 years of financial and industry experience as a biotechnology analyst at Goldman Sachs & Co., Morgan Stanley and J.P. Morgan Chase & Co.

In addition, our founders and scientific advisors embody the core elements of our therapeutic approach, having experience with the CRISPR/Cas9 complex, delivery modalities and target diseases. They are considered to be some of the world's leading experts in CRISPR/Cas9 technology and in their respective fields. One of our co-founders, and a co-founder of Caribou Biosciences Inc., or Caribou, Dr. Jennifer Doudna, is widely recognized for her contributions to the development of CRISPR/Cas9 as a genome engineering tool. Additional members of our advisory team have made significant contributions to the understanding of CRISPR/Cas systems and help support the foundation we have today for developing human therapeutics based on gene editing technologies. Our founders are also currently active scientific advisors to the Company and include Dr. Doudna; Dr. Rodolphe Barrangou of North Carolina State University and chairman of the board of directors at Caribou, a pioneer in establishing the adaptive immune function of CRISPR systems; Dr. Rachel Haurwitz, chief executive officer of Caribou, who also serves on our board of directors; Dr. Andrew May, chief scientific officer of Caribou; Dr. Luciano Marraffini of Rockefeller University, a leader in the investigation of the underlying molecular mechanisms of CRISPR immunity; Dr. Derrick Rossi of Harvard Medical School, a hematopoietic stem cell expert; and Dr. Erik Sontheimer of the University of Massachusetts Medical School, an innovator in understanding the mechanism of CRISPR-mediated immunity in bacteria. All of these founder advisors are equity holders of our company and receive compensation as scientific advisors. Although they are regularly available for scientific consultation, our arrangements with these individuals do not entitle us to any of their existing or future intellectual property derived from their independent research or research with other third parties.

Strategy

Our goal is to build a fully integrated, product-driven biotechnology company, focused on developing and commercializing potentially curative CRISPR/Cas9-based therapeutics. Our approach to advancing the broad potential of gene editing includes our plans to:

Focus on Sentinel Indications that Enable Us to Fully Develop the Potential of the CRISPR/Cas9 System. To maximize our opportunity to rapidly develop clinically successful products, we have applied a risk-mitigated approach to selecting sentinel indications that have significant unmet medical needs based on four primary axes:

- the type of edit—knockout, repair or insertion;
- the delivery modality for *in vivo* and *ex vivo* applications;
- the presence of established therapeutic endpoints; and
- the potential for the CRISPR/Cas9 system to provide therapeutic benefits when compared to existing therapeutic modalities.

We believe these selection criteria position us to build a risk-diversified pipeline, where we are not reliant on any single delivery technology or editing approach for success. In addition, we believe we can apply the learnings from these sentinel indications to inform our selection of subsequent indications and targets of interest. We believe this approach serves to increase the probabilities of success in our sentinel indications, generate insights that will accelerate the development of subsequent therapeutic products and broaden the opportunity for potential strategic alliances.

Aggressively Pursue* In Vivo *Liver Indications to Develop Therapeutics Rapidly with Existing Delivery Technology. For our sentinel *in vivo* indications, we selected well-validated targets in diseases with significant

unmet medical needs where there are predictive biomarkers, or measurable indicators of a biological condition or state, with strong disease correlation and where the CRISPR/Cas9 technology and delivery tools existing today could be applied towards developing a novel therapeutic. Our initial *in vivo* pipeline opportunities target diseases of the liver, which we believe we can develop using our existing LNP delivery technology. The first *in vivo* indications we are evaluating are ATTR, AATD, HBV and IEMs.

Continue to Develop and Expand our* Ex Vivo *Therapeutic Programs. In collaboration with Novartis, we intend to rapidly develop the CAR T cell and HSC programs. We believe that our sentinel work in CAR T cells and HSCs will guide us in building a portfolio of additional proprietary *ex vivo* opportunities through our eXtellia division, including expanded immuno-oncology therapeutics beyond CAR T cells, such as modified NK cells and TILs, and autoimmune applications of Tregs, in addition to potential applications for other cell types such as induced pluripotent stem cells, mesenchymal stem cells and muscle satellite stem cells.

Continue to Leverage Strategic Partnerships to Accelerate Clinical Development. We view strategic partnerships as important drivers for accelerating the achievement of our goal of rapidly developing potentially curative therapies. The potential application of CRISPR/Cas9 is extremely broad, and we plan to continue to identify partners who can contribute meaningful resources and insights to our programs and allow us to more rapidly expand our impact to broader patient populations. Our partnership focusing on CAR T cells with Novartis, an industry leader with one of the most advanced clinical CAR T cell programs, and our partnership with Regeneron, a leader in human genetics research, exemplify this strategy.

Grow Our Leadership Position in the Field of Gene Editing. We are committed to broadening our capabilities to remain at the cutting edge of gene editing research. We will continue to invest internally in developing our platform capabilities, including innovative delivery modalities, technologies and tools to advance our therapeutic programs. We will also systematically explore accessing external technologies or opportunities to enhance our leadership position in developing innovative therapeutics.

Gene Editing

Gene editing is the precise and targeted modification of the genetic material of cells. Gene editing works by using an enzyme to make a cut at a particular sequence in the genome, followed by deletions, repairs or insertions of genetic material at the cut site facilitated by the cell's natural DNA repair mechanisms. Coupled with recent advances, including a greater understanding of genetic diseases and maturation of gene therapy and associated delivery technologies, the development of gene editing tools that can permanently and precisely edit DNA may enable the development of therapies that can address, and potentially cure, the cause of DNA-based diseases.

Accordingly, we believe that gene editing has the potential to treat a broad range of diseases not adequately addressed by more traditional therapeutic modalities such as small molecules and biologics. Given its permanent effects on the target DNA in question, gene editing could potentially cure a disease with a single treatment course as opposed to the multi-treatment or chronic dosing regimens often seen with traditional modalities, which typically have transient effects and may require life-long treatment. Additionally, unlike gene therapy, which typically involves introducing a copy of a gene into a patient's cells, gene editing has the potential to make permanent, precise changes directly to the target gene in its normal location, repairing the underlying genetic mutation. This attribute may provide a significant competitive edge over gene therapy, as gene editing can yield a result close to or identical to the normal biological system in addition to addressing a broader spectrum of diseases.

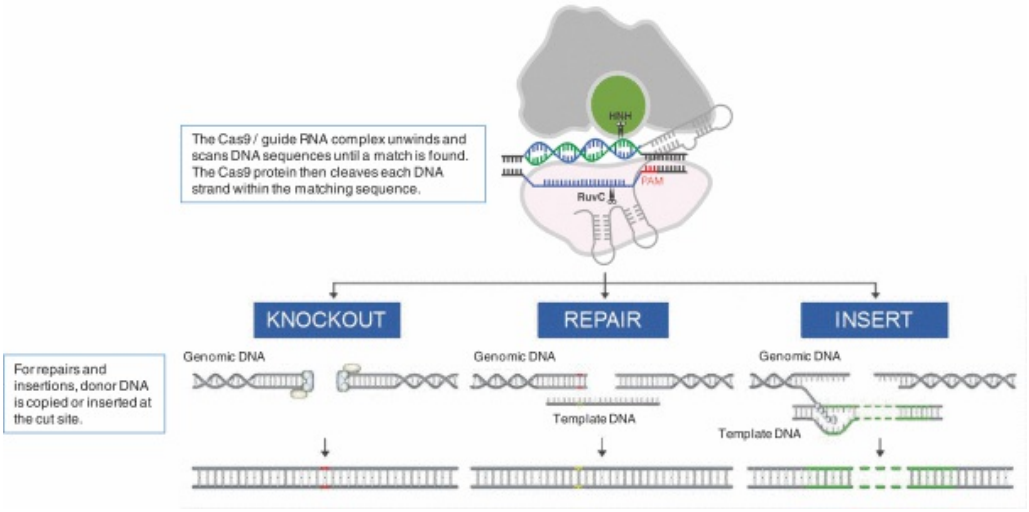
Earlier-generation gene editing methods such as zinc finger nucleases (ZFNs) and transcription activator-like effector nucleases (TALENs) use pairs of synthetic proteins engineered to recognize specific DNA sequences. While these systems have contributed to the clinical development and regulatory pathway for gene editing therapies, their development is relatively complex and costly because each synthetic protein may have variable cleavage activity and can be challenging and time consuming to manufacture because both proteins in the pair must be redesigned for each new target DNA sequence.

About CRISPR/Cas9

One of our co-founders and current scientific advisors, Dr. Rodolphe Barrangou, and other researchers originally characterized CRISPR/Cas systems as naturally occurring defense mechanisms in various bacterial species that protect against foreign DNA. In 2012, another one of our co-founders and current scientific advisors, Dr. Jennifer Doudna, and her colleagues published a paper in the journal *Science* describing the use of CRISPR/Cas9 as a gene editing tool. Following Dr. Doudna's pioneering work, researchers were able to demonstrate the simplicity and versatility of the CRISPR/Cas9 system by quickly applying the system in a variety of contexts to better understand biological mechanisms and investigate disease models, resulting in more than 2,600 published papers since 2012.

Generally, CRISPR/Cas systems include one or more proteins that cleave DNA guided by an RNA guide sequence, pieces of RNA that both recognize specific DNA sequences and activate the cleaving activity of the Cas proteins. In the original bacterial systems, arrays of RNA sequences that recognize foreign DNA are sometimes referred to as clustered regularly interspaced short palindromic repeats, or CRISPRs, while certain proteins have been named as numbered CRISPR associated, or Cas, proteins. Currently, the simplest and most versatile type of CRISPR/Cas system uses the Cas9 protein as the DNA cutting enzyme, as described in Dr. Doudna's seminal paper.

Two basic components of the CRISPR/Cas9 gene editing system are the Cas9 protein and a guide RNA sequence that recognizes and directs the Cas9 to a specific target DNA sequence. The system edits DNA as follows:



Because an RNA sequence complementary to any DNA sequence can be rapidly designed and synthesized, a CRISPR/Cas9 system can be efficiently and specifically reprogrammed by changing only the guide RNA sequence, without any need to modify the cutting protein. The simplicity of programming the CRISPR/Cas9 system, coupled with its efficiency and flexibility, opens the door to a wide range of *in vivo* and *ex vivo* therapeutic applications, including the potential to apply an approach in which multiple genes are edited simultaneously to target more complex multi-gene or polygenic disorders.

We believe that CRISPR/Cas9 offers significant potential benefits over other gene editing methods, including:

- higher selectivity and cleavage efficiency;
- simpler tools allowing for rapid scaling and optimization;
- more efficient path to achieve preclinical proof-of-concept;

- broader applicability to *in vivo* and *ex vivo* therapies;
- greater potential for single curative treatment; and
- greater potential to address polygenic or complex genetic disorders by targeting multiple DNA sites simultaneously.

The CRISPR/Cas9 system allows us to make three general types of edits: knockouts, repairs and insertions. Different diseases can be addressed using one or more of these editing strategies, depending on the particular genetic defect and the spectrum of genetic defects within a patient population.

Type of Edit	Description	Mechanism of Action	Application	Example Indications
Knockout	• Edits that cause loss of function • Can be applied to genes that make harmful proteins or disease-causing viruses	CRISPR/Cas9 engineered to make: • A single cut in a gene to promote addition or deletion of short pieces of DNA, or two cuts in close proximity to delete a fragment of DNA • As a result, the gene is disrupted and the protein is either not made or is non-functional	• Autosomal dominant disorders • Infectious diseases	• Transthyretin amyloidosis • Alpha-1 Antitrypsin Deficiency • Hepatitis B Virus • Inborn Error of Metabolism, such as Primary Hyperoxaluria Type 1, or PH1
Repair	• Edits that repair disease-associated gene mutation(s) • Can be applied to single point mutation or mutations restricted to a small region of DNA	CRISPR/Cas9 engineered to make: • At least one cut at the target site, delivered with a short, single-stranded DNA donor template containing the correct sequence • Cell repairs DNA break by filling in the gap with the corrected sequence from the donor template • Results in expression of the corrected protein	• Any genetic mutation	• Alpha-1 Antitrypsin Deficiency • Several Inborn Errors of Metabolism
Insertion	• Edits that correct a disease-associated gene • Can be applied to insert a functional gene or replace part of a gene where mutations are distributed across a large region of DNA	CRISPR/Cas9 engineered to make: • At least one cut at the target site, delivered with a large, double-stranded DNA donor template containing the correct sequence • Cell repairs DNA break by inserting the donor sequence • Results in expression of the corrected or functional protein	• Protein expression • Insertion of wild-type protein	• Several Inborn Errors of Metabolism, including Phenylketonuria, or PKU

Our Platform

An integral part of developing our therapeutic product candidates and exploring additional potential applications of CRISPR/Cas9 to future indications includes building and improving on various proprietary and in-licensed aspects of our technology platform. We are actively developing robust, high volume, or high-throughput, capabilities centering around CRISPR/Cas9 components, editing strategies and delivery methods that we believe will provide us with a competitive advantage in creating successful therapeutic product candidates.

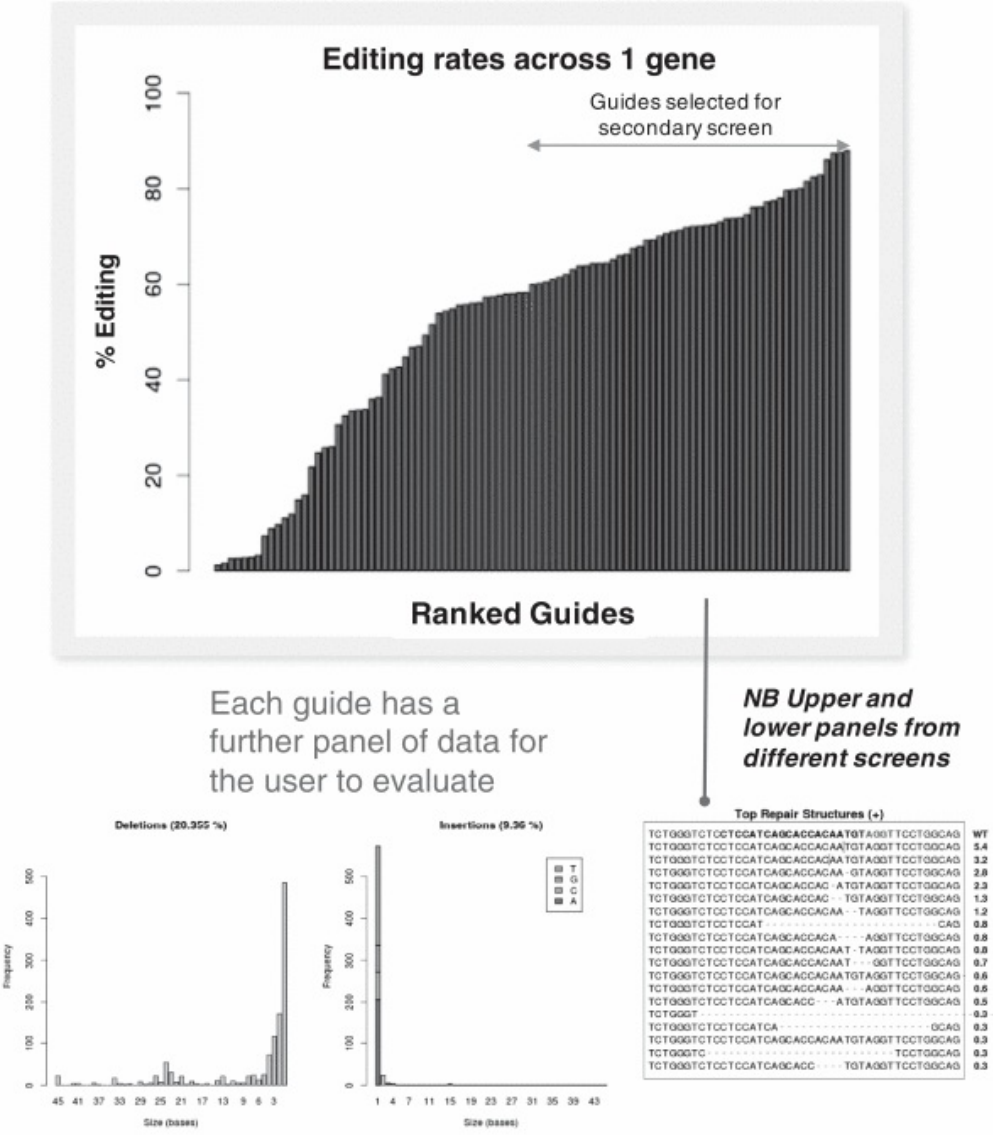
Informatics

We are building a high-throughput, scalable data processing and analysis, or informatics, infrastructure to support various aspects of our platform, including guide RNA selection and analysis of on- and off-target editing in cells. Depending on the desired editing strategy, we use our proprietary bioinformatics methods to design candidate guides and select those that we believe are more likely to be highly specific and have high cutting efficiency. As we grow our experimental data set, we intend to incorporate guide performance into our algorithms to improve their predictive power.

Guide RNA Qualification

As part of the process to identify guide RNAs for potential development candidates, we evaluate the ability of numerous guide RNAs to generate the required edit at the genomic site of interest, called on-target activity, as well as their propensity to generate unwanted events at other sites in the genome, also known as off-target activity. To assess on-target activity, we use high-throughput sequencing methods to analyze the genomes of edited cells, allowing us to assess overall editing efficiency and to examine the nature of the editing events, such as specific insertions or deletions. In the figure below, the top panel shows the ranking of representative screened

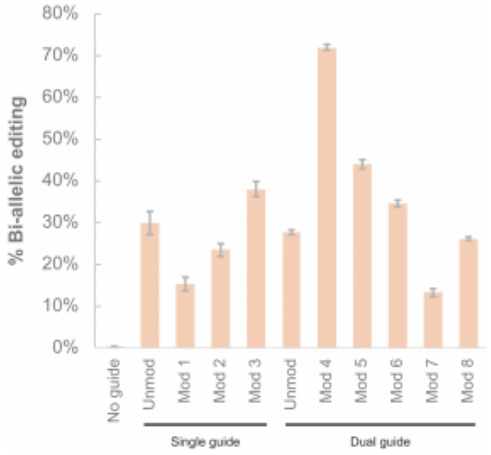
guides by editing efficiency, while the bottom panels show the specific types of edits and the resulting edited sequences. These data enable us to select the most attractive candidate guides to effect the desired on-target edit.



For guide RNAs selected through our primary on-target screens, we perform a variety of analyses to look for possible off-target editing events, including bioinformatic predictions and experimental methods. Part of our approach involves identifying candidate off-target sites based on experimental measurements of genome-wide DNA breaks, as well as targeted sequencing of such candidate sites to evaluate actual off-target editing events in relevant cell types. We continue to improve our guide RNA qualification capability over time by increasing our throughput, advancing our off-target activity detection accuracy and increasing our bioinformatics predictive accuracy.

Guide RNA format

CRISPR/Cas9 systems can function with guide RNAs having a variety of modifications, such as changes to the physical guide RNA structure or chemical modifications of nucleotides. As part of our development of CRISPR/Cas9 therapeutics, we are engineering modified guide RNAs to improve editing efficiency and reduce the likelihood of an immune response. As indicated in the figure below, structural and chemical modifications of a guide targeting the same sequence can have a significant impact on editing rates, demonstrated by the percentage of cells having both copies of the target DNA sequence knocked out, which is referred to as bi-allelic editing. We believe our work in this area will allow us to develop the most appropriate guides for therapeutic applications.



Nuclease

Our current preferred Cas9 protein is derived from a type of bacteria called *S. pyogenes*, or *Spy*, which is the Cas9 used in the vast majority of published CRISPR/Cas9 literature to date. As part of the therapeutic development process, we are adapting and engineering *Spy* Cas9 with the goal of improving its activity and manufacturability. In addition, we are exploring other naturally-occurring Cas9 proteins from other organisms, which may differ from *Spy* Cas9 in aspects such as specificity or size. We are pursuing these alternative Cas9 forms through ongoing internal work, by collaborating with our scientific founders and by investigating in-licensing opportunities. We are also investigating altered versions of Cas9 that can modulate DNA activity by mechanisms other than cleavage. We believe that different therapeutic applications may be best addressed using different forms of Cas9, depending on the target cell or tissue of interest, the delivery method and the desired type of edit.

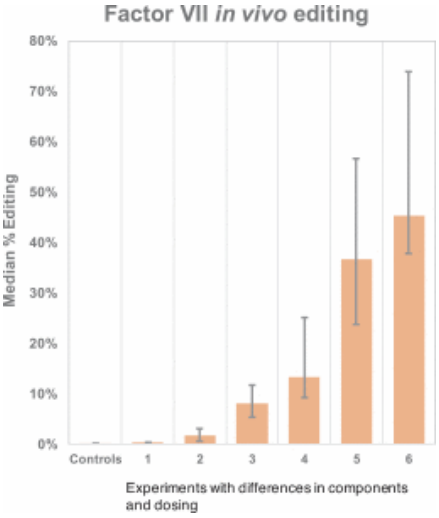
Edit type

While knockout type edits can be made using only a Cas9 protein and guide RNA, repair and insertion type edits additionally require a template nucleic acid that contains the desired corrected or inserted sequence. The way in which the template is provided depends on the delivery modality. For example, for *ex vivo* applications, the DNA template may be delivered by electroporation in combination with a Cas9-guide RNA complex. We are also investigating various *in vivo* strategies for delivering repair and insertion templates, such as delivery by LNPs or by viral vectors. Further, we are developing methods to selectively promote template-based repair or insertion mechanisms in cells, as opposed to non-template-based repair that otherwise may generate knockout type edits. To date, we have observed up to 20% repair type edits in an *ex vivo* setting by administering CRISPR/Cas9 and repair templates to primary cells.

In vivo delivery

We are focusing our initial *in vivo* applications in the liver, with delivery of CRISPR/Cas9 components by lipid nanoparticles, or LNPs.

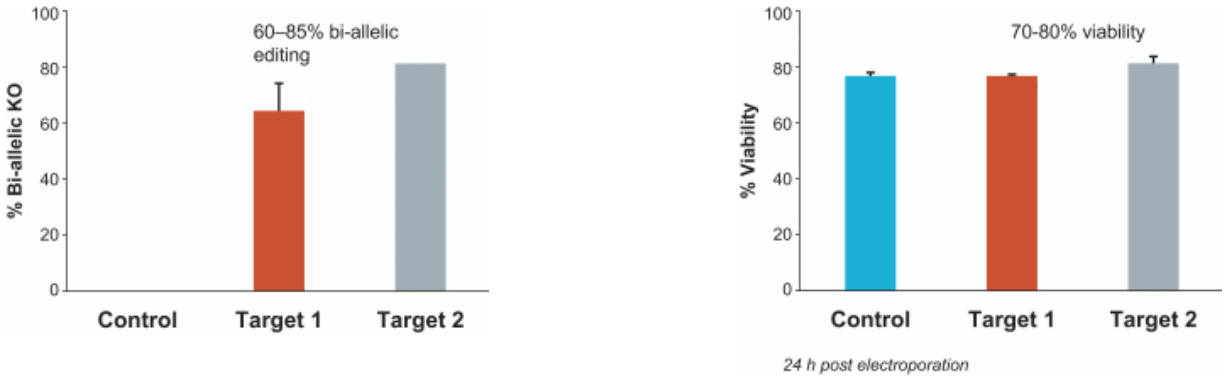
LNPs encapsulate the therapeutic material, providing it with stability, improved pharmacologic properties and controlled circulation time, allowing for transient expression of Cas9. We see multiple advantages of using LNPs as our initial *in vivo* delivery vehicles, particularly as optimized by us for delivery of the CRISPR/Cas9 system. Certain LNPs have demonstrated efficacy, safety and favorable tolerability and are currently used as a delivery system for therapeutic small interfering RNA, or siRNA, as well as therapeutic messenger RNA, or mRNA. mRNA is RNA that encodes proteins, while siRNA is RNA that can interfere with the function of mRNA. There are currently several LNP/siRNA programs in the clinic, with the most advanced in Phase III development. For CRISPR/Cas9-based therapies, where potentially only one or few treatment courses are needed, LNPs have the potential to show a more favorable safety profile when compared to therapeutic modalities like siRNAs where chronic dosing is needed. Additionally, LNPs are chemically well-defined and have a completely synthetic route of manufacture, which permits greater scalability. We are currently advancing our programs using a set of biodegradable, well-tolerated lipids, which were developed by and in-licensed from Novartis for use with CRISPR/Cas9 products. To date, we have successfully demonstrated *in vivo* editing in mouse liver with a single dose of systemically delivered LNPs based on these lipids. The figure below shows editing of a surrogate target, Factor VII, with editing efficiencies varying depending on the specific formulation and components, as well as dosing regimens.



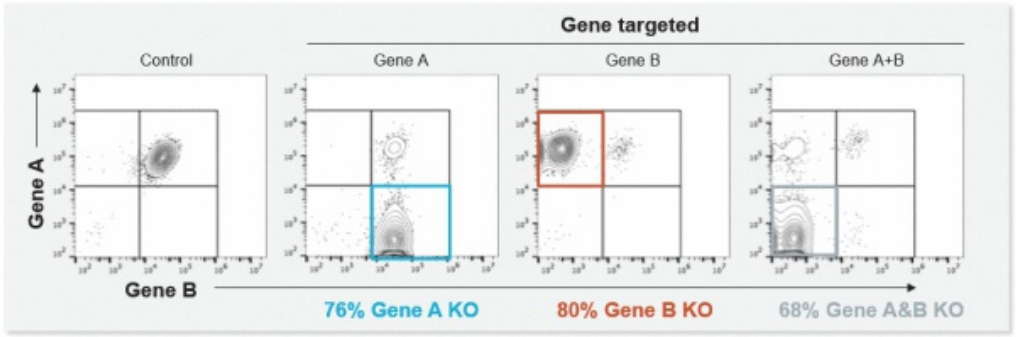
With our team's expertise in LNP delivery technology, we expect to be able to translate the LNPs that we are using for our preclinical evaluation to clinical development in humans. In addition, we are exploring options for incorporating Cas9 into therapeutic products in multiple formats. For example, Cas9 can be delivered in its protein form or could be delivered by a nucleic acid, such as an mRNA or a viral vector. For delivery of Cas9 mRNA, we are also investigating modifications that may improve expression and stability, as well as reduce the potential for an immune response. We plan to continue to optimize LNP formats for a variety of CRISPR/Cas9 therapeutic components, including templates for repair and insertion type edits. In parallel, we are exploring additional delivery vehicles, including synthetic particles and viral vectors, that we believe will allow us to target the central nervous system and other organs.

Ex vivo delivery

Our *ex vivo* delivery approach is a clinically proven delivery method called electroporation, an electrical charge-based technique for delivering molecules into cells. In parallel, we are exploring other delivery methods for *ex vivo* introduction of biological material to cells, which may provide advantages in delivery efficiency or cell viability. In human cells, we have been able to achieve relatively high editing rates of both copies of a single gene, or bi-allelic editing, while preserving cell viability as indicated in the figure below.



We have also simultaneously targeted multiple genes with high bi-allelic editing rates for both genes, demonstrating what we believe to be therapeutically relevant editing of multiple genes simultaneously, or multiplex editing, in an *ex vivo* setting as shown in the figure below. We believe that the ability to achieve multiplex editing may be critical in targeting certain diseases.



Guides are from different genes. CD3⁺ primary T cells. Electroporated RNP (n=3); one replicate shown

Our Pipeline

To accelerate the development and commercialization of CRISPR/Cas9-based products in multiple therapeutic areas, we are targeting sentinel indications using *in vivo* and *ex vivo* approaches to demonstrate proof-of-concept of the various facets of our technology, including the type of edit and CRISPR/Cas9 selectivity and efficiency. We believe that the learnings we gain from each indication will pave the way for rapid expansion of our pipeline by allowing us to target subsequent indications that use the same or analogous delivery vehicles, guide structures and types of edits.

We believe that effective delivery methods will be important for the clinical success of the CRISPR/Cas9 system. Our approach is to undertake a parallel effort on both *in vivo* and *ex vivo* delivery that leverages nearly two decades of research and development in nucleic acid therapeutics and capitalizes on currently available, clinically and preclinically validated technologies, while developing next-generation delivery methods optimized for the CRISPR/Cas9 system.

In Vivo *Pipeline*

Our sentinel *in vivo* indications initially target chronic liver diseases, including ATTR, AATD, HBV and IEMs. Our initial efforts on *in vivo* delivery focus on the use of LNPs for delivery of the CRISPR/Cas9 complex to the liver.

Transthyretin Amyloidosis Program (Knockout Strategy)

Transthyretin is a protein produced primarily in the liver, encoded by the *TTR* gene. This protein carries retinol, or vitamin A, and thyroxine, or thyroid hormone, throughout the body. Certain mutations can cause the protein to aggregate and accumulate in tissues, resulting in a disorder called TTR-mediated amyloidosis, or ATTR. Over 120 different mutations are currently known to cause ATTR. Protein accumulation in peripheral nerves or the heart can result in a severe loss of nerve or cardiac function. Mutations leading to nerve disease cause a syndrome called familial amyloidotic polyneuropathy, or FAP, whereas those leading to heart disease cause a syndrome called familial amyloidotic cardiomyopathy, or FAC. Ongoing amyloid deposition in tissues due to disease progression results in the development of cardiomyopathy and other cardiac symptoms observed in FAC patents. Typical onset of disease symptoms occurs around 20-70 years of age and can be fatal within two to 15 years. Estimates suggest that approximately 50,000 patients suffer from ATTR worldwide.

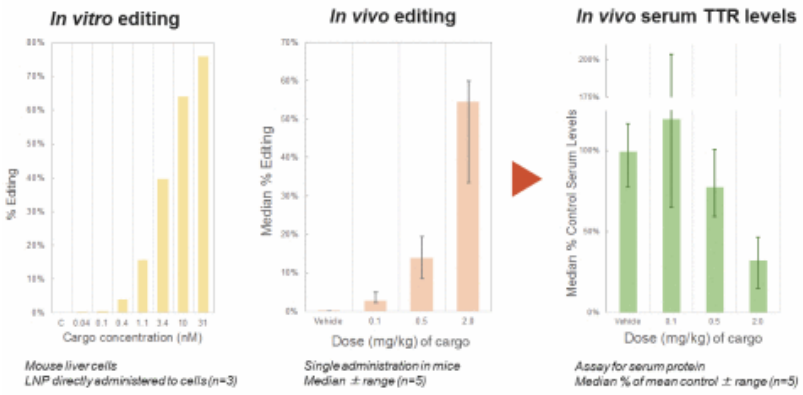
Limitations of Current Treatment Options

Treatment options for ATTR are severely limited and largely ineffective. In advanced cases of FAP, liver transplants can be used to eliminate the source of mutant protein production; however, in a subset of transplanted patients, normal TTR continues to aggregate on existing amyloid deposits resulting in continued disease progression, which results in increased mortality in patients with cardiac symptoms. For FAC patients, the primary therapy involves treatments to prevent heart failure; however, the prognosis for these patients is poor, with an average life expectancy of approximately two to four years from diagnosis.

Our Solution

We believe that we can apply CRISPR/Cas9 technology to potentially cure ATTR by knocking out expression of the defective *TTR* gene in the liver. We expect this approach to greatly reduce or eliminate the production of the disease-causing mutant form of the TTR protein, which should slow or stop the accumulation of protein in the nerves and the heart. Current treatments and ongoing clinical trials in FAP have shown a significant correlation between TTR reduction and clinical benefit. Additionally, these studies suggest that loss of *TTR* expression from the liver would be well-tolerated in adult humans. Accordingly, we believe targeting mutant *TTR* with CRISPR/Cas9 may improve patient outcomes by potentially eliminating mutant *TTR* gene expression in a single or small number of treatments, as opposed to life-long therapy. We have begun to assess

delivery of guide RNAs directed at the *TTR* gene via LNPs and have achieved high levels of liver cell editing *in vitro* and *in vivo* as well as reduction of serum TTR protein in mice after a single intravenous administration, as indicated in the figure below.



Clinical Development Pathway

Our first in-human studies in ATTR will take place in a small number of patients with ATTR who have started to exhibit symptoms related to amyloid deposition. The key objective of these studies will be to show that the therapy can be delivered safely to the patient. A secondary objective will be to identify early indicators of efficacy, which may include reductions in serum levels of mutant TTR protein as well as decreases in amyloid plaques within target tissues. We also plan to assess liver, kidney, heart, and nerve function. We expect that the results of our preclinical studies, and discussions with the FDA, EMA and patient advocacy groups will be important in informing our trial design. Under our collaboration agreement, we expect to co-develop therapies targeting ATTR with Regeneron.

Alpha-1 Antitrypsin Deficiency Program (Knockout and Repair Strategies)

AATD is an inherited genetic disorder that may cause lung or liver disease. The lung disease may result in chronic obstructive pulmonary disease, or COPD, a progressive disease that causes substantial morbidity and mortality while the liver disease is characterized by inflammation and cirrhosis of the liver. In the United States, an estimated 60,000 to 100,000 people have AATD, which is the result of a mutation in the *SERPINA1* gene that normally produces secreted alpha-1 antitrypsin, or AAT, protein. AAT is a protease inhibitor that blocks the activity of various enzymes such as neutrophil elastase, which is an enzyme that fights infections, but when not adequately controlled by AAT, can attack normal tissues, such as lung tissue.

The most common form of AATD arises when a patient has a mutation in both copies of the *SERPINA1* gene, which causes AAT to aggregate inside liver cells, or hepatocytes, rather than being secreted from the liver. The inability to secrete AAT leaves the lung unprotected from neutrophil elastase and can result in pulmonary disease. The pulmonary consequences of AATD can sometimes culminate in COPD. Estimates suggest that between 1% and 2% of all cases of COPD in the United States have AATD as the underlying cause. In some patients, AAT accumulates in the liver, causing liver inflammation and cirrhosis, which leads to liver damage, scarring and in the most severe cases, liver failure or cancer. Liver disease associated with AATD is diagnosed from infancy to adulthood, whereas lung disease is most common in adult patients.

Limitations of Current Treatment Options

There is currently no cure for AATD. The most common form of treatment for AATD-related lung disease is intravenous augmentation therapy, or plasma protein replacement therapy, where patients are infused with donor plasma proteins enriched for AAT. The goal of this treatment is to increase the levels of AAT circulating

in the body to protect lung tissue from neutrophil elastase. Patients are infused weekly and require life-long treatment. The infused proteins slow, but do not cure, the pulmonary pathology. Existing treatment options also include standard forms of therapy for COPD, such as bronchodilators, anti-inflammatory agents and antibiotics, which only address disease symptoms. None of these treatments address the hepatic form of the disease, where in the most severe cases, liver transplantation may be needed.

Our Solution

We believe that we can apply the CRISPR/Cas9 technology to cure AATD by addressing the defective *SERPINA1* gene. We intend to evaluate two editing approaches—a knockout and a repair. Our knockout program for AATD will be best suited for patients with AATD-associated liver disease, as there is currently no effective way to reduce the accumulation of mutated AAT in the liver. With this strategy, we intend to eliminate production of the aberrant form of AAT by knocking out the mutated *SERPINA1* gene with a Cas9-mediated cut. We believe this knockout will halt the production and accumulation of AAT in the liver but will not by itself address the lack of AAT circulation that leads to lung disease. Therefore, in this approach, we expect that patients with AATD-associated lung disease will be treated with plasma protein supplementation to achieve levels of the normal form of AAT to be active against the lung disease. Appropriate guide RNA selection will be important for achieving this knockout with high specificity and high efficiency.

We believe our repair approach for AATD will address the lung disease as well as the liver disease. With this strategy, we intend to correct the mutated *SERPINA1* gene, which we believe will eliminate production of the aberrant form of AAT and also establish production of the normal protein in the liver. We believe this correction will reduce or eliminate liver inflammation and increase levels of normal circulating AAT, which should protect the lung from neutrophil elastase, thereby reducing or eliminating the need for plasma protein augmentation therapy. There is preclinical evidence that hepatocytes with normal AAT may possess a growth advantage over those that express the mutated form, suggesting that repair of only a limited number of hepatocytes might be sufficient to address this disease. We expect the progress of this program to follow our AATD knockout program. Depending on the results of our studies and potential development requirements and timelines, we may decide to pursue one or both of our knockout and repair programs in clinical development.

Clinical Development Pathway

For both our knockout and repair strategies, our first in-human studies will take place in a small number of patients with AATD. The key objective of these studies will be to show that the therapy can be delivered safely to the patient. A secondary objective will be to identify early indicators of efficacy, which may include reductions in levels of mutated AAT protein, increases in production of normal circulating AAT protein and the required tests for determining liver and lung function. We will also seek to observe whether we have achieved pre-determined levels of properly functioning AAT in the blood, which has been used historically as a biomarker for approval of augmentation therapy approaches. We expect that the results of our preclinical studies and discussions with the FDA, other global regulatory agencies and the AATD community will be important for selecting the appropriate patients and endpoints for our clinical trials.

Hepatitis B Virus Program (Knockout Strategy)

Hepatitis B is an infection of the liver caused by HBV which can progress from acute to chronic infection in approximately 5-10% of infected adults. Chronic HBV can result in long-term health problems, including liver damage, liver failure, liver cancer or even death. Chronic HBV affects approximately 240 million people globally and contributes to an estimated 786,000 deaths each year. In the United States, an estimated 700,000 to 1.4 million persons have chronic HBV, with 2,000 to 4,000 HBV-related deaths per year.

Limitations of Current Treatment Options

We believe there is a clear unmet need for patients with chronic HBV. The current treatment options, which include interferons and nucleos(t)ide analogs, primarily control viral replication but rarely eradicate the virus.

Additionally, different genotypes of HBV have variable responses to existing treatments. In the United States, despite the large pool of diagnosed HBV patients, many patients do not receive treatment. Current treatments are typically life-long with risks of long-term side effects.

The persistence of chronic HBV results from a form of the virus that is found in the host nucleus known as cccDNA, which serves as a template for viral replication. It also acts as a reservoir of the virus, which can become reactivated and re-infect that patient. Clinical evidence suggests that the presence of cccDNA is a significant reason that HBV cannot be eliminated in most patients. There are currently no approved therapies that specifically eradicate cccDNA from infected patients.

Our Solution

We believe that treatment of HBV with a CRISPR/Cas9-based therapeutic has the potential to cure the disease as it could eradicate cccDNA reservoirs with one or a few treatment courses. For this therapeutic program, we intend to use a knockout strategy to destroy or render inactive the copies of HBV cccDNA in infected human cells. We believe this therapy could offer a significant improvement over existing treatment options that are life-long and do not cure the disease. We believe it is also possible that a common treatment solution can be developed for all genotypes of HBV because we can target portions of the cccDNA sequences that are the same across genotypes. In addition, there is potential to reduce viral resistance as the virus itself is eradicated.

According to published research studies, CRISPR/Cas9-mediated cuts can significantly reduce intracellular levels of cccDNA when tested *in vitro*. We believe we can use the CRISPR/Cas9 system to help eliminate the reservoirs of cccDNA in infected HBV patients. We intend to evaluate different knockout approaches to eliminate cccDNA *in vivo*, including cleaving the cccDNA in various individual or a combination of locations.

We have completed a bioinformatic analysis of potential CRISPR/Cas9 target sites in the HBV genome to select a set of guide RNAs, including several which can be effective across all HBV genotypes. We have identified potential CRISPR/Cas9 target sites by examining the known sequences of HBV isolated from patients. We plan to use a cell line that produces infectious HBV particles as well as cccDNA to identify lead guide RNAs. The lead guide RNAs will then be assessed for their ability to prevent infection and propagation of HBV, and evaluated for off-target effects, in both cell and animal models of HBV.

Clinical Development Pathway

We expect our expected clinical development path to indicate evidence of safety and antiviral activity in patients infected with HBV. The key objective of this study will be to show that the therapy can be delivered safely to the patient, with a secondary objective of identifying early indicators of antiviral effect. We expect that the results of our preclinical studies and discussions with the U.S. Food and Drug Administration, or FDA, other global regulatory agencies and the HBV community, will be important for selecting the appropriate patients and endpoints for our clinical trials.

Inborn Errors of Metabolism, or IEM, Program (Knockout, Repair and Insertion Strategies)

IEMs span a range of conditions, many severe or fatal, and frequently untreatable. Current treatment options for many IEMs are unsatisfactory and often include bone marrow or liver transplants, which pose the challenge of serious side effects including high risk of mortality in some cases. Individual IEMs are rare disorders, many having an incidence of fewer than 1 in 100,000 births. These diseases typically involve defects in single genes that code for enzymes that facilitate the metabolism of certain cellular components. Mutations in these enzymes can result in accumulation of metabolic intermediates, which are molecules that are precursor compounds in the chemical pathway leading to final metabolic products, that are toxic or interfere with normal biology. We are evaluating a large set of candidate IEMs, including primary hyperoxaluria type 1, or PH1, argininosuccinic lyase deficiency, ornithine transcarbamylase deficiency, phenylketonuria, or PKU, and maple syrup urine disease. Our selection criteria for our initial IEM indications include identifying diseases that originate in the liver, have well-defined mutations that can be addressed by a single knockout, repair or insertion approach, have readily measurable therapeutic endpoints with observable clinical responses, and for which there are no effective treatments.

Ex Vivo *Pipeline*

Our sentinel *ex vivo* programs are in CAR T cell and HSC applications. Under our strategic collaboration with Novartis, our CAR T cell program is exclusive to Novartis. We retain the right to develop and commercialize certain of the HSC programs that we discover with Novartis while others will be proprietary to Novartis. Our *ex vivo* programs will help inform the broader applicability of CRISPR/Cas9 in other relevant types of immune cells, such as NK cells and TILs, in addition to potential applications in other cell types such as induced pluripotent stem cells, mesenchymal stem cells and muscle satellite stem cells.

For our *ex vivo* programs requiring delivery to extracted cells such as HSCs or T cells, we initially plan to deliver the CRISPR/Cas9 complex by electroporation. In parallel with electroporation, we are exploring alternative technologies for delivery to cells *ex vivo*, such as membrane disruption via mechanical forces or modified chemical compositions outside the cells, which may provide advantages in delivery efficiency or cell viability.

CAR T Cell Program

CAR T cell therapies are currently being developed for blood cancers such as acute lymphoblastic leukemia, or ALL, acute myeloid leukemia, multiple myeloma and chronic lymphocytic leukemia. In CAR T cell therapy, naturally-occurring immune cells, specifically T cells, are modified *ex vivo* by inserting a chimeric antigen receptor, or CAR, into the T cells, thereby activating an immune response against cancer cells. CAR T cell products, including Novartis' CAR T cell candidate, CTL019, have shown clinical promise in addressing hematological malignancies such as ALL. While existing CAR T cell products have shown great clinical promise, they can benefit from the application of CRISPR/Cas9 in multiple ways.

- CRISPR/Cas9 could be used to create a universal donor CAR T cell by knocking out cell surface markers that cause a patient's immune system to recognize another person's cells as foreign. Allowing multiple patients to be treated using cells from a single donor could significantly streamline manufacturing and make CAR T cell therapy more widely accessible.
- CRISPR/Cas9 could be used to modulate pathways in T cells to enhance their survival or activity against cancer cells.
- CRISPR/Cas9 could be used to introduce the CAR into a precise location, as opposed to the current method involving semi-random integration, thus potentially improving the safety profile of the resulting cells.
- CRISPR/Cas9 could be used to knockout one or more of the proteins believed to be responsible for certain serious side effects that can result in dangerously high fevers or severe loss of blood pressure.

We could potentially combine two or more of these approaches to further enhance CAR T cell therapy.

HSC Program

HSCs are the stem cells from which all of the various types of blood cells originate. HSCs can fully repopulate a patient's blood system following transplantation of bone marrow, mobilized peripheral blood or cord blood, which contain HSCs. There are multiple potential opportunities for treating patients using engineered HSCs, including three common classes of blood-related disorders: hemoglobin disorders, such as sickle cell disease and beta thalassemia; primary immune deficiencies, such as X-linked severe combined immunodeficiency, or X-SCID; and bone marrow failures, such as Fanconi anemia. There are limited treatment options available for these types of blood disorders, and available options typically require chronic blood transfusions or bone marrow transplants. These procedures are associated with significant risk, including mortality. We believe the CRISPR/Cas9 system can be used to potentially provide curative benefits by correcting the underlying genetic defect in blood cells of patients with these disorders. In additional applications, normal HSCs may be engineered *ex vivo* using CRISPR/Cas9 to express a therapeutic protein, which is then administered to patients in need of that protein.

Challenges of developing stem cell products include the relatively low quantity of available cells for treatment and a limited ability to expand HSCs *ex vivo*. We expect to counter these challenges by employing a proprietary small molecule for HSC expansion to which Novartis has granted us rights. This small molecule could allow us to generate large numbers of HSCs for re-implantation in patients after editing. We expect that the application of this technology will improve the performance of the blood cell graft and improve patient outcomes and recovery times as more therapeutic cells can be administered.

We are pursuing a number of potential gene targets and therapeutic indications in collaboration with Novartis. Under our collaboration with Novartis, we and Novartis each have the right to designate a fixed number of HSC therapeutic targets during multiple selection windows, with Novartis having the right of first target selection. Our selection criteria for development programs include, among others, disease severity, existing treatment options, delivery efficiency, the nature of the genetic edit required and the expected performance of cells modified by the procedure. We expect the first investigational new drug application for an HSC program under the Novartis collaboration to be submitted by Novartis in 2018.

CAR T Cell and HSC Development Collaboration with Novartis

Under this collaboration, we received an upfront technology access payment from Novartis of $10.0 million and are entitled to up to an additional $40.0 million, in the aggregate, in additional technology access fees and research payments during the five-year collaboration term, subject to certain credits and adjustments in favor of Novartis. In addition, we are eligible to earn up to $230.3 million in development, regulatory and sales-based milestone payments and mid single-digit royalties, in each case, on a per-product basis for the products developed by Novartis. For more information regarding our ongoing collaboration with Novartis, see the section entitled "—Collaborations—Novartis Institutes for BioMedical Research, Inc." appearing elsewhere in this prospectus for more information.

Future Development Opportunities

We believe our sentinel indications will provide us with broad experience across a variety of gene editing strategies that we can apply to selecting future therapeutic opportunities.

In Vivo

Future indications requiring delivery to tissues in organs beyond the liver, such as the eye, muscle or central nervous system, will require more research and development work, including around next generation delivery methods. As we progress our sentinel liver programs, we are actively investigating additional delivery methods, including evaluating multiple viral delivery vectors that may allow us to explore therapies for indications in additional tissues. One viral vector that we are evaluating, adeno-associated virus, or AAV, is already utilized in a gene therapy product approved in the European Union, or EU. While AAV has enough capacity to deliver a Cas9 protein and guide RNA, a second vector would be required for applications involving a larger DNA repair template. We believe that using a multi-vector system is feasible for effecting more complex repairs; however, we are also exploring alternative viral delivery systems including larger capacity vectors based on adenovirus, lentivirus and herpes simplex virus. In certain cases, these viral vectors can be modified to deliver nucleic acid material to specific cells or tissue types, allowing for customized delivery of CRISPR/Cas9 components to the cells needing repair. Given the variety of possible genetic targets for CRISPR/Cas9, we are currently evaluating the technologies of several academic groups and companies with expertise in various delivery systems to determine the best delivery vehicle for different therapeutic indications. In choosing a delivery vehicle for a particular application, we will consider factors including capacity, delivery specificity and efficiency, clinical safety, immunogenicity and manufacturing ability. Internally, we are developing CRISPR/Cas9 components and systems that we believe can be easily adapted to multiple delivery systems.

Ex Vivo

We expect that our experience in CAR T cells will guide us in building a portfolio of additional *ex vivo* opportunities through our eXtellia division, enabling us to expand the application of CRISPR/Cas9 for immuno-

oncology therapeutics beyond CAR T cells, including to tumor-infiltrating lymphocytes, or TILs, cytotoxic T lymphocytes, or CTLs, and CAR-engineered natural killer cells, or CAR-NKs. The field of immuno-oncology is still emerging and rapidly developing. Immunologists continue to gain key insights about the regulation of the immune system, the role of different cell types that elicit the immune response, pathways that govern the survival of cells and methods to manipulate cells for therapeutic purposes. We plan to apply this information to further expand our efforts in oncology, both solid and hematological, or liquid, tumors and believe we can gain the following benefits from our application of CRISPR/Cas9 to these immuno-oncology therapeutics:

- enhanced efficacy by receptor engineering;
- enhanced potency by checkpoint engineering;
- enhanced safety by applying kill switches; and
- simplified manufacturing by creating allogenic products requiring non-viral manufacturing.

We believe that we can further apply the experience we gain in immuno-oncology to autoimmune diseases, which result from the immune system recognizing a patient's own cells or proteins as foreign to the body. Autoimmune diseases can arise when Tregs have insufficient activity. Gene editing may be used to increase the activity of Tregs by targeting certain regulatory proteins, which we believe will enhance efficacy by improving homing to the target tissue and enhance potency by improving suppressor function.

While our initial focus is on CAR T cells and HSCs, under our Novartis collaboration, and immuno-oncology and autoimmune and inflammatory diseases under our eXtellia division, we plan to explore in eXtellia other cell types where we believe we can effectively apply CRISPR/Cas9 technology, such as pluripotent stem cells, mesenchymal stem cells and muscle satellite stem cells. We believe that we can apply CRISPR/Cas9 to modify these cells to produce therapeutically relevant proteins for the treatment of systemic disease upon reimplantation of the modified cells into patients. Advances in delivery technologies and CRISPR/Cas9 platform optimizations made through our sentinel *ex vivo* programs will facilitate development of any of these subsequent programs.

Collaborations

To accelerate the development and commercialization of CRISPR/Cas9-based products in multiple therapeutic areas, we have formed, and intend to seek other opportunities to form, strategic alliances with collaborators who can augment our leadership in CRISPR/Cas9 therapeutic development.

Novartis Institutes for BioMedical Research, Inc.

In December 2014, we entered into a strategic collaboration and license agreement with Novartis, focused on the development of new *ex vivo* CRISPR/Cas9-based therapies using CAR T cells and HSCs.

Under the terms of the collaboration, we and Novartis may research potential therapeutic, prophylactic and palliative *ex vivo* applications of our CRISPR/Cas9 platform in HSCs and CAR T cells. The collaboration is also governed by research plans for each of the HSC and CAR T cell programs that outline the parties' responsibilities under, anticipated timelines of and budgets for the programs, and is overseen by a joint steering committee, or JSC, formed by representatives from us and Novartis. Among other activities, the JSC reviews the collaboration program and forms subcommittees to evaluate and nominate the pool of potential research targets under and approve the research plans for the HSC and CAR T cell programs.

Within the HSC therapeutic space, Novartis may obtain exclusive rights to a limited number of HSC targets, to be chosen by Novartis in multiple selection windows. We have the right to choose a limited number of HSC targets for our exclusive development and commercialization per the specified selection schedule. Following these selections by Novartis and us, Novartis may obtain rights to research an additional limited number of HSC targets on a non-exclusive basis. Novartis is required to use commercially reasonable efforts to research, develop, and commercialize a specified number HSC products directed to each of their selected HSC targets.

We have also agreed to collaborate with Novartis on research activities for CAR T cell targets pursuant to the CAR T cell program research plan approved by the CAR T cell subcommittee of the JSC. After completion of the research activities contemplated by the CAR T cell program research plan, Novartis will assume sole responsibility for developing any products arising from that research plan and the costs and expenses of developing, manufacturing and commercializing selected research targets. Novartis is required to use commercially reasonable efforts to research, develop or commercialize at least one CAR T cell product directed to each of the selected CAR T cell targets.

In the last two years of the five-year collaboration term, Novartis will have the option to select a limited number of targets for research, development and commercialization of *in vivo* therapies using our CRISPR/Cas9 platform, on a non-exclusive basis. Following Novartis' selection of each *in vivo* target, Novartis may offer us the right to participate in the research and development of such targets, in which case an *in vivo* program research plan for such target will be entered into between us and Novartis. Novartis is required to use commercially reasonable efforts to research, develop and commercialize at least one *in vivo* product directed to each of their selected *in vivo* targets. Novartis' *in vivo* target selections are subject to certain restrictions, including that the targets, or all targets within a limited number of organs: (i) have not already been reserved by us pursuant to our limited right to do so under the agreement; (ii) are not the subject of an existing out-license of our CRISPR/Cas9 platform to a third party; and (iii) are not the subject of ongoing or planned research and development by us.

During the collaboration term, with respect to the HSC and CAR T cell programs, and for as long as the applicable party continues to use commercially reasonable efforts to research, develop and commercialize the HSC, CAR T cell and *in vivo* products contemplated by the agreement, neither party may collaborate with a third party with regard to the activities contemplated by the HSC, CAR T cell or *in vivo* programs nor grant licenses to practice such party's intellectual property licensed under the agreement in the selected HSC or CAR T cell or *in vivo* field to a third party. Following the collaboration term, if Novartis fails to comply with its obligation to research, develop and commercialize at least one HSC or CAR T cell product, we will have the right to terminate Novartis' exclusive rights with respect to the selected HSC or CAR T cell target and terminate Novartis' license to practice our intellectual property licensed under the agreement in such applicable target.

Under the agreement, we received an upfront technology access payment of $10.0 million and are entitled to an additional $40.0 million, in the aggregate, in additional technology access fees and research payments during the five-year collaboration term. In addition, for each product under the collaboration, we may be eligible to receive (i) up to $30.3 million in development milestones, including for the filing of an investigational new drug application and for the dosing of the first patient in each of Phase IIa, Phase IIb and Phase III clinical trials, (ii) up to $50.0 million in regulatory milestones for the product's first indication, including regulatory approvals in the U.S. and the EU, (iii) up to $50.0 million in regulatory milestones for the product's second indication, if any, including U.S. and EU regulatory approvals, (iv) royalties on net sales in the mid-single digits, and (v) net sales milestone payments of up to $100.0 million. In addition, Novartis will reimburse us for all royalty payments owed by us as a result of its sales under the intellectual property we license from Caribou.

We granted to Novartis a license to our CRISPR/Cas9 platform technology and Novartis granted us a non-exclusive license to its small molecule for HSC expansion and to its LNP platform technology for the purposes of performing activities contemplated by the collaboration. Our license grant to Novartis of our CRISPR/Cas9 platform technology, including a sublicense to certain platform rights licensed from Caribou, is exclusive in the HSC, CAR T cell and *in vivo* fields with respect to each target selected by Novartis pursuant to the agreement and the research plan as long as Novartis continues to use commercially reasonable efforts to research, develop, and commercialize products directed to such targets. Upon the expiration of the collaboration term, Novartis shall have the option to access and obtain a non-exclusive license to our CRISPR/Cas9 platform technology to research, develop and commercialize potential therapeutic, prophylactic and palliative products and services for a limited number of certain approved targets selected by Novartis, exercisable upon written notice to us within a specified time after the expiration of the collaboration term. Such approved targets are subject to certain restrictions, including that the targets may not have been already reserved by us pursuant to our limited right to do so under the agreement, may not be the subject of an existing out license of our CRISPR/Cas9 platform to a third party and may not be the subject of ongoing or planned research and development by us. This non-exclusive

license will have a term of five years commencing upon the completion of the technology transfer by us enabling Novartis to practice such licensed rights, and Novartis may not select more than a specified number of approved targets in each year of this license term.

Intellectual property developed out of the collaboration related to our CRISPR/Cas9 platform will be owned solely by us, while all other intellectual property developed out of the collaboration, including intellectual property covering products arising from the collaboration, will be jointly owned by us and Novartis.

The collaboration term ends in December 2019. The term of the agreement expires on the later of (i) the expiration of Novartis' payment obligations under the agreement and (ii) the date of expiration of the last-to-expire of the patent rights licensed to us or Novartis under the agreement. Novartis' royalty payment obligations expire on a country-by-country and product-by-product basis upon the later of (i) the expiration of the last valid claim of the royalty-bearing patents covering such product in such country or (ii) 10 years after the first commercial sale of such product in such country. We may terminate the agreement if Novartis or its affiliates institute a patent challenge against our intellectual property rights, and all improvements thereto, licensed to Novartis under the agreement. Novartis may terminate the agreement, without cause, upon 90 days' written notice to us subject to certain conditions, including its payment of any accrued and future obligations as if the collaboration had continued through December 2019. Novartis may terminate the agreement if the owners or licensees of U.S. patent 8,697,359 bring a suit against Novartis on or before December 31, 2017 claiming that the activities specifically contemplated by the collaboration research plans infringe an independent claim of such patent. Either party may terminate the agreement in the event of the other party's uncured material breach or bankruptcy—or insolvency-related events.

Regeneron Pharmaceuticals, Inc.

In April 2016, we entered into a license and collaboration agreement with Regeneron. The agreement includes a product component to research, develop and commercialize CRISPR/Cas-based therapeutic products primarily focused on gene editing in the liver as well as a technology collaboration component, pursuant to which we and Regeneron will engage in research and development activities aimed at discovering and developing novel technologies and improvements to CRISPR/Cas technology to enhance our gene editing platform. Under this agreement, we also have the ability to access the Regeneron Genetics Center and proprietary mouse models to be provided by Regeneron for a limited number of our liver programs.

Under the terms of our collaboration, we and Regeneron have agreed to a target selection process, whereby Regeneron may obtain exclusive rights for up to 10 targets to be chosen by Regeneron during the collaboration term, subject to various adjustments and limitations set forth in the agreement. Of these 10 total targets, Regeneron may select up to five non-liver targets, while the remaining targets will be focused in the liver.

We retain the exclusive right to solely develop products for our sentinel liver indications, other than ATTR, which are the "Reserved Targets." ATTR, the first target selected by Regeneron, is subject to a co-development and co-commercialization arrangement between us and Regeneron. During the target selection process, we have the right to choose additional liver targets for our own development using commercially reasonable efforts. Certain targets that either we or Regeneron select may be subject to further co-development and co-commercialization arrangements at our or Regeneron's option, as applicable. In addition, subject to certain restrictions, Regeneron will be able to replace a limited number of targets with substitute targets upon the payment of a specified replacement fee, in which case exclusive rights to the replaced target revert to us. Regeneron's target selections are subject to certain additional restrictions, including that non-liver targets are not the subject of ongoing or planned research and development by us or are not the subject of a collaboration or pending collaboration with a third party.

A joint steering committee consisting of an equal number of representatives from us and Regeneron will oversee the general strategies and activities undertaken by the parties under the collaboration. Research activities under the collaboration will be governed by evaluation and research and development plans that will outline the parties' responsibilities under, anticipated timelines of and budgets for, the various programs. We will assist Regeneron with the preliminary evaluation of liver targets and Regeneron will be responsible for preclinical research and the conduct of clinical development, manufacturing and commercialization of products directed to

each of its exclusive targets under the oversight of the joint steering committee. We may assist, as requested by Regeneron, with the later discovery and research of product candidates directed to any target. For each selected target, Regeneron is required to use commercially reasonable efforts to submit regulatory filings necessary to achieve initial IND acceptance for at least one product directed to each applicable target, and following IND acceptance for at least one product, to develop and commercialize such product.

We may research, develop, manufacture or commercialize products for our Reserved Targets, on our own or in collaboration with a third party. During the collaboration term, we, on our own or in collaboration with a third party, may not research, develop, manufacture or commercialize a liver target that is subject to a Regeneron co-development and co-commercialization option or that Regeneron may potentially select through the target selection process.

In connection with this collaboration, Regeneron agreed to purchase $50.0 million of our common stock in a private placement, and we received a nonrefundable upfront payment of $75.0 million. In addition, we are eligible to earn, on a per-licensed target basis, up to $25.0 million, $110.0 million and $185.0 million in development, regulatory and sales-based milestone payments, respectively. We are also eligible to earn royalties ranging from the high single digits to low teens, in each case, on a per-product basis, which royalties are potentially subject to various reductions and offsets and are further subject to our existing low single-digit royalty obligations under our Caribou license agreement.

We have granted Regeneron exclusive rights to develop and commercialize products directed to its selected targets. The parties will jointly own intellectual property created as part of the technology collaboration and target-specific research plans, subject to certain exceptions where Regeneron will solely own certain intellectual property specific to its products and we will solely own certain CRISPR/Cas intellectual property arising during target evaluation activities. Each party has granted the other party specified intellectual property licenses to enable the other party to perform its obligations and exercise its rights under the agreement, including license grants to enable each party to conduct research, development and commercialization activities pursuant to the terms of the agreement.

The collaboration term ends in April 2022, provided that Regeneron may make a one-time payment of $25.0 million to extend the term for an additional two-year period. The agreement will continue until the date when no royalty or other payment obligations are due, unless earlier terminated in accordance with the terms of the agreement. Regeneron's royalty payment obligations expire on a country-by-country and product-by-product basis upon the later of (i) the expiration of the last valid claim of the royalty-bearing patents covering such product in such country, (ii) 12 years from the first commercial sale of such product in such country, or (iii) the expiration of regulatory exclusivity for such product. We may terminate the agreement on a target-by-target basis if Regeneron or any of its affiliates institutes a patent challenge against our CRISPR/Cas or certain other background patent rights. We may also terminate the agreement on a target-by-target basis if Regeneron does not proceed with the development of a product directed to a selected target within specified periods of time. Regeneron may terminate the agreement, without cause, upon 180 days written notice to us, either in its entirety or on a target-by-target basis, in which event, certain rights in the terminated targets and associated intellectual property revert to us, as described in the agreement. Following such termination, we will owe Regeneron royalties in the low to mid single digits on any terminated targets that we subsequently commercialize on a product-by-product basis for a period of 12 years after the first commercial sale of any such products. Either party may terminate the agreement either in its entirety or with respect to the technology collaboration or one or more of the targets selected by Regeneron, in the event of the other party's uncured material breach.

Potential Future Collaborations

We view strategic partnerships as important drivers for helping accelerate our goal of rapidly treating patients. The potential application of CRISPR/Cas9 is extremely broad, and we plan to continue to identify partners who can contribute meaningful resources and insights to our programs and allow us to more rapidly expand our impact to broader patient populations. In forming these partnerships, we believe we will be able to more rapidly expand our impact to broader patient populations.

Intellectual Property

We believe we are well positioned in terms of our intellectual property because we:

- have built, and intend to expand, a broad worldwide portfolio of intellectual property in areas relevant to the development and commercialization of human therapeutic products using CRISPR/Cas9 technology;
- protect our intellectual property by maintaining trade secrets relating to our proprietary technology innovations and know-how; and
- intend to take additional steps, where appropriate, to further protect our intellectual property rights, including, for example, through the use of copyright protection and regulatory protection available via orphan drug designations, data exclusivity, market exclusivity, and patent term extensions.

Our licensed patent portfolio encompasses foundational filings on the use of CRISPR/Cas9 systems for gene editing, improvement modifications of these CRISPR systems, LNP technologies for delivering protein/nucleic acid complexes and RNA into cells, and cell expansion technology relevant to stem cell-based therapies. We access these patent estates through licenses from Caribou Biosciences, Inc., or Caribou, and Novartis. We also actively apply for, maintain, and plan to defend and enforce, as needed, our internally developed and externally licensed patent rights. Furthermore, we continue to search for and evaluate opportunities to in-license intellectual property relevant to our targeted therapeutic programs and to develop and acquire new intellectual property in collaboration with third parties.

Our portfolio of patent rights includes the following:

Caribou Biosciences In-Licensed Intellectual Property

In July 2014, we entered into a license agreement with Caribou, as subsequently amended and supplemented, for an exclusive, worldwide license for human therapeutic, prophylactic, and palliative uses, except for anti-fungal and anti-microbial uses, defined in the license agreement as our field of use, of any CRISPR/Cas9-related patents and applications owned, controlled or licensed by Caribou as well as companion diagnostics to our product or product candidates. The license agreement also includes exclusive rights in our field of use to any CRISPR/Cas9-related intellectual property developed by Caribou between July 16, 2014 and, at least, July 16, 2016. The agreement further includes a non-exclusive research license to conduct research and development on product candidates and products. The Caribou licensed patent portfolio includes several U.S. and foreign patents and patent applications owned by Caribou and U.S. and foreign patents and patent applications owned by The Regents of the University of California and the University of Vienna, as well as U.S. and foreign patents and patent applications owned or controlled by Pioneer Hi-Bred and its affiliates. We have the right to grant sublicenses to the Caribou licensed patent portfolio to third parties in our field of use. Caribou retains the right to practice the licensed intellectual property in all other fields, including for its own specific therapeutics purposes, provided it does not pertain to the application of CRISPR/Cas9 technology to the development of products in our field of use.

Pursuant to a services agreement entered into with Caribou in parallel with the license agreement, we are also receiving two years of research and development services from Caribou. Under the services agreement's research plan, Caribou primarily focuses on the improvement and further development of the CRISPR/Cas9 system and its components. Any intellectual property developed under the services agreement is owned by Caribou and is included in, and subject to the terms of, our license agreement with Caribou.

In relation to our founding, we issued Caribou 8,110,599 shares of our junior preferred stock. We are paying Caribou $5.0 million over the term of the two-year services agreement; and have agreed to pay 30.0% of Caribou's patent prosecution, filing, and maintenance costs for the intellectual property included in the license agreement amounting to a total of $1.1 million paid through December 31, 2015. We also granted Caribou an exclusive, royalty-free, worldwide license, with the right to sublicense, to any CRISPR/Cas9 patents, patent applications and know-how in Caribou's retained fields of use owned or developed by us between July 16, 2014

and, at least, July 16, 2016. Caribou, which is obligated to pay a portion of our patent filing, prosecution and maintenance costs for any such licensed intellectual property, also has an option to sublicense any CRISPR/Cas9 intellectual property in-licensed by us for uses and activities in its retained field of use.

The Caribou license agreement grants us sublicenses in our field of use to intellectual property in-licensed by Caribou from The Regents of the University of California and the University of Vienna, as well as intellectual property from Wageningen University. Further, under the license agreement, we have an option to sublicense for our field of use any new intellectual property in-licensed by Caribou through, at least, July 16, 2016. In July 2015, we exercised our option to sublicense a portfolio in-licensed by Caribou from Pioneer Hi-Bred International, according to the terms described below.

The term of the Caribou license is until the expiration of the last-to-expire patent right that is licensed to either party. We must use commercially reasonable and diligent efforts to research, develop, manufacture and commercialize at least one product. Either party may terminate the agreement in the event of the other party's uncured material breach, bankruptcy or insolvency-related events, or breach of its obligations with respect to the included in-licenses. The license agreement with Caribou also gives us access, in our field of use, to Caribou internally developed IP. Since March 2013, Caribou has filed over 40 patent applications in the United States and internationally that relate to the CRISPR/Cas platform, including modified and improved CRISPR/Cas9 systems or components, and methods of use that are part of our license. We cannot ensure that these applications will lead to issued claims that cover our products or activities. Any patents that grant from these applications will expire in or after 2034, assuming payment of necessary maintenance fees.

The Regents of the University of California and the University of Vienna IP

The Regents of the University of California and the University of Vienna, which we collectively refer to as UC/Vienna, co-own a worldwide patent portfolio with Dr. Emmanuelle Charpentier that covers methods of use and compositions relating to engineered CRISPR/Cas9 systems for, among other things, cleaving or editing DNA and altering gene product expression, in various organisms, including humans. We refer to this co-owned worldwide patent portfolio as the UC/Vienna/Charpentier patent family. The earliest claimed priority date for this patent family is May 25, 2012. As of March 31, 2016, this family does not yet contain any issued patents in the United States, but claims in one U.S. patent application have been found allowable pending interference proceedings described elsewhere in this prospectus. Any patents that ultimately issue from this family and are appropriately maintained will expire in or after 2033.

Caribou entered into an exclusive, worldwide license in all fields, with the right to sublicense, for this patent family with UC/Vienna in April 2013 under UC/Vienna ownership rights. Caribou's license remains in effect for the life of the last-to-expire patent or last-to-be-abandoned patent application licensed, whichever is later. Through our license agreement with Caribou, we have an exclusive sublicense to UC/Vienna's interest in this foundational CRISPR/Cas9 patent family for use in human therapeutics, except for anti-fungal and anti-microbial uses as defined in the license agreement as our field of use. In certain jurisdictions outside the United States, such as Canada and countries in the EU, there are various limitations on or conditions to the ability of one co-owner to use, assign, license or enforce its patent rights without the consent of all other co-owners. Accordingly, because we do not yet have Dr. Charpentier's consent to our sublicense of the UC/Vienna intellectual property, we may be subject to these limitations in the applicable foreign jurisdictions. In addition, any co-owner from whom we do not yet have a license may raise claims surrounding inventorship or ownership of patents that ultimately issue from this patent family, potentially resulting in issued patents to which we would not have rights our existing license. For products covered by this license and their companion diagnostics, we will owe low single-digit royalties on net sales. In addition, we may be subject to milestone payments of $0.1 million upon the first filing of an investigational new drug application, a total of $0.5 million for Phase II and Phase III clinical trials, $0.5 million to $1.0 million for each of the first three approved new drug applications or biologics license applications in the United States, and $0.2 million for each of the first three approved indications in Europe. Caribou has the right to terminate its agreement with UC/Vienna at any time or the agreement may be terminated due to an uncured material breach. We cannot guarantee that Caribou will maintain the UC/Vienna license for its full term. Should the license between Caribou and UC/Vienna be terminated for

any reason, any compliant Caribou sublicenses as of the termination date will remain in effect and will be assigned to UC/Vienna in place of Caribou. Specifically, if we are in compliance with our obligations under our sublicense and Caribou and UC/Vienna terminate their agreement, we would become UC/Vienna's direct licensee instead of Caribou.

On April 13, 2015, UC/Vienna and Dr. Charpentier jointly filed a request with the United States Patent and Trademarks Office, or USPTO, asking that an interference be declared between the UC/Vienna/Charpentier patent application and certain patents issued to the Broad Institute, Massachusetts Institute of Technology and the President and Fellows of Harvard College, which we collectively refer to as the Broad Institute patent family, that claim aspects of CRISPR/Cas9 systems and methods to edit genes in eukaryotic cells, including human cells. The Broad Institute patent family includes, for example, US 8,697,359, issued on April 15, 2014. The earliest claimed priority date for the Broad Institute patent family is December 12, 2012. On January 11, 2016, the Patent Trial and Appeal Board, or PTAB, of the USPTO declared an interference involving one UC/Vienna/Charpentier application, 12 Broad issued patents and a Broad patent application. The USPTO named the UC/Vienna/Charpentier group as the senior party in the interference. In an interference proceeding, the senior party is presumed to be the first inventor, while the junior party has the burden of proving earlier invention. The initial motions phase of this proceeding may last approximately one year or more. The PTAB could take up to 24 months or more to render a final decision, and its decision may subsequently be appealed to the U.S. Court of Appeals for the Federal Circuit. We cannot guarantee that UC/Vienna and Dr. Charpentier will prevail in the interference proceeding or obtain issued claims generally covering the use of the CRISPR/Cas9 gene editing system in humans.

Pioneer Hi-Bred International (DuPont Company) IP

Pioneer Hi-Bred and its affiliates, including the DuPont Company, have licensed to Caribou on a worldwide basis various patent families relating to CRISPR/Cas systems, components and methods of use generally and CRISPR/Cas9 specifically in certain fields, which include Intellia's field of use under our license agreement with Caribou. In July 2015, we exercised our option under the license agreement with Caribou to sublicense these Pioneer patent families in our field of use. The license from Pioneer to Caribou will expire upon the expiration, abandonment or invalidation of the last patent or patent application licensed from Pioneer to Caribou.

The sublicense is worldwide and royalty-free, with a one-time $0.6 million aggregate milestone payment for activities through Phase III clinical trials for a first therapeutic product and $0.5 million to $1.0 million for each of the first three new drug applications or biologics license applications filed.

The licensed Pioneer portfolio includes a family of applications filed by Vilnius University that discloses the components of a CRISPR/Cas9 system required for gene editing in non-bacterial organisms. Any patents obtained from this family will expire in or after 2033, assuming payment of necessary maintenance fees. We cannot ensure that these applications will lead to issued claims that cover our products or activities.

Wageningen University IP

Our license agreement with Caribou also includes exclusive access to a patent family from the Wageningen University relating to CRISPR/Cas systems, which has been assigned from Wageningen University to Caribou. The family claims priority to a December 30, 2011 application, which discloses various Cas proteins and CRISPR/Cas systems. If we develop and sell a product covered by issued patents in this family, we will owe royalties to each of Wageningen University and Caribou of less than one percent on net sales. We cannot be certain whether patents will issue from these applications that cover our products.

Novartis In-Licensed Intellectual Property

Our December 2014 strategic collaboration and license agreement with Novartis grants us worldwide, non-exclusive, royalty-free rights to a portfolio of 14 Novartis patent families containing pending applications in the United States and internationally relating to LNP compositions, methods of use and modified nucleic acids. The license permits us to use the Novartis LNPs to develop therapeutic, prophylactic, and palliative CRISPR-based *in vivo* products. The earliest claimed priority dates for the licensed patent families range from December 2009

through June 2013, and accordingly will expire by or after December 2030. The term of the license continues until the expiration of the last-to-expire patent right that is licensed to either party. If we attempt to challenge any of the patents in the licensed families, Novartis may terminate the license on a patent-by-patent basis. We cannot guarantee that our products or delivery methods will be covered by issued claims in these families.

In addition, Novartis has also granted us rights to use its proprietary small molecule for HSC expansion. Our rights to this technology are subject to a single-digit royalty based on whether we develop and commercialize the relevant product solely or in collaboration with another third party.

Under our agreement with Novartis, any platform intellectual property developed as part of the collaboration is owned solely by us, while all other intellectual property developed out of the collaboration, including product-based intellectual property, is jointly owned by us and Novartis. We cannot guarantee that intellectual property filed based on collaboration data will result in issued claims covering our products or delivery methods. Under our agreement with Novartis, we have also granted Novartis a sublicense to the intellectual property we license under our agreement with Caribou for the Novartis-selected HSC and CAR T cells products, and *in vivo* products if applicable, with such sublicense being exclusive as long as Novartis uses commercially reasonable efforts to develop and commercialize those products.

Manufacturing

We currently have no commercial manufacturing or cell processing capabilities. We plan to rely on qualified third-party organizations to produce or process bulk compounds, formulated compounds, viral vectors or engineered cells for IND-supporting activities and early stage clinical trials. We expect that commercial quantities of any compound, vector, or engineered cells that we may seek to develop will be manufactured in facilities and by processes that comply with FDA and other regulations. At the appropriate time in the product development process, we will determine whether to establish manufacturing facilities or continue to rely on third parties to manufacture commercial quantities of any products that we may successfully develop.

Competition

The biotechnology industry is extremely competitive in the race to develop new products. While we believe we have significant competitive advantages with our industry-leading expertise in gene editing, clinical development expertise and dominant intellectual property position, we currently face and will continue to face competition for our development programs from companies that use gene editing or gene therapy development platforms and from companies focused on more traditional therapeutic modalities such as small molecules and antibodies. The competition is likely to come from multiple sources, including larger pharmaceutical companies, biotechnology companies and academia. Many of these competitors may have access to greater capital and resources than us. For any products that we may ultimately commercialize, not only will we compete with any existing therapies and those therapies currently in development, we will have to compete with new therapies that may become available in the future.

Competitors in our efforts to provide genetic therapies to patients can be grouped into at least three sets based on their product discovery platforms:

- gene editing companies focused on CRISPR/Cas9 including: CRISPR Therapeutics, Inc., Editas Medicine, Inc. and Tracr Hematology Limited;
- other gene editing companies including: bluebird bio, Inc., Cellectis S.A., Poseida, Inc., Precision BioSciences, Inc., and Sangamo BioSciences, and
- gene therapy companies developing *ex vivo* therapies including: bluebird bio, Inc., Cellectis S.A., and Juno Therapeutics, Inc.

Our competitors will also include companies that are or will be developing other gene editing methods as well as small molecules, biologics and nucleic acid based therapies for the same indications that we are targeting with our CRISPR/Cas9-based therapeutics.

Government Regulation and Product Approval

We are subject to extensive regulation. We expect our future product candidates to be regulated as biologics. Biological products are subject to regulation under the Federal Food, Drug, and Cosmetic Act, or FD&C Act, and the Public Health Service Act, or PHS Act, and other federal, state, local and foreign statutes and regulations. Both the FD&C Act and the PHS Act and their corresponding regulations govern, among other things, the testing, manufacturing, safety, efficacy, labeling, packaging, storage, record keeping, distribution, reporting, advertising and other promotional practices involving biological products. Before clinical testing of biological products in the United States may begin, we must submit an investigational new drug application, or IND, to the FDA, which reviews the clinical protocol, and the IND must become effective before clinical trials may begin. In some instances, we must also submit our protocols to the National Institutes of Health, or NIH, through its Recombinant DNA Advisory Committee, or RAC, for review before initiating clinical testing.

Biologic products must be approved by the FDA before they may be legally marketed in the United States and by the appropriate foreign regulatory agencies before they may be legally marketed in foreign countries. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources and we may not be able to obtain the required regulatory approvals.

Within the FDA, the Center for Biologics Evaluation and Research, or CBER, regulates biologic products. Proposed human clinical trials involving nucleic acid transfer conducted at, or sponsored by, institutions receiving NIH funding for research with recombinant or synthetic nucleic acid molecules are also subject to review by the NIH RAC. Moreover, certain therapeutic protocols that raise important scientific, safety, medical, ethical, or social issues are discussed at the RAC's quarterly public meetings. While the FDA has not provided specific guidance on gene editing in humans, it has published guidance documents related to, among other things, gene therapy products in general, their preclinical assessment, observing subjects involved in gene therapy clinical trials for delayed adverse events, potency testing, and chemistry, manufacturing and control information in gene therapy INDs.

Although the FDA has not yet approved any human gene therapy product for sale, it has provided guidance for the development of gene therapy products which may be relevant to gene editing products as well. For example, the FDA has established the Office of Cellular, Tissue and Gene Therapies, or OCTGT, within CBER, to consolidate the review of gene therapy and related products, and the Cellular, Tissue and Gene Therapies Advisory Committee, or CTGTAC, to advise CBER on its reviews. In addition, the FDA has issued a growing body of clinical, chemistry, manufacturing and control, or CMC, guidance and other guidance, all of which are intended to facilitate industry's development of gene therapy products. In 2012, the European Medicines Agency approved a gene therapy product called Glybera, which is the first gene therapy product approved by regulatory authorities anywhere in the Western world.

Ethical, social and legal concerns about gene-editing technology, gene therapy, genetic testing and genetic research could result in additional regulations restricting or prohibiting the processes we may use. Federal and state agencies, congressional committees and foreign governments have expressed interest in further regulating biotechnology. More restrictive regulations or claims that our products are unsafe or pose a hazard could prevent us from commercializing any product candidates. New government requirements may be established that could delay or prevent regulatory approval of our product candidates under development. It is impossible to predict whether legislative changes will be enacted, regulations, policies or guidance changed, or interpretations by agencies or courts changed, or what the impact of such changes, if any, may be.

U.S. Biological Products Development Process

The FDA approves biologics through the Biologics License Application, or BLA, process before they may be legally marketed in the United States. This process generally involves the following:

- completion of extensive nonclinical, sometimes referred to as preclinical laboratory tests, and preclinical animal studies and applicable requirements for the humane use of laboratory animals and formulation studies in accordance with applicable regulations, including good laboratory practice, or GLP;

- submission to the FDA of an IND application, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials according to the FDA's regulations commonly referred to as good clinical practice, or GCP, and any additional requirements for the protection of human research subjects and their health information, to establish the safety and efficacy of the proposed biological product for its intended use;
- submission to the FDA of a BLA for marketing approval that includes substantive evidence of safety, purity, and potency from results of nonclinical testing and clinical trials;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the biological product is produced to assess compliance with current Good Manufacturing Practice, or cGMP, to assure that the facilities, methods and controls are adequate to preserve the biological product's identity, strength, quality and purity and, if applicable, the FDA's current good tissue practice, or cGTP requirements, for the use of human cellular and tissue products;
- positive results from potential FDA audit of the nonclinical study and clinical trial sites that generated the data in support of the BLA; and
- FDA review and approval, or licensure, of the BLA.

Before testing any biological product candidate in humans, the product candidate enters the preclinical testing stage. Preclinical tests, also referred to as nonclinical studies, include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including GLP.

Where a study involving the transfer of nucleic acids into humans is conducted at, or sponsored by, institutions receiving NIH funding for recombinant DNA research or synthetic nucleic acid molecules, prior to the submission of an IND to the FDA, a protocol and related documentation is submitted to and the study is registered with the NIH Office of Biotechnology Activities, or OBA, pursuant to the NIH Guidelines for Research Involving Recombinant DNA Molecules, or NIH Guidelines. Compliance with the NIH Guidelines is mandatory for investigators at institutions receiving NIH funds for research involving recombinant DNA, however many companies and other institutions not otherwise subject to the NIH Guidelines voluntarily follow them. The NIH is responsible for convening the RAC, a federal advisory committee that reviews research proposals involving human-gene transfer research and discusses, if needed, protocols that raise novel or particularly important scientific, safety or ethical considerations at one of its quarterly public meetings. The RAC decides whether a protocol raises issues that warrant further discussion at its quarterly meetings, and the OBA will notify the FDA of the RAC's decision regarding the necessity for full public review of a particular protocol. RAC proceedings and reports are posted to the OBA web site and may be accessed by the public.

The clinical trial sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. Some preclinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA places the clinical trial on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. With gene therapy protocols, if the FDA allows the IND to proceed, but the RAC decides that full public review of the protocol is warranted, the FDA will request at the completion of its IND review that sponsors delay initiation of the protocol until after completion of the RAC review process. The FDA may also impose clinical holds on a biological product candidate at any time before or during clinical trials due to, among other reasons, safety concerns or non-compliance with regulatory requirements. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such trials.

Clinical trials involve the administration of the biological product candidate to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the study sponsor's control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety, including stopping rules that assure a clinical trial will be stopped if certain adverse events should occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted and monitored in accordance with the FDA's regulations comprising the GCP requirements, including the requirement that all research subjects provide informed consent. Further, each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of study participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. Certain clinical trials also must be reviewed by an institutional biosafety committee, or IBC, a local institutional committee that reviews and all forms of research conducted at that institution involving recombinant or synthetic nucleic acid molecules. The IBC assesses the safety of the research and identifies any potential risk to public health or the environment and ensures that all research is conducted in compliance with NIH Guidelines.

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

- Phase I. The biological product candidate is initially introduced into healthy human subjects and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.
- Phase II. The biological product candidate is evaluated in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance, optimal dosage and dosing schedule.
- Phase III. Clinical trials are undertaken to further evaluate dosage, clinical efficacy, potency, and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the product and provide an adequate basis for product approval and labeling.

Post-approval clinical trials, sometimes referred to as Phase IV clinical trials, may be conducted after initial marketing approval. These clinical trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up. The FDA recommends that sponsors observe subjects for potential gene therapy-related delayed adverse events for a 15-year period, including a minimum of five years of annual examinations followed by ten years of annual queries, either in person or by questionnaire.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA, the NIH and the investigators for serious and unexpected adverse events, any findings from other trials, tests in laboratory animals or *in vitro* testing that suggest a significant risk for human subjects, or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information. Phase I, Phase II and Phase III clinical trials may not be completed successfully within any specified period, if at all. The FDA or the sponsor or its data safety monitoring board may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an

unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the biological product candidate has been associated with unexpected serious harm to patients.

There are also requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries. Sponsors of certain clinical trials of FDA-regulated products, including biologics, are required to register and disclose certain clinical trial information, which is publicly available at www.clinicaltrials.gov. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved.

Human therapeutic products based on gene-editing technology are a new category of therapeutics. Because this is a relatively new and expanding area of novel therapeutic interventions, there can be no assurance as to the length of the study period, the number of patients the FDA will require to be enrolled in the trials in order to establish the safety, purity and potency of human gene editing products, or that the data generated in these trials will be acceptable to the FDA to support marketing approval. The NIH and the FDA have a publicly accessible database, the Genetic Modification Clinical Research Information System, which includes information on gene transfer trials and serves as an electronic tool to facilitate the reporting and analysis of adverse events in these trials.

Concurrent with clinical trials, companies usually complete additional animal trials and must also develop additional information about the physical characteristics of the biological product candidate as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. To help reduce the risk of the introduction of adventitious agents with use of biological products, the PHS Act emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop methods for testing the identity, strength, quality, potency and purity of the final biological product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the biological product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes

After the completion of clinical trials of a biological product candidate, FDA approval of a BLA must be obtained before commercial marketing of the biological product. The BLA must include results of product development, laboratory and animal trials, human trials, information on the manufacture and composition of the product, proposed labeling and other relevant information. In addition, under the Pediatric Research Equity Act, or PREA, a BLA or supplement to a BLA must contain data to assess the safety and effectiveness of the biological product candidate 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 Food and Drug Administration Safety and Innovation Act, or FDASIA, requires that a sponsor who is planning to submit a marketing application for a drug or biological product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan, or PSP, within sixty days after an end-of-Phase 2 meeting or as may be agreed between the sponsor and FDA. The initial PSP must include, among other things, an outline of the pediatric study or studies that the sponsor plans to conduct, including to the extent practicable study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information, along with any other information specified in FDA regulations. The FDA and the sponsor must reach agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from nonclinical studies, early phase clinical trials, or other clinical development programs. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, PREA does

not apply to any biological product for an indication for which orphan designation has been granted. The testing and approval processes require substantial time and effort and there can be no assurance that the FDA will accept the BLA for filing and, even if filed, that any approval will be granted on a timely basis, if at all.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each BLA must be accompanied by a user fee. The FDA adjusts the PDUFA user fees on an annual basis. According to the FDA's fee schedule, effective through September 30, 2016, the user fee for an application requiring clinical data, such as a BLA, is $2,374,200. PDUFA also imposes an annual product fee for biologics ($114,450) and an annual establishment fee ($585,200) on facilities used to manufacture prescription biologics. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

Within 60 days following submission of the application, the FDA reviews a BLA submitted to determine if it is substantially complete before the agency accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the BLA. The FDA reviews the BLA to determine, among other things, whether the proposed product is safe and potent, or effective, for its intended use, and has an acceptable purity profile, and whether the product is being manufactured in accordance with cGMP requirements to assure and preserve the product's identity, safety, strength, quality, potency and purity. The FDA may refer applications for novel biological products or biological products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and 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. During the biological product approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy, or REMS, is necessary to assure the safe use of the biological product candidate. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS; the FDA will not approve the BLA without a REMS, if required.

Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP and, if applicable, cGTP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure that the clinical trials were conducted in compliance with IND study requirements and cGCP requirements. To assure cGMP, cGTP and GCP compliance, an applicant must incur significant expenditure of time, money and effort in the areas of training, record keeping, production, and quality control.

Notwithstanding the submission of relevant data and information, the FDA may ultimately decide that the BLA does not satisfy its regulatory criteria for approval and deny approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data. If the agency decides not to approve the BLA in its present form, the FDA will issue a complete response letter that usually describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, challenge the determination set forth in the letter by requesting a hearing or withdraw the application.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. The FDA may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a REMS, or otherwise limit the scope of any approval. In addition, the FDA may

require post marketing clinical trials, sometimes referred to as Phase IV clinical trials, designed to further assess a biological product's safety and effectiveness, and testing and surveillance programs to monitor the safety of approved products that have been commercialized.

One of the performance goals agreed to by the FDA under the PDUFA is to review 90% of standard BLAs in 10 months from the filing date and 90% of priority BLAs in six months from the filing date, whereupon a review decision is to be made. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs and its review goals are subject to change from time to time. The review process and the PDUFA goal date may be extended by three months if the FDA requests or the BLA sponsor otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

Orphan Drug Designation

The FDA may grant Orphan Drug Designation to drugs intended to treat a rare disease or condition that affects fewer than 200,000 individuals in the United States, or if it affects more than 200,000 individuals in the United States, there is no reasonable expectation that the cost of developing and marketing the drug for this type of disease or condition will be recovered from sales in the United States. Orphan product designation must be requested before submitting a BLA. After the FDA grants orphan product designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process

In the United States, Orphan Drug Designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. In addition, if a product receives the first FDA approval for the indication for which it has orphan designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority over the product with orphan exclusivity or where the manufacturer with orphan exclusivity is unable to assure sufficient quantities of the approved orphan designated product. Competitors, however, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity and then used off-label. Orphan product exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval of the same biological product as defined by the FDA or if our product candidate is determined to be contained within the competitor's product for the same indication or disease. If a drug or biological product designated as an orphan product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan product exclusivity.

Expedited Development and Review Programs

The FDA has a Fast Track program that is intended to expedite or facilitate the process for reviewing new biological products that meet certain criteria. Specifically, new biological products are eligible for Fast Track designation if they are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a new biologic may request that the FDA designate the biologic as a Fast Track product at any time during the clinical development of the product, but ideally not later than the pre-BLA meeting. The FDA may consider for review sections of the marketing application 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 application, the FDA agrees to accept sections of the application and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the application.

Any product submitted to the FDA for marketing, including under a Fast Track program, may be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. Any product is eligible for priority review if it treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness of the treatment, prevention, or diagnosis of

that condition. The FDA will attempt to direct additional resources to the evaluation of an application for a new biological product designated for priority review in an effort to facilitate the review. Additionally, a product may be eligible for accelerated approval. Biological 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, which means that they may be approved on the basis of adequate and well-controlled clinical trials establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict a clinical benefit, or on the basis of an effect on a clinical endpoint other than survival or 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 that a sponsor of a biological product subject to accelerated approval perform adequate and well-controlled post-marketing clinical trials. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Fast Track designation, priority review and accelerated approval do not change the standards for approval but may expedite the development or approval process.

In addition, under the provisions of the Food and Drug Administration Safety and Innovation Act of 2012, or FDASIA, the FDA established a Breakthrough Therapy Designation, which is intended to expedite the development and review of products that treat serious or life-threatening diseases or conditions. 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. The designation includes all of the features of Fast Track designation, as well as more intensive FDA interaction and guidance. The Breakthrough Therapy Designation is a distinct status from both accelerated approval and priority review, but these can also be granted to the same product candidate if the relevant criteria are met. 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. All requests for breakthrough therapy designation will be reviewed within 60 days of receipt, and FDA will either grant or deny the request.

Fast Track designation, priority review, accelerated approval and breakthrough therapy designation do not change the standards for approval but may expedite the development or approval process. Where applicable, we plan to request Fast Track and Breakthrough Therapy Designation for our product candidates. Even if we receive one or both of these designations for our product candidates, the FDA may later decide that our product candidates no longer meets the conditions for qualification. In addition, these designations may not provide us with a material commercial advantage.

Post-Approval Requirements

Maintaining substantial compliance with applicable federal, state, and local statutes and regulations requires the expenditure of substantial time and financial resources. Rigorous and extensive FDA regulation of biological products continues after approval, particularly with respect to cGMP requirements. We will rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of any products that we may commercialize. Manufacturers of our products are required to comply with applicable requirements in the cGMP regulations, including quality control and quality assurance and maintenance of records and documentation. Other post-approval requirements applicable to biological products, include reporting of cGMP deviations that may affect the identity, potency, purity and overall safety of a distributed product, record-keeping requirements, reporting of adverse effects, reporting updated safety and efficacy information, and complying with electronic record and signature requirements. After a BLA is approved, the product also may be subject to official lot release. As part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official release by the FDA, the manufacturer submits samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot. The FDA also may perform certain confirmatory tests on lots of some products, such as

viral vaccines, before releasing the lots for distribution by the manufacturer. In addition, the FDA conducts laboratory research related to the regulatory standards on the safety, purity, potency, and effectiveness of biological products.

We also must comply with the FDA's advertising and promotion requirements, such as those related to direct-to-consumer advertising, the prohibition on promoting products for uses or in patient populations that are not described in the product's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities, and promotional activities involving the internet and social media platforms. Discovery of previously unknown problems or the failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. 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 or manufacturer to administrative or judicial civil or criminal sanctions and adverse publicity. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

Biological product manufacturers and other entities involved in the manufacture and distribution of approved biological products are required to register their establishments with the FDA and certain other federal and state agencies, and are subject to periodic unannounced inspections by the FDA and certain other federal and state agencies for compliance with cGMP requirements and other laws. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved BLA, including withdrawal of the product from the market. In addition, changes to the manufacturing process or facility generally require prior FDA approval before being implemented and other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

U.S. Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of the FDA approval of the use of our product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved biological product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent within a 60 day period from the date the product is first approved for commercial marketing. The U.S. PTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may intend to apply for restoration of patent term for one of our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA. However, there can be no assurance that any such extension will be granted to us.

Biosimilars and Exclusivity

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the Affordable Care Act, signed into law on March 23, 2010, includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA, which created an

abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. To date, only one biosimilar has been licensed under the BPCIA, although numerous biosimilars have been approved in Europe. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars.

Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency, can be shown through analytical studies, animal studies, and a clinical trials or studies. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product in any given patient and, for products that are administered multiple times to an individual, the biologic and the reference biologic may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. However, complexities associated with the larger, and often more complex, structures of biological products, as well as the processes by which such products are manufactured, pose significant hurdles to implementation of the abbreviated approval pathway that are still being worked out by the FDA.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. "First licensure" typically means the initial date the particular product at issue was licensed in the United States. Date of first licensure does not include the date of licensure of (and a new period of exclusivity is not available for) a biological product if the licensure is for a supplement for the biological product or for a subsequent application by the same sponsor or manufacturer of the biological product (or licensor, predecessor in interest, or other related entity) for a change (not including a modification to the structure of the biological product) that results in a new indication, route of administration, dosing schedule, dosage form, delivery system, delivery device or strength, or for a modification to the structure of the biological product that does not result in a change in safety, purity, or potency. Therefore, one must determine whether a new product includes a modification to the structure of a previously licensed product that results in a change in safety, purity, or potency to assess whether the licensure of the new product is a first licensure that triggers its own period of exclusivity. Whether a subsequent application, if approved, warrants exclusivity as the "first licensure" of a biological product is determined on a case-by-case basis with data submitted by the sponsor.

During the 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed "interchangeable" by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law.

A biological product can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued "Written Request" for such a study.

The BPCIA is complex and only beginning to be interpreted and implemented by the FDA. In addition, recent government proposals have sought to reduce the 12-year reference product exclusivity period. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. As a result, the ultimate impact, implementation, and meaning of the BPCIA is subject to significant uncertainty.

Additional Regulation

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, affect our business. These and other laws govern our use, handling and

disposal of various biological, chemical and radioactive substances used in, and wastes generated by, our operations. If our operations result in contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and governmental fines. We believe that we are in material compliance with applicable environmental laws and that continued compliance therewith will not have a material adverse effect on our business. We cannot predict, however, how changes in these laws may affect our future operations.

U.S. Foreign Corrupt Practices Act

The U.S. Foreign Corrupt Practices Act, to which we are subject, prohibits corporations and individuals from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity. It is illegal to pay, offer to pay or authorize the payment of anything of value to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity.

Government Regulation Outside of the United States

In addition to regulations in the United States, we will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical studies and any commercial sales and distribution of our products. Because biologically sourced raw materials are subject to unique contamination risks, their use may be restricted in some countries.

Whether or not we obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical studies or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical study application much like the IND prior to the commencement of human clinical studies.

The requirements and process governing the conduct of clinical studies, product licensing, pricing and reimbursement vary from country to country. In all cases, the clinical studies are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

Similar to the United States, the various phases of pre-clinical and clinical research in the European Union are subject to significant regulatory controls. Although the EU Clinical Trials Directive 2001/20/EC has sought to harmonize the EU clinical trials regulatory framework, setting out common rules for the control and authorization of clinical trials in the EU, the EU Member States have transposed and applied the provisions of the Directive differently. This has led to significant variations in the Member State regimes. To improve the current system, a new Regulation No. 536/2014 on clinical trials on medicinal product candidates for human use, which will repeal Directive 2001/20/EC, was adopted on April 16, 2014 and published in the European Official Journal on May 27, 2014. The new Regulation aims at harmonizing and streamlining the clinical trials authorization process, simplifying adverse event reporting procedures, improving the supervision of clinical trials, and increasing their transparency. The new Regulation entered into force on June 16, 2014 but will apply not earlier than May 28, 2016. Until then the Clinical Trials Directive 2001/20/EC will continue to apply. In addition, the transitional provisions of the new Regulation offer, under certain conditions, the clinical trial sponsors the possibility to choose between the requirements of the Directive and the Regulation for a limited amount of time.

Under the current regime, before a clinical trial can be initiated it must be approved in each of the EU Member States where the trial is to be conducted by two distinct bodies: the National Competent Authority, or NCA, and one or more Ethics Committees, or ECs. Under the current regime all suspected unexpected serious adverse reactions, or SUSARs, to the investigational product that occur during the clinical trial have to be reported to the NCA and ECs of the Member State where they occurred.

In the EU, gene therapy medicinal products can only be commercialized after obtaining a Community Marketing Authorization, or Community MA. The Community MA is issued by the European Commission through the so-called Centralized Procedure, based on the opinion of the Committee for Medicinal Products for Human Use, or CHMP, of the European Medicines Agency, or EMA, and which is valid throughout the entire

territory of the EU. The Centralized Procedure is mandatory for certain types of products, such as biotechnology medicinal products, orphan medicinal products, and medicinal products containing a new active substance indicated for the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, auto-immune and viral diseases. The Centralized Procedure is also mandatory for so-called Advance Therapy Medicinal Products (or ATMPs). ATMPs comprise gene therapy, somatic cell and tissue engineered products. The Centralized Procedure is optional for products containing a new active substance not yet authorized in the EU as of November 20, 2005, or for products that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the EU.

Under the Centralized Procedure, the CHMP serves as the scientific committee that renders opinions about the safety, efficacy and quality of human products on behalf of the EMA. The CHMP is composed of experts nominated by each Member State's national drug authority, with one of them appointed to act as Rapporteur for the co-ordination of the evaluation with the possible assistance of a further member of the Committee acting as a Co-Rapporteur. The CHMP has 210 days to adopt an opinion as to whether a marketing authorization should be granted. The process usually takes longer as additional information is requested, which triggers clock-stops in the procedural timelines. Based on the CHMP's opinion the European Commission will adopt a decision on the granting of the marketing authorization. In case of ATMPs, the EMA's Committee for Advanced Therapies, a multidisciplinary committee of experts on ATMPs, will prepare a draft opinion that will be submitted to the CHMP before the latter adopts its final opinion. Under the above described procedure, before granting the MA, the EMA makes an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

In the EU, new products authorized for marketing (i.e., reference products) qualify for eight years of data exclusivity and an additional two years of market exclusivity upon marketing authorization. The data exclusivity period prevents generic applicants from relying on the preclinical and clinical trial data contained in the dossier of the reference product when applying for a generic marketing authorization in the EU during a period of eight years from the date on which the reference product was first authorized in the EU. The market exclusivity period prevents a successful generic applicant from commercializing its product in the EU until ten years have elapsed from the initial authorization of the reference product in the EU. The ten-year market exclusivity period can be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications, which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies.

The EU also provides other opportunities for market exclusivity. For example, products receiving orphan designation in the EU can receive ten years of market exclusivity, during which time no similar medicinal product for the same indication may be placed on the market. An orphan product can also obtain an additional two years of market exclusivity in the EU for pediatric studies.

The criteria for designating an "orphan medicinal product" in the European Union are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, a medicinal product may be designated as orphan if (1) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; (2) either (a) such condition affects no more than five in 10,000 persons in the European Union when the application is made, or (b) the product, without the benefits derived from orphan status, would not generate sufficient return in the European Union to justify investment; and (3) there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the European Union, or if such a method exists, the product will be of significant benefit to those affected by the condition, as defined in Regulation (EC) 847/2000. Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers and are, upon grant of a marketing authorization, entitled to ten years of market exclusivity for the approved therapeutic indication. The application for orphan drug designation must be submitted before the application for marketing authorization. The applicant will receive a fee reduction for the marketing authorization application if the orphan drug designation has been granted, but not if the designation is still pending at the time the marketing authorization is submitted. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

The 10-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. Additionally, marketing authorization may be granted to a similar product for the same indication at any time if:

- The second applicant can establish that its product, although similar, is safer, more effective or otherwise clinically superior;
- The applicant consents to a second orphan medicinal product application; or
- The applicant cannot supply enough orphan medicinal product.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Other Healthcare Laws

In addition to FDA restrictions on marketing of pharmaceutical and biological products, other U.S. federal and state healthcare regulatory laws restrict business practices in the pharmaceutical industry, which include, but are not limited to, state and federal anti-kickback, false claims, data privacy and security, and physician payment transparency laws.

The federal Anti-Kickback Statute prohibits, among other things, any person or entity from knowingly and willfully offering, paying, soliciting, receiving or providing any remuneration, directly or indirectly, overtly or covertly, to induce or in return for purchasing, leasing, ordering, or arranging for or recommending the purchase, lease, or order of any item or service reimbursable, in whole or in part, under Medicare, Medicaid or other federal healthcare programs. The term "remuneration" has been broadly interpreted to include anything of value. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, the exceptions and safe harbors are drawn narrowly. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases, or recommendations may be subject to scrutiny if they do not meet the requirements of a statutory or regulatory exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all its facts and circumstances. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated.

Additionally, the intent standard under the Anti-Kickback Statute was amended by the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, collectively the Affordable Care Act, to a stricter standard such that 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. In addition, the Affordable Care Act codified case law that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act. The majority of states also have anti-kickback laws, which establish similar prohibitions and in some cases may apply to items or services reimbursed by any third-party payor, including commercial insurers.

The federal false claims and civil monetary penalties laws, including the civil False Claims Act, prohibit any person or entity from, among other things, knowingly presenting, or causing to be presented, a false, fictitious or fraudulent claim for payment to, or approval by, the federal government or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. A claim includes "any request or demand" for money or property presented to the U.S. government. Actions under the civil False Claims Act may be brought by the Attorney General or as a qui tam action by a private individual in the name of the government. Violations of the civil False Claims Act can result in very significant monetary

penalties and treble damages. Several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies' marketing of products for unapproved (e.g., off-label) uses. In addition, the civil monetary penalties statute imposes penalties against any person who is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. Many states also have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Given the significant size of actual and potential settlements, it is expected that the government authorities will continue to devote substantial resources to investigating healthcare providers' and manufacturers' compliance with applicable fraud and abuse laws.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created additional federal criminal statutes that prohibit, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the U.S. federal Anti-Kickback Statute, the Affordable Care Act broadened the reach of certain criminal healthcare fraud statutes created under HIPAA by amending the intent requirement such that 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.

In addition, there has been a recent trend of increased federal and state regulation of payments made to physicians and certain other healthcare providers. The Affordable Care Act imposed, among other things, new annual reporting requirements through the Physician Payment Sunshine Act for covered manufacturers for certain payments and "transfers of value" provided to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Failure to submit timely, accurately and completely the required information for all payments, transfers of value and ownership or investment interests may result in civil monetary penalties of up to an aggregate of $150,000 per year and up to an aggregate of $1 million per year for "knowing failures." Covered manufacturers were required to begin collecting data on August 1, 2013 and submit reports on aggregate payment data to the government for the first reporting period (August 1, 2013 – December 31, 2013) by March 31, 2014, and were required to report detailed payment data for the first reporting period and submit legal attestation to the completeness and accuracy of such data by June 30, 2014. Thereafter, covered manufacturers must submit reports by the 90th day of each subsequent calendar year. In addition, certain states require implementation of compliance programs and compliance with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, impose restrictions on marketing practices, or tracking and reporting of gifts, compensation and other remuneration or items of value provided to physicians and other healthcare professionals and entities.

We may also be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their respective implementing regulations, including the Final HIPAA Omnibus Rule published on January 25, 2013, impose specified requirements relating to the privacy, security and transmission of individually identifiable health information held by covered entities and their business associates. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to "business associates," defined as independent contractors or agents of covered entities that create, receive, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's

fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same requirements, thus complicating compliance efforts.

If our operations are found to be in violation of any of such laws or any other governmental regulations that apply to us, we may be subject to penalties, including, without limitation, administrative, civil and criminal penalties, damages, fines, disgorgement, contractual damages, reputational harm, diminished profits and future earnings, the curtailment or restructuring of our operations, exclusion from participation in federal and state healthcare programs and individual imprisonment, any of which could adversely affect our ability to operate our business and our financial results.

To the extent that any of our product candidates, once approved, are sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or other transfers of value to healthcare professionals.

Coverage and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical or biological product for which we obtain regulatory approval. In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products. Sales of any products for which we receive regulatory approval for commercial sale will therefore depend, in part, on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government authorities, managed care providers, private health insurers and other organizations.

The process for determining whether a third-party payor will provide coverage for a pharmaceutical or biological product typically is separate from the process for setting the price of such product or for establishing the reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the FDA-approved products for a particular indication. A decision by a third-party payor not to cover our product candidates could reduce physician utilization of our products once approved and have a material adverse effect on our sales, results of operations and financial condition. Moreover, a third-party payor's decision to provide coverage for a pharmaceutical or biological product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. Additionally, coverage and reimbursement for new products can differ significantly from payor to payor. One third-party payor's decision to cover a particular medical product or service does not ensure that other payors will also provide coverage for the medical product or service, or will provide coverage at an adequate reimbursement rate. As a result, the coverage determination process will require us to provide scientific and clinical support for the use of our products to each payor separately and will be a time-consuming process.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of pharmaceutical or biological products have been a focus in this effort. Third-party payors are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost-effectiveness of pharmaceutical products, biological products, medical devices and medical services, in addition to questioning safety and efficacy. If these third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products after FDA approval or, if they do, the level of payment may not be sufficient to allow us to sell our products at a profit.

Healthcare Reform

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of

reimbursement for particular medical products. By way of example, in the United States, the Medicare Prescription Drug Improvement and Modernization Act of 2003, or MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for outpatient drug purchases by those covered by Medicare under a new Part D and introduced a new reimbursement methodology based on average sales prices for Medicare Part B physician-administered drugs. As a result of this legislation and the expansion of federal coverage of pharmaceutical products, there is additional pressure to contain and reduce costs. While the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates, and any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors. These cost reduction initiatives and other provisions of the MMA could decrease the coverage and reimbursement that we receive for any approved products, and could seriously harm our business.

In addition, in March 2010, the Affordable Care Act was enacted, which, among other things, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, introduced 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, extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care plans, imposed mandatory discounts for certain Medicare Part D beneficiaries as a condition for manufacturers' outpatient drugs coverage under Medicare Part D, and subjected drug manufacturers to new annual fees based on pharmaceutical companies' share of sales to federal healthcare programs.

On August 2, 2011, the Budget Control Act of 2011 created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This included aggregate reductions of Medicare payments to providers of up to 2% per fiscal year, which went into effect on April 1, 2013 and will stay in effect through 2024 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals and imaging centers.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our products once approved or additional pricing pressures.

Employees

As of March 31, 2016, we had 61 full-time employees, 44 of whom were primarily engaged in research and development activities and 26 of whom have an M.D. or Ph.D. degree.

Facilities

Our headquarters are located in Cambridge, Massachusetts, where we lease approximately 15,200 square feet of office and laboratory space. Our lease expires in January 2020, and we have an option to extend it through January 2025.

In January 2016, we entered into a ten-year agreement to lease approximately 65,000 square feet of office and laboratory space in Cambridge, which we expect to occupy as our headquarters near the end of 2016. We believe that this new office and laboratory space is sufficient to meet our needs for the foreseeable future and that suitable additional space will be available as and when needed.

Legal Proceedings

We are not currently a party to any material legal proceedings.

One United States patent application licensed to us by Caribou is subject to a patent interference proceeding between UC/Vienna and Dr. Emmanuelle Charpentier, on the one hand, and the Broad Institute, MIT and

Harvard on the other hand. See the section entitled “Intellectual Property—Caribou Biosciences In-Licensed Intellectual Property—University of California, Berkeley and University of Vienna IP” appearing elsewhere in this prospectus for more information regarding this patent interference proceeding.

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 April 25, 2016:

Name	Age	Position
Nessan Bermingham, Ph.D	43	Founder, President, Chief Executive Officer and Director
Thomas M. Barnes, Ph.D	56	Chief Scientific Officer
John M. Leonard, M.D	58	Chief Medical Officer and Director
David V. Morrissey, Ph.D	58	Chief Technology Officer
José E. Rivera, J.D	50	Chief Operating Officer and Chief Legal Officer
Sapna Srivastava, Ph.D	45	Chief Financial and Strategy Officer
Caroline Dorsa(1)(2)(3)	56	Director
Jean-François Formela, M.D.(1)(2)(3)	59	Director
Carl L. Gordon, Ph.D.(1)(2)	51	Director
Rachel Haurwitz, Ph.D	30	Director
Perry Karsen(2)(3)	61	Director, Chairman of the Board of Directors

(1) Member of the audit committee
(2) Member of the compensation committee
(3) Member of the nominating and corporate governance committee

Nessan Bermingham, Ph.D., has served as our President, Chief Executive Officer and director since he founded the company in May 2014. Prior to founding Intellia, from 2002 to 2007 and 2012 to 2014 Dr. Bermingham held various positions at Atlas Venture, an early stage venture capital firm focused on investments in biological and drug discovery technologies, most recently as venture partner. From 2007 to 2008, he was a partner at Omega Fund Management, a direct secondary healthcare fund, and from 2009 to 2013, he served as the founder and managing partner of Bio Equity Capital LLC, a healthcare focused special situations firm. Dr. Bermingham was the founding Chief Executive Officer of Tal Medical, a clinical stage medical device company, previously worked at UBS AG and sits on the independent advisory board of Merck Serono and on the board of directors of Harbor Antibodies. Dr. Bermingham received his B.S. from Queen's University in Belfast, Northern Ireland, a Ph.D. in molecular biology from Imperial College London and was a Howard Hughes Associate Fellow at Baylor College of Medicine. We believe that Dr. Bermingham's detailed knowledge of our company and his over 15 years in the life sciences industry, provide a valuable contribution to our board of directors.

Thomas M. Barnes, Ph.D., has served as our Chief Scientific Officer since October 2014. Prior to joining Intellia, from 2013 to 2014, Dr. Barnes served as Principal at Barnes Consulting, a consulting company he founded, and from April 2009 to 2013, he was Vice President of Discovery at Eleven Biotherapeutics Inc., a biotechnology company. From 2008 to 2009, Dr. Barnes was the chief executive officer of Tengri Therapeutics, Inc., a biotechnology company. From 2004 to 2008, he held positions of increasing responsibility, including Senior Vice President and site head of the drug repositioning division of Ore Pharmaceuticals, Inc., a biopharmaceutical company. Prior to that Dr. Barnes was at Millennium Pharmaceuticals, a biotechnology company in Cambridge, Massachusetts, which is now a wholly owned subsidiary of Takeda Pharmaceutical Company Limited, where he held positions of increasing responsibility, including Director, Genomic Pharmacology from 1997 to 2004. Dr. Barnes received his B.Sc. in genetics from the University of Sydney in Australia, a Ph.D. in genetics from Cambridge University and completed research fellowships at Harvard Medical School and McGill University.

John M. Leonard, M.D., has served as our Chief Medical Officer since July 2014. Prior to joining Intellia, Dr. Leonard was Chief Scientific Officer and Senior Vice President of Research & Development at AbbVie, Inc., or AbbVie, a biopharmaceutical company, from its spin-out from Abbott Laboratories in January 2013 until retiring at the end of 2013. Prior to the formation of AbbVie, from 2008 to 2012, he was Global Head of Pharmaceutical R&D at Abbott Laboratories, or Abbott, a pharmaceuticals and health care products company. Dr. Leonard has over 30 years of combined experience in medicine, research and management serving in various roles at Abbott beginning in 1992. In addition to the board of directors of Intellia, Dr. Leonard has served on the boards of Quintiles Transnational Holdings Inc., a biopharmaceutical development and commercial outsourcing service, since February 2015, Chimerix, Inc. a biopharmaceutical company, since June 2014 and Vitae Pharmaceuticals, Inc., a biotechnology company, since July 2015. He received a B.A. in biochemistry from the University of Wisconsin at Madison and an M.D. from Johns Hopkins University. Dr. Leonard completed his residency in internal medicine at Stanford University School of Medicine followed by a postdoctoral fellowship in molecular virology at the National Institute of Allergy and Infectious Diseases at the National Institutes of Health. We believe that Dr. Leonard's extensive experience in drug development and the biopharmaceutical industry provides him with the qualifications and skills to serve as a director of our company.

David V. Morrissey, Ph.D., has served as our Chief Technology Officer since July 2014. Prior to joining Intellia, Dr. Morrissey was an executive director at the Novartis Institutes for BioMedical Research, Inc., a biopharmaceutical company, from 2007 to 2014 where he helped establish and head its RNAi therapeutics unit. Prior to Novartis, Dr. Morrissey was the Senior Director of Antiviral Therapeutics at Sirna Therapeutics, Inc. a biotechnology company, from 2005 to 2007. He received his B.S. in biology from Clark University, an M.S. in microbiology from The University of Connecticut, a Ph.D. in biology from Wesleyan University and completed his postdoctoral fellowship at Bristol-Myers Squibb.

José E. Rivera, J.D., has served as our Chief Operating Officer and Chief Legal Officer since April 2015. He joined Intellia in July 2014 as our General Counsel and Chief Talent Officer. Prior to joining Intellia, Mr. Rivera was the Vice President, Chief Ethics and Compliance Officer at AbbVie from its spin-out from Abbott in January 2013 until September 2013. Prior to that, from 1996 to 2012, Mr. Rivera led various legal groups at Abbott as Division Vice President and Associate General Counsel, including the company's intellectual property litigation, legal regulatory and general litigation departments. Mr. Rivera received his B.A. in economics from Boston College and his J.D. from Harvard Law School.

Sapna Srivastava, Ph.D., has served as Chief Financial and Strategy Officer since April 2015. Prior to joining Intellia, from 2012 to 2015, Dr. Srivastava served as an independent strategy advisor to various therapeutic-focused biotechnology companies and co-founded a neuroscience-focused biotechnology company. Prior to that, from 2010 to 2012, she served as a senior analyst and team leader of the biotechnology group at Goldman Sachs, and from 2004 to 2009, she served as a senior biotechnology analyst at Morgan Stanley. She also served as a principal and senior biotechnology analyst at ThinkEquity Partners, LLC from 2003 to 2004. She started her career at J.P. Morgan in 1999. Dr. Srivastava received her B.Sc. from the University of Bombay in India and a Ph.D. in neuroscience from New York University Medical Center.

Caroline Dorsa has served as a member of our board of directors since December 2015. Since 2010, Ms. Dorsa has served as a director with Biogen Inc. Ms. Dorsa served as the Executive Vice President and Chief Financial Officer of Public Service Enterprise Group Incorporated, a diversified energy company, from April 2009 to October 2015 and served on its board of directors from 2003 to April 2009. From February 2008 to April 2009, she served as Senior Vice President, Global Human Health, Strategy and Integration at Merck & Co., Inc., a pharmaceutical company. From November 2007 to January 2008, Ms. Dorsa served as Senior Vice President and Chief Financial Officer of Gilead Sciences, Inc., a life sciences company. From February 2007 to November 2007, she served as Senior Vice President and Chief Financial Officer of Avaya, Inc., a telecommunications company. From 1987 to January 2007, Ms. Dorsa held various financial and operational positions at Merck & Co., Inc., including Vice President and Treasurer, Executive Director of U.S. Customer Marketing and Executive Director of U.S. Pricing and Strategic Planning. Ms. Dorsa received her B.A. in history from Colgate University and her M.B.A. from Columbia University. We believe Ms. Dorsa's operational, financial and accounting expertise and knowledge of the pharmaceutical industry provide her with the qualifications and skills to serve as a director of our company.

Jean-Francois Formela, M.D., has served as a member of our board of directors since our founding in May 2014. Dr. Formela is currently a partner in the life sciences group of Atlas Venture and has served in such capacity since joining Atlas Venture in 1993. Since September 2010, Dr. Formela has served as a director of Egalet Corporation, a publicly-traded biopharmaceutical company, of which he was a co-founder, and where he served as chairman of the board from March 2012 to June 2015. Dr. Formela has served on the boards of RaNA Therapeutics, Inc. and Spero Therapeutics, Inc., since 2011 and 2014, respectively. He was also a founder and previously served as chairman of the board of each these companies. He also serves on the board of directors of the following privately held companies: F-star Biotechnology Limited, Navitor Pharmaceuticals, Inc. and Ataxion Therapeutics, Inc. Within the last five years, Dr. Formela has also served on the boards of directors of the following public companies: Horizon Pharma, Inc., ARCA biopharma, Inc. and Achillion Pharmaceuticals, Inc. Prior to joining Atlas Venture, Dr. Formela served as a senior director of medical marketing and scientific affairs at Schering-Plough Corporation, a pharmaceutical company which merged with Merck & Co., Inc. Dr. Formela began his career as a medical doctor and practiced emergency medicine at Necker University Hospital in Paris. Dr. Formela is a member of the Massachusetts General Hospital Research Advisory Council. He received his M.D. from the Paris University School of Medicine and his M.B.A. from Columbia University. We believe Dr. Formela's experience in the life sciences industry, as well as his practice of medicine, provides him with the qualifications and skills to serve as a director of our company.

Carl L. Gordon, Ph.D., has been a member of our board of directors since August of 2015. Dr. Gordon co-founded OrbiMed Advisors LLC, or OrbiMed, an investment firm focused on the healthcare sector, in 1998 and, since that time, has served as a member and Co-Head of Private Equity. Prior to co-founding OrbiMed, Dr. Gordon was a senior biotechnology analyst at Mehta and Isaly, a pharmaceutical consulting firm and predecessor to OrbiMed, from 1995 to 1997. From 1993 to 1995, Dr. Gordon was a fellow at The Rockefeller University. He received his Ph.D. in Molecular Biology from the Massachusetts Institute of Technology and a bachelor's degree from Harvard College. As a venture capitalist focused on life science companies Dr. Gordon sits on numerous boards, including Adicet Bio, Inc., Adimab, LLC, Alector, LLC, Armo Biosciences, Inc., Arsanis Biosciences, Inc., Compass Therapeutics, Inc., Good Start Genetics, Inc., Igenica, Inc., Oric Pharmaceuticals, Inc., Oxford Development, Selecta Biosciences, Inc., Singulex, Inc., and True North Therapeutics, Inc. In the last five years, he has also served on the boards of Acceleron Pharma, Inc., Acerta Pharma, LLC, ACIR Biosciences, Inc., Amarin Corporation plc, Pacira Pharmaceuticals, Inc. and Seragon Pharmaceuticals, Inc. We believe that Dr. Gordon's financial and operational experience in the biotechnology industry as well as his expertise in molecular biology and financial credentials provide him with the qualifications and skills to serve as a director of our company.

Rachel Haurwitz, Ph.D., has been a member of our board of directors since the company's founding in May 2014. Dr. Haurwitz is the President, Chief Executive Officer and a member of the board of directors of Caribou Biosciences which she co-founded in 2012. Dr. Haurwitz received an A.B. in biological science from Harvard College and a Ph.D. in molecular and cell biology from the University of California, Berkeley. We believe that Dr. Haurwitz's experience in CRISPR/Cas9 development and research provides her with the qualifications and skills to serve as a director of our company.

Perry Karsen has served as the chairman of our board of directors since April 2016. From May 2013 to December 2015, Mr. Karsen served as the Chief Executive Officer of the Celgene Cellular Therapeutics division of Celgene Corporation, a global biopharmaceutical company. Mr. Karsen served as Chief Operations Officer and Executive Vice President of Celgene from July 2010 to May 2013, and as Senior Vice President and Head of Worldwide Business Development of Celgene from 2004 to 2009. Between February 2009 and July 2010, Mr. Karsen was Chief Executive Officer of Pearl Therapeutics, Inc., a privately held biotechnology company that was subsequently acquired by AstraZeneca plc. Prior to his tenure with Celgene, Mr. Karsen held executive positions at Human Genome Sciences, Inc., a biopharmaceutical company subsequently acquired by GlaxoSmithKline, Bristol-Myers Squibb Co., a biopharmaceutical company, Genentech, Inc., a member of the Roche Group, and Abbott. In addition, Mr. Karsen previously served as a general partner at Pequot Ventures, a venture capital firm. He currently serves on the board of directors of Agios Pharmaceuticals, Inc., OncoMed Pharmaceuticals, Inc. and Voyager Therapeutics, Inc. as well as the Gladstone Foundation and the Sonoma Land Trust. He is a past

member of the board of directors of and currently a member of the executive committee of the Biotechnology Innovation Organization and the board of directors of the Alliance for Regenerative Medicine. Mr. Karsen received a masters of management degree from Northwestern University's Kellogg Graduate School of Management, a masters of arts in teaching of biology from Duke University and a B.S. in biological sciences from the University of Illinois, Urbana-Champaign. We believe Mr. Karsen's executive leadership experience, including his experience as an executive at large multi-national pharmaceutical companies and membership on boards of various trade organizations, qualifies him to serve as a member of our board of directors.

Composition of Our Board of Directors

As of April 22, 2016, our board of directors consisted of seven members, each of whom are members pursuant to the board composition provisions of our certificate of incorporation and agreements with our stockholders. These board composition provisions will terminate upon the completion of this offering. Upon the termination of these provisions, there will be no further contractual obligations regarding the election of our directors. Our nominating and corporate governance committee and our board of directors may therefore consider a broad range of factors relating to the qualifications and background of nominees. Our nominating and corporate governance committee's and our board of directors' priority in selecting board members is identification of persons who will further the interests of our stockholders through their established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business, understanding of the competitive landscape, professional and personal experiences and expertise relevant to our growth strategy. Our directors hold office until their successors have been elected and qualified or until the earlier of their resignation or removal. Our amended and restated certificate of incorporation that will become effective upon the closing of this offering and amended and restated bylaws that will become effective upon the effectiveness of the registration statement of which this prospectus is a part also provide that our directors may be removed only for cause by the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

Director Independence

Our board of directors has determined that all members of the board of directors, except Drs. Bermingham, Leonard and Haurwitz, are independent directors, including for purposes of the rules of The NASDAQ Global Market and the Securities and Exchange Commission, or SEC. In making such independence determination, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director. In considering the independence of the directors listed above, our board of directors considered the association of our directors with the holders of more than 5% of our common stock. Upon the completion of this offering, we expect that the composition and functioning of our board of directors and each of our committees will comply with all applicable requirements of The NASDAQ Global Market and the rules and regulations of the SEC. There are no family relationships among any of our directors or executive officers. Drs. Bermingham and Leonard are not independent directors under these rules because they are executive officers of the Company and Dr. Haurwitz is not an independent director under these rules because of her affiliation with Caribou.

Staggered Board

In accordance with the terms of our amended and restated certificate of incorporation that will become effective upon the closing of this offering and amended and restated bylaws that will become effective upon the effectiveness of the registration statement of which this prospectus is a part, our board of directors will be divided into three staggered classes of directors and each will be assigned to one of the three classes. At each annual meeting of the stockholders, a class of directors will be elected for a three-year term to succeed the

directors of the same class whose terms are then expiring. The terms of the directors will expire upon the election and qualification of successor directors at the annual meeting of stockholders to be held during the years 2017 for Class I directors, 2018 for Class II directors and 2019 for Class III directors.

- Our Class I directors will be Drs. Bermingham and Formela;
- Our Class II directors will be Drs. Gordon and Haurwitz; and
- Our Class III directors will be Ms. Dorsa, Mr. Karsen and Dr. Leonard.

Our amended and restated certificate of incorporation that will become effective upon the closing of this offering and amended and restated by-laws that will become effective upon the effectiveness of the registration statement of which this prospectus is a part provide that the number of our directors shall be fixed from time to time by a resolution of the majority of our board of directors.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent stockholder efforts to effect a change of our management or a change in control.

Board Leadership Structure and Board's Role in Risk Oversight

Currently, the role of chairman of the board is separated from the role of Chief Executive Officer, and we plan to keep these roles separated following the completion of this offering. We believe that separating these positions allows our Chief Executive Officer to focus on our day-to-day business, while allowing a chairman of the board to lead the board of directors in its fundamental role of providing advice to and independent oversight of management. Our board of directors recognizes the time, effort and energy that the Chief Executive Officer is required to devote to his position in the current business environment, as well as the commitment required to serve as our chairman, particularly as the board of directors' oversight responsibilities continue to grow. While our amended and restated by-laws and corporate governance guidelines do not require that our chairman and Chief Executive Officer positions be separate, our board of directors believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including risks relating to our financial condition, development and commercialization activities, operations, strategic direction and intellectual property as more fully discussed in the section entitled "Risk Factors" appearing elsewhere in this prospectus. Management is responsible for the day-to-day management of risks we face, while our board of directors, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

The role of the board of directors in overseeing the management of our risks is conducted primarily through committees of the board of directors, as disclosed in the descriptions of each of the committees below and in the charters of each of the committees. The full board of directors (or the appropriate board committee in the case of risks that are under the purview of a particular committee) discusses with management our major risk exposures, their potential impact on us, and the steps we take to manage them. When a board committee is responsible for evaluating and overseeing the management of a particular risk or risks, the chairman of the relevant committee reports on the discussion to the full board of directors during the committee reports portion of the next board meeting. This enables the board of directors and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

Committees of Our Board of Directors

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which will operate pursuant to a charter adopted by our board of directors that will be effective upon the effectiveness of the registration statement of which this prospectus is a

part. Upon the effectiveness of the registration statement of which this prospectus is a part, the composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act of 2002, NASDAQ and SEC rules and regulations.

Audit Committee

Ms. Dorsa, Dr. Formela and Dr. Gordon will serve on the audit committee, which will be chaired by Ms. Dorsa. Our board of directors has determined that Ms. Dorsa, Dr. Formela and Dr. Gordon are "independent" for audit committee purposes as that term is defined in the rules of the SEC and the applicable NASDAQ rules, and each has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our board of directors has designated Ms. Dorsa as an "audit committee financial expert," as defined under the applicable rules of the SEC. The audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending based upon the audit committee's review and discussions with management and our independent registered public accounting firm whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

Compensation Committee

Ms. Dorsa, Dr. Formela, Dr. Gordon and Mr. Karsen will serve on the compensation committee, which will be chaired by Dr. Formela. Our board of directors has determined that each member of the compensation committee is "independent" as defined in the applicable NASDAQ rules. The compensation committee's responsibilities include:

- annually reviewing and recommending to the board of directors the corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and based on such evaluation: (i) recommending to the board of directors the cash compensation of our Chief Executive Officer and (ii) reviewing and approving grants and awards to our Chief Executive Officer under equity-based plans;

- reviewing and recommending to the board of directors the cash compensation of our executive officers other than our Chief Executive Officer;
- determining the equity compensation of our executive officers other than our Chief Executive Officer under equity-based plans;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;
- evaluating and assessing potential and current compensation advisors in accordance with the independence standards identified in the applicable NASDAQ rules;
- retaining and approving the compensation of any compensation advisors;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and recommending to the board of directors the compensation of our directors;
- preparing the compensation committee report required by SEC rules, if and when required, to be included in our annual proxy statement; and
- reviewing and approving the retention or termination of any consulting firm or outside advisor to assist in the evaluation of compensation matters.

Nominating and Corporate Governance Committee

Ms. Dorsa, Dr. Formela and Mr. Karsen will serve on the nominating and corporate governance committee, which will be chaired by Mr. Karsen. Our board of directors has determined that each member of the nominating and corporate governance committee is "independent" as defined in the applicable NASDAQ rules. The nominating and corporate governance committee's responsibilities include:

- developing and recommending to the board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- reviewing the composition of the board of directors to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- identifying individuals qualified to become members of the board of directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- developing and recommending to the board of directors a code of business conduct and ethics and a set of corporate governance guidelines; and
- overseeing the evaluation of our board of directors and management.

Our board of directors may from time to time establish other committees.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time during the prior three years been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Corporate Governance

Prior to the effectiveness of the registration statement of which this prospectus is a part, we will adopt 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. Following the effectiveness of the registration statement of which this prospectus is a part, a current copy of the code will be posted on the Corporate Governance section of our website, which is located at www.intelliatx.com. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

EXECUTIVE COMPENSATION

Executive Compensation Overview

Our executive compensation program has reflected our growth and development-oriented corporate culture. To date, the compensation of our Chief Executive Officer and our other executive officers identified in the Summary Compensation Table below, who we refer to as the named executive officers, has primarily consisted of a combination of base salary, bonuses and long-term incentive compensation in the form of restricted stock awards. Our named executive officers, like all full-time employees, are eligible to participate in our health and welfare benefit plans. As we transition from a private company to a publicly traded company, we will evaluate our compensation values and philosophy and compensation plans and arrangements as circumstances require. At a minimum, we expect to review executive compensation annually with input from a compensation consultant. As part of this review process, we expect the board of directors and the compensation committee to apply our values and philosophy, while considering the compensation levels needed to ensure our executive compensation program remains competitive. We will also review whether we are meeting our retention objectives and the potential cost of replacing a key employee.

Summary Compensation Table

The following table presents information regarding the total compensation awarded to, earned by, and paid to our named executive officers for services rendered to us in all capacities for the years indicated.

Name and Principal Position		Salary ($)	Bonus ($)(1)	Stock Awards ($)(2)	All Other Compensation ($)(3)	Total ($)
Nessan Bermingham, Ph.D.(4)	2015	383,333	180,000	—	—	563,333
Founder, President and Chief Executive Officer	2014	151,668	175,000	320,368	—	647,036
Sapna Srivastava, Ph.D.(5)	2015	220,000	73,200	221,689	25,630	540,519
Chief Financial and Strategy Officer						
José E. Rivera, J.D.(6)	2015	325,000	123,750	—	47,445	496,195
Chief Operating Officer and Chief Legal Officer	2014	150,000	81,250	52,719	11,006	294,975

(1) The amounts reflect the discretionary bonus paid in the subsequent year for performance during the year indicated.

(2) Amounts reflect the grant date fair value of equity-based awards granted in the year in accordance with Financial Accounting Standards Board, Accounting Standards Codification Topic 718, or ASC 718. Such grant-date fair value does not take into account any estimated forfeitures related to service-vesting conditions. These amounts do not correspond to the actual value that may be recognized by the named executive officers upon vesting of the applicable awards.

(3) Amounts exclude medical, group life insurance and certain other benefits received by the named executive officers that are available generally to all of our salaried employees on the same terms. The amounts reported represent travel and lodging expenses related to travel between the applicable named executive officer's home office and our headquarters in Massachusetts. For 2015, such amounts include (i) transportation expenses of $16,322 for Dr. Srivastava and $21,414 for Mr. Rivera, (ii) lodging expenses of $9,234 for Dr. Srivastava and $25,180 for Mr. Rivera and (iii) meals expense of $74 for Dr. Srivastava and $851 for Mr. Rivera.

(4) Dr. Bermingham commenced employment with us on December 1, 2014. His annualized base salary for 2014 was $350,000. The amount reported for 2014 also includes amounts paid to Dr. Bermingham pursuant to a consulting agreement with us, dated July 31, 2014, pursuant to which he was paid $29,167 per month from July 2014 through November 2014 for consulting services provided to us.

(5) Dr. Srivastava commenced employment with us on April 6, 2015. Her annualized base salary for 2015 was $300,000.

(6) Mr. Rivera commenced employment with us on October 1, 2014. His annualized base salary for 2014 was $300,000. The amount reported for 2014 also includes amounts paid to Mr. Rivera pursuant to a consulting agreement with us, dated July 31, 2014, pursuant to which he was paid $25,000 per month from July 2014 through November 2014 for consulting services provided to us.

Employment Arrangements with our Named Executive Officers

We have an offer letter agreement with each of our named executive officers in connection with their employment with us. These offer letters provide for "at will" employment.

Nessan Bermingham, Ph.D. On December 15, 2014, we entered into a letter agreement with Dr. Bermingham for the position of Chief Executive Officer and President. Dr. Bermingham currently receives an annual base salary of $450,000, which is subject to review and adjustment in accordance with company policy. Dr. Bermingham is also eligible for an annual discretionary bonus of up to 40% of his base salary, payable at the discretion of the board of directors. Dr. Bermingham is eligible to participate in employee benefit plans generally available to our executive employees, subject to the terms of those plans.

Sapna Srivastava, Ph.D. On April 6, 2015, we entered into a letter agreement with Dr. Srivastava for the position of Chief Financial and Strategy Officer. Dr. Srivastava currently receives an annual base salary of $300,000, which is subject to review and adjustment in accordance with company policy. Dr. Srivastava is also eligible for an annual discretionary bonus of up to 33% of her base salary, payable at the discretion of the board of directors. Dr. Srivastava is eligible to participate in employee benefit plans generally available to our executive employees, subject to the terms of those plans.

José E. Rivera, J.D. On September 30, 2014, we entered into a letter agreement with Mr. Rivera for the position of General Counsel and Chief Talent Officer. Mr. Rivera currently receives an annual base salary of $375,000, which is subject to review and adjustment in accordance with company policy. Mr. Rivera is also eligible for an annual discretionary bonus of up to 33% of his base salary, payable at the discretion of the board of directors. Mr. Rivera is eligible to participate in employee benefit plans generally available to our executive employees, subject to the terms of those plans.

Our board of directors has approved employment agreements for each of our named executive officers, which will become effective upon the closing of this offering. These employment agreements provide for "at will" employment and will supersede and replace in all respects the terms of the offer letter agreements for our named executive officers described above.

Under the employment agreements, each of our named executive officers will be entitled to receive the same base salary and be eligible to receive a performance bonus with the same target percentage of base salary, in each case as set forth in such officer's current offer letter agreement. Each named executive officer will also be eligible to participate in the employee benefit plans generally available to full-time employees, subject to the terms of those plans. If a named executive officer's employment is terminated by us without cause, as defined in the officer's employment agreement, or by the named executive officer for good reason, as defined in the officer's employment agreement, and subject to the execution and effectiveness of a separation agreement, including a general release of claims in our favor, the named executive officer will be entitled to receive: (i) an amount equal to 12 months of base salary in the case of Dr. Bermingham and nine months of base salary in the case of Dr. Srivastava and Mr. Rivera, in each case, payable in substantially equal installments over nine or 12 months, as applicable, following the officer's termination, and (ii) if the named executive officer is participating in our group health plan immediately prior to his or her termination, a monthly cash payment until the earlier of 12 months in the case of Dr. Bermingham or nine months in the case of Dr. Srivastava and Mr. Rivera, in each case, following termination or the end of the officer's COBRA health continuation period in an amount equal to the amount that we would have made to provide health insurance to the officer had he or she remained employed with us. In addition, all time-based equity awards held by the named executive officer or by entities to which the named executive officer has properly transferred such awards that would have vested in the applicable nine or 12-month period following the officer's termination had he or she remained employed by us during such period will accelerate and vest as of the date of termination. In lieu of the payments and benefits described above, in the event that the named executive officer's employment is terminated by us without cause or the named executive officer resigns for "good reason," as defined in the officer's employment agreement, in either case within 12 months following a "change in control," as defined in the officer's employment agreement, subject to the execution and effectiveness of a separation agreement, including a general release of claims in our favor, the

named executive officer will be entitled to receive (i) in the case of Dr. Bermingham, a lump sum cash payment equal to 18 months of his then-current base salary, or his base salary in effect immediately prior to the change in control, if higher, or, in the case of Dr. Srivastava and Mr. Rivera, 12 months of the officer's then-current base salary, or the officer's base salary in effect immediately prior to the change in control, if higher, in each case, plus the officer's target bonus, (ii) if the officer is participating in our group health plan immediately prior to his or her termination, a monthly cash payment until the earlier of 12 or 18 months, as applicable, following termination or the end of the officer's COBRA health continuation period in an amount equal to the amount that we would have made to provide health insurance to him had he or she remained employed with us and (iii) full acceleration of all time-based equity awards held by the officer or by entities to whom the officer has properly transferred such awards.

Employee Confidentiality, Non-Competition, Non-Solicitation and Assignment Agreements

Each of our named executive officers has entered into a standard form agreement with respect to confidential information and assignment of inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our proprietary information received during the course of employment and to assign to us any inventions conceived or developed during the course of employment. Such agreement also provides that during the period of the named executive officer's employment and for six months thereafter, the named executive officer will not compete with us and will not solicit our employees, consultants, customers or suppliers.

Outstanding Equity Awards at 2015 Fiscal Year-End

The following table sets forth information concerning outstanding equity awards held by each of our named executive officers as of December 31, 2015. All equity awards in the table below were issued upon conversion of awards made by Intellia Therapeutics, LLC prior to the Reorganization.

	Stock Awards	
Name	Number of Shares That Have Not Vested (#)	Market Value of Shares of Stock That Have Not Yet Vested ($)(1)
Nessan Bermingham, Ph.D	225,793(2)	3,838,481
Sapna Srivastava, Ph.D	159,031(3)	2,703,527
José E. Rivera, J.D	169,344(4)	2,878,848

(1) There was no public market for our common stock on December 31, 2015. We have estimated the market value of the unvested stock award based on an assumed initial public offering price of $17.00 per share, the midpoint of the range listed on the cover of this prospectus.

(2) Represents a restricted stock award for 349,614 shares of our common stock. This restricted stock award vests as follows: 25% of the shares vested and became nonforfeitable on July 31, 2015, and the remainder of the shares vest and become nonforfeitable in substantially equal monthly installments over the following 36 months, subject to Dr. Bermingham's continued service to us.

(3) This restricted stock award vests as follows: 25% of the shares will vest and become nonforfeitable on April 6, 2016 and the remainder of the shares vest and become nonforfeitable in substantially equal monthly installments over the following 36 months, subject to Dr. Srivastava's continued service to us.

(4) Represents a restricted stock award for 262,210 shares of our common stock. This restricted stock award vests as follows: 25% of the shares vested and became nonforfeitable on July 31, 2015, and the remainder of the shares vest and become nonforfeitable in substantially equal monthly installments over the following 36 months, subject to Mr. Rivera's continued service to us. This restricted stock award is held by Rivak Capital LLC. Mr. Rivera is a member and manager of Rivak Capital LLC.

Compensation Risk Assessment

We believe that although a portion of the compensation provided to our executive officers and other employees is performance-based, our executive compensation program does not encourage excessive or unnecessary risk taking. This is primarily due to the fact that our compensation programs are designed to

encourage our executive officers and other employees to remain focused on both short-term and long-term strategic goals. As a result, we do not believe that our compensation programs are reasonably likely to have a material adverse effect on us.

Employee Benefit and Equity Compensation Plans

2015 Stock Plan

Our 2015 Plan was approved by our board of directors and stockholders in August 2015 and was most recently amended in February 2016 to increase the number of shares reserved for issuance. We reserved an aggregate of 5,673,226 shares of our common stock for the issuance of awards under the 2015 Plan. This number is subject to adjustment in the event of a subdivision of outstanding stock, a stock dividend, a combination or consolidation of stock, a reclassification, or any other increase or decrease in the number of issued shares of common stock. Effective upon the closing of this offering, our 2015 Plan will be restated as our 2015 Restated Plan. The shares of common stock underlying any awards that are canceled or reacquired by us or are withheld by us for payment of the purchase price, exercise price or withholding taxes under the 2015 Plan are added back to the shares of common stock available for issuance under the 2015 Plan. Upon the closing of this offering, such shares will be added to the shares of common stock available for issuance under the 2015 Restated Plan.

The 2015 Plan is administered by our board of directors. The administrator has full authority and discretion to take any actions it deems necessary or advisable for the administration of the 2015 Plan.

Our employees, outside directors and consultants are eligible to receive awards under the 2015 Plan.

The 2015 Plan provides that upon the effectiveness of a "sale event," as defined in the 2015 Plan, an acquirer or successor entity may assume, continue or substitute outstanding awards under the 2015 Plan. To the extent that awards granted under the 2015 Plan are not assumed or continued or substituted by the successor entity, upon the effective time of the sale event, the 2015 Plan and all outstanding awards thereunder shall terminate. In the event of such termination, except to the extent otherwise provided in the relevant award certificate, all options and stock appreciation rights that are not exercisable immediately prior to the effective time of the sale event shall become fully exercisable as of the effective time of the sale event, all other awards with time based vesting, conditions or restrictions, shall become fully vested and nonforfeitable as of the effective time of the sale event and all awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in the discretion of the administrator or to the extent specified in the relevant award certificate. In addition, in connection with the termination of the 2015 Plan upon a sale event, we may make or provide for a cash payment to participants holding vested and exercisable options and stock appreciation rights equal to the difference between the per share cash consideration payable to stockholders in the sale event and the exercise price of the options or stock appreciation rights or each grantee shall be permitted within a specified period of time prior to the sale event, to exercise all outstanding stock options and stock appreciation rights held by such grantee to the extent exercisable.

Our board of directors may amend or discontinue the 2015 Plan and the administrator may amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose, but no such action may adversely affect rights under an award without the holder's consent. Certain amendments to the 2015 Plan require the approval of our stockholders.

Amended and Restated 2015 Stock Option and Incentive Plan

Our 2015 Restated Plan was adopted by our board of directors on January 19, 2016, approved by our stockholders on April 22, 2016 and amended on April 26, 2016. The 2015 Restated Plan will become effective on the date immediately prior to the date on which the registration statement of which this prospectus is part is declared effective by the SEC. The 2015 Restated Plan will amend and restate the 2015 Plan. The 2015 Restated Plan allows the board of directors and the compensation committee to make equity-based incentive awards to our officers, employees, directors and other key persons (including consultants).

We have initially reserved 7,058,823 shares of our common stock for the issuance of awards under the 2015 Restated Plan, or the Initial Limit. The 2015 Restated Plan provides that the number of shares reserved and available for issuance under the plan will automatically increase each January 1, beginning on January 1, 2017, by 4% of the outstanding number of shares of our common stock on the immediately preceding December 31 or such lesser number of shares as determined by our compensation committee, or the Annual Increase. The Initial Limits and other share limited in the 2015 Restated Plan are subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

The shares we issue under the 2015 Restated Plan will be authorized but unissued shares or shares that we acquire. The shares of common stock underlying any awards that are forfeited, cancelled, held back upon exercise of an option or settlement of an award to cover the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without the issuance of stock or are otherwise terminated (other than by exercise) under the 2015 Restated Plan will be added back to the shares of common stock available for issuance under the 2015 Restated Plan.

Stock options and stock appreciation rights with respect to no more than the Initial Limit may be granted to any one individual in any one calendar year. The maximum number of shares that may be issued as incentive stock options may not exceed the Initial Limit cumulatively increased on January 1, 2017 and on each January 1 thereafter by the lesser of the Annual Increase or 7,058,823 shares. The value of all awards made under the 2015 Restated Plan and all other cash compensation paid by us to any non-employee director in any calendar year shall not exceed $1.0 million.

The 2015 Restated Plan will be administered by our compensation committee. Our compensation committee has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, to make any combination of awards to participants, and to determine the specific terms and conditions of each award, subject to the provisions of the 2015 Restated Plan. Persons eligible to participate in the 2015 Restated Plan will be those full or part-time officers, employees, non-employee directors and consultants as selected from time to time by our compensation committee in its discretion.

The 2015 Restated Plan permits the granting of both options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and options that do not so qualify. The option exercise price of each option will be determined by our compensation committee but may not be less than 100% of the fair market value of our common stock on the date of grant. The term of each option will be fixed by our compensation committee and may not exceed ten years from the date of grant. Our compensation committee will determine at what time or times each option may be exercised.

Our compensation committee may award stock appreciation rights subject to such conditions and restrictions as it may determine. Stock appreciation rights entitle the recipient to shares of common stock, or cash, equal to the value of the appreciation in our stock price over the exercise price. The exercise price may not be less than 100% of the fair market value of our common stock on the date of grant. The term of each stock appreciation right will be fixed by our compensation committee and may not exceed ten years from the date of grant. Our compensation committee will determine at what time or times each stock appreciation right may be exercised.

Our compensation committee may award restricted shares of common stock and restricted stock units to participants subject to such conditions and restrictions as it may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment with us through a specified vesting period. Our compensation committee may also grant shares of common stock that are free from any restrictions under the 2015 Restated Plan. Unrestricted stock may be granted to participants in recognition of past services or for other valid consideration and may be issued in lieu of cash compensation due to such participant.

Our compensation committee may grant performance share awards to participants that entitle the recipient to receive awards of common stock upon the achievement of certain performance goals and such other conditions as our compensation committee may determine. Our compensation committee may grant dividend equivalent rights to participants that entitle the recipient to receive credits for dividends that would be paid if the recipient had held a specified number of shares of common stock.

Our compensation committee may grant cash bonuses under the 2015 Restated Plan to participants, subject to the achievement of certain performance goals.

Our compensation committee may grant awards of restricted stock, restricted stock units, performance share awards or cash-based awards under the 2015 Restated Plan that are intended to qualify as "performance-based compensation" under Section 162(m) of the Code. Such awards will only vest or become payable upon the attainment of performance goals that are established by our compensation committee and related to one or more performance criteria. The performance criteria that could be used with respect to any such awards are limited to: total stockholder return, earnings before interest, taxes, depreciation and amortization, net income (loss) (either before or after interest, taxes, depreciation and/or amortization), changes in the market price of our common stock, economic value-added, funds from operations or similar measure, sales or revenue, development, clinical, regulatory or commercial milestones, acquisitions or strategic transactions, including licenses, collaborations, joint ventures or promotional arrangements, operating income (loss), cash flow (including, but not limited to, operating cash flow and free cash flow), return on capital, assets, equity, or investment, return on sales, gross or net profit levels, productivity, expense, margins, operating efficiency, customer satisfaction, working capital, earnings (loss) per share of our common stock, sales or market shares and number of customers, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group. From and after the time that we become subject to Section 162(m) of the Code, the maximum award that is intended to qualify as "performance-based compensation" under Section 162(m) of the Code that may be made to certain of our officers during any one calendar year period is 2,500,000 shares of common stock with respect to a share-based award and $5.0 million with respect to a cash-based award.

The 2015 Restated Plan provides that upon the effectiveness of a "sale event," as defined in the 2015 Restated Plan, an acquirer or successor entity may assume, continue or substitute outstanding awards under the 2015 Restated Plan. In the event that awards are assumed, continued or substituted in connection with a sale event and a grantee's employment or other service relationship is terminated without cause by the Company, or its successor, or a grantee's employment is terminated by the grantee for good reason, in either case in connection with or within 12 months following the sale event, (i) except as may otherwise be provided in the relevant award certificate, all awards held by such grantee with time-based vesting, conditions or restrictions shall become fully vested and nonforfeitable as of the effective time of such termination, and (ii) all awards held by such grantee with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in the discretion of the administrator or the extent specified in the relevant award certificate. To the extent that awards granted under the 2015 Restated Plan are not assumed or continued or substituted by the successor entity, upon the effective time of the sale event, the 2015 Restated Plan and all awards thereunder shall terminate. In the event of such termination, except as may otherwise be provided in the relevant award certificate, all options and stock appreciation rights that are not exercisable immediately prior to the effective time of the sale event shall become fully exercisable as of the effective time of the sale event, all other awards with time based vesting, conditions or restrictions, shall become fully vested and nonforfeitable as of the effective time of the sale event and all awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in the discretion of the administrator or to the extent specified in the relevant award certificate. In addition, in connection with the termination of the 2015 Restated Plan and awards thereunder upon a sale event, we may make or provide for a cash payment to participants holding vested and exercisable options and stock appreciation rights equal to the difference between the per share cash consideration payable to stockholders in the sale event and the exercise price of the options or stock appreciation rights or each grantee, shall be permitted within a specified period of time prior to the sale event, to exercise all outstanding stock options and stock appreciation rights held by such grantee to the extent exercisable. We shall also have the option to make or provide for payment, in cash or in kind, to the grantees of other awards equal to the per share cash consideration payable to stockholders in the sale event multiplied by the number of vested shares of common stock subject to such awards.

Our board of directors may amend or discontinue the 2015 Restated Plan and our compensation committee may amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose, but no such action may adversely affect rights under an award without the holder's consent. Certain amendments to the 2015 Restated Plan require the approval of our stockholders.

No awards may be granted under the 2015 Restated Plan after the date that is ten years from the date of stockholder approval of the 2015 Restated Plan. Our board of directors has approved the issuance under the 2015 Restated Plan of incentive and non-qualified stock options to acquire an aggregate of 314,767 shares of common stock on the effective date of the registration statement of which this prospectus is a part. These stock options will have an exercise price equal to the public offering price. No other awards under the 2015 Restated Plan have been made prior to the date hereof.

2016 Employee Stock Purchase Plan

Our 2016 Employee Stock Purchase Plan, or ESPP, was adopted by our board of directors on January 19, 2016 and approved by our stockholders on April 22, 2016 and will become effective on the date immediately prior to the date on which the registration statement of which this prospectus is part is declared effective by the SEC. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423(b) of the Code. The ESPP initially reserves and authorizes the issuance of up to a total of 441,176 shares of common stock to participating employees. The ESPP provides that the number of shares reserved and available for issuance will automatically increase each January 1, beginning on January 1, 2017 and each January 1 thereafter through January 1, 2026, by the least of (i) 1% of the outstanding number of shares of our common stock on the immediately preceding December 31; (ii) 500,000 shares or (iii) such number of shares as determined by the ESPP administrator. The number of shares reserved under the ESPP is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

All employees who have completed at least 30 days of employment and whose customary employment is for more than 20 hours per week are eligible to participate in the ESPP. However, any employee who owns 5% or more of the total combined voting power or value of all classes of stock is not eligible to purchase shares under the ESPP.

We will make one or more offerings each year to our employees to purchase shares under the ESPP. Offerings will usually begin on each January 1 and July 1 and will continue for six-month periods, referred to as offering periods. Each eligible employee may elect to participate in any offering by submitting an enrollment form at least 15 business days before the relevant offering date.

Each employee who is a participant in the ESPP may purchase shares by authorizing payroll deductions of up to 10% of his or her base compensation during an offering period. Unless the participating employee has previously withdrawn from the offering, his or her accumulated payroll deductions will be used to purchase shares on the last business day of the offering period at a price equal to 85% of the fair market value of the shares on the first business day or the last business day of the offering period, whichever is lower. Under applicable tax rules, an employee may purchase no more than $25,000 worth of shares of common stock, valued at the start of the purchase period, under the ESPP in any calendar year.

The accumulated payroll deductions of any employee who is not a participant on the last day of an offering period will be refunded. An employee's rights under the ESPP terminate upon voluntary withdrawal from the plan or when the employee ceases employment with us for any reason.

The ESPP may be terminated or amended by our board of directors at any time. An amendment that increases the number of shares of common stock authorized under the ESPP and certain other amendments require the approval of our stockholders.

Senior Executive Cash Incentive Bonus Plan

Our Senior Executive Cash Incentive Bonus Plan, or the Bonus Plan, was adopted by our board of directors on January 19, 2016. The Bonus Plan provides for cash bonus payments based upon the attainment of performance targets established by our compensation committee. The payment targets will be related to financial and operational measures or objectives with respect to our company, or Corporate Performance Goals, as well as individual performance objectives.

Our compensation committee may select Corporate Performance Goals from among the following: cash flow (including, but not limited to, operating cash flow and free cash flow); revenue; corporate revenue; earnings before interest, taxes, depreciation and amortization; net income (loss) (either before or after interest, taxes, depreciation and/or amortization); changes in the market price of our common stock; economic value-added; funds from operations or similar measure, sales or revenue, developmental, clinical or regulatory milestones, acquisitions or strategic transactions, including licenses, collaborations, joint ventures or promotion arrangements; operating income (loss); return on capital, assets, equity, or investment; total stockholder returns; return on sales; gross or net profit levels; productivity; expense efficiency; margins; operating efficiency; customer satisfaction; working capital; earnings (loss) per share stock; sales or market shares; number of customers, number of new customers or customer references; operating income and/or net annual recurring revenue, any of which may be measured in absolute terms or compared to any incremental increase, in terms of growth, compared to another company or companies or to results of a peer group, against the market as a whole and/or as compared to applicable market indices and/or measured on a pre-tax or post-tax basis (if applicable).

Each executive officer who is selected to participate in the Bonus Plan will have a target bonus opportunity set for each performance period. The bonus formulas will be adopted in each performance period by the compensation committee and communicated to each executive. The Corporate Performance Goals will be measured at the end of each performance period after our financial reports have been published or such other appropriate time as the compensation committee determines. If the Corporate Performance Goals and individual performance objectives are met, payments will be made as soon as practicable following the end of each performance period. The Bonus Plan also permits the compensation committee to approve additional bonuses to executive officers in its sole discretion.

401(k) Plan

We maintain a tax-qualified retirement plan that provides eligible employees with an opportunity to save for retirement on a tax-advantaged basis. All participants' interests in their contributions are 100% vested when contributed. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The retirement plan is intended to qualify under Section 401(a) of the Code. We do not currently make discretionary contributions or matching contributions to our 401(k) plan.

DIRECTOR COMPENSATION

The following table presents the total compensation for each person who served as a non-employee member of our board of directors during the year ended December 31, 2015. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or non-equity awards to or pay any other compensation to any of the non-employee members of our board of directors in 2015. We reimburse non-employee members of our board of directors for reasonable travel expenses. Dr. Nessan Bermingham, our Founder, President and Chief Executive Officer, Dr. John M. Leonard, our Chief Medical Officer, Dr. Jean-François Formela, Dr. Carl Gordon, Dr. Rachel Haurwitz and Dr. Andrew May did not receive any compensation for their respective service as members of our board of directors during fiscal year 2015. Dr. Bermingham's compensation for service as an employee is presented in the "Summary Compensation Table."

Name	Fees Earned or Paid in Cash ($)	Equity Awards ($)(1)	Total ($)
Caroline Dorsa	$ 2,877	$ 77,544	$80,421

(1) Amount reflects the grant date fair value of an option award granted in 2015 in accordance with ASC 718. Such grant-date fair value does not take into account any estimated forfeitures related to service-vesting conditions. These amounts do not correspond to the actual value that may be recognized by the named director upon vesting of the applicable awards. As of December 31, 2015, Ms. Dorsa held an option to purchase 16,588 shares of our common stock, which vests over a three-year period.

Non-Employee Director Compensation Policy

Our board of directors has adopted a non-employee director compensation policy, effective as of the completion of this offering, that is designed to enable us to attract and retain, on a long-term basis, highly qualified non-employee directors. Under the policy, each director who is not an employee will be paid cash compensation from and after the completion of this offering, as set forth below:

	Member Annual Fee	Chairman Additional Annual Fee
Board of Directors	$35,000	$ 25,000
Audit Committee	7,500	7,500
Compensation Committee	5,000	5,000
Nominating and Corporate Governance Committee	3,500	3,500

In addition, upon completion of this offering, each non-employee director serving on our board of directors will be granted non-qualified stock options on the date of the effectiveness of the registration statement of which this prospectus is a part, as set forth below:

Name	Non-qualified Stock Options (#)
Caroline Dorsa	15,176
Jean-François Formela, M.D	23,529
Carl L. Gordon, Ph.D., CFA	23,529
Rachel E. Haurwitz, Ph.D.	23,529
Perry Karsen	31,764

Each non-employee director elected or appointed to our board of directors following the completion of this offering will be granted a non-qualified stock option to purchase 31,764 shares of common stock on the date of such director's election or appointment to the board of directors. These stock options will vest as to 33 1/3 % of the total award one year after the date of grant and thereafter in substantially equal quarterly installments during the three years following the grant date, subject to continued service through such date. On the date of each annual meeting of stockholders of our company, each non-employee director will be granted a non-qualified stock option to purchase 10,500 shares of common stock, which will vest and become fully exercisable upon the earlier to occur of the first anniversary of the grant date or the date of the next annual meeting of stockholders following the date of grant, subject to continued service as a director through such date.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than the compensation agreements and other arrangements described under "Executive and Director Compensation" in this prospectus and the transactions described below, since our inception on May 7, 2014, there has not been and there is not currently proposed, any transaction or series of similar transactions to which we were, or will be, a party in which the amount involved exceeded, or will exceed, $120,000 and in which any director, executive officer, holder of five percent or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of the foregoing persons, had, or will have, a direct or indirect material interest.

License Agreement and Services Agreement with Caribou Biosciences, Inc.

In July 2014 we entered into a license agreement with Caribou Biosciences, Inc., or Caribou. We also entered into a related services agreement with Caribou in July 2014. See the section entitled "Business—Intellectual Property—Caribou Biosciences In-Licensed Intellectual Property" appearing elsewhere in this prospectus for more information. Rachel Haurwitz, a member of our board of directors, and Andrew May, a former member of our board of directors, are executive officers and stockholders of Caribou. Dr. Haurwitz is the President and Chief Executive Officer and a member of the board of Caribou. Dr. May currently serves as the Chief Scientific Officer of Caribou. Caribou Therapeutics Holdco, LLC, a holding company owned and managed by Caribou, is a greater than 5% stockholder in our company. Pursuant to the terms of the license agreement with Caribou, we hold an exclusive, worldwide license, or the Caribou license, for the use of any CRISPR/Cas9-related patents and applications that Caribou had developed and filed, as well as any CRISPR/Cas9-related intellectual property developed by Caribou between July 16, 2014 and the time period specified in the license agreement for human therapeutic, prophylactic, and palliative uses, except for anti-fungal and anti-microbial uses, defined in the license agreement as our field of use. Pursuant to the services agreement entered into with Caribou in parallel with the license agreement, we are also receiving research and development services from Caribou until November 2016.

In relation to our founding, on July 16, 2014, Intellia Therapeutics, LLC, our former sole stockholder and holding company parent, issued junior preferred units to Caribou Therapeutics Holdco, LLC. We also issued time-vested common units and incentive units to each of Drs. Haurwitz and May. Each of them then contributed all of their units to Caribou Therapeutics Holdco, LLC. All of these units held by Caribou Therapeutics Holdco, LLC were exchanged in the Reorganization for shares of junior preferred stock, shares of founder stock and shares of common stock. We also agreed to pay Caribou $5.0 million in service fees over the term of the services agreement and agreed to pay a percentage of Caribou's patent prosecution, filing and maintenance costs for such licensed intellectual property. As of December 31, 2015, we have paid $3.5 million to Caribou pursuant to the services agreement and $1.1 million for our portion of the patent prosecution, filing and maintenance costs pursuant to the license agreement.

License and Collaborative Research Agreement with Novartis Institutes for BioMedical Research, Inc.

In December 2014, we entered into a collaboration and license agreement, or the Novartis agreement, with Novartis Institutes for BioMedical Research, Inc., or Novartis, for the research of new CRISPR/Cas9-based therapies using CAR T cells and HSCs. We received a $10.0 million non-refundable upfront technology access payment from Novartis in January 2015 and are entitled to an additional $40.0 million, in aggregate, in additional technology access fees and research payments during the five-year collaboration term. In addition, we are eligible to receive up to $230.3 million in development, regulatory and sales-based milestone payments and mid single-digit royalties, in each case, on a per-product basis. See the section entitled "Business—Collaborations—Novartis Institutes for BioMedical Research, Inc." appearing elsewhere in this prospectus for more information.

Novartis is a greater-than-5% stockholder in our company. Prior to our entry into the Novartis agreement, in September 2014, we entered into an agreement with Novartis for the exclusive right to negotiate a transaction involving our grant to Novartis of certain rights to our CRISPR/Cas9 technology. Pursuant to the exclusivity agreement, we agreed to issue to Novartis preferred units in exchange for a fee. We issued Novartis preferred

units, which converted into 4,761,905 shares of our Class A-1 preferred stock and 2,666,666 shares of our Class A-2 preferred stock in the Reorganization. Our preferred units were issued to Novartis pursuant to the terms of the September 2014 Unit Purchase Agreement described below.

Private Placements of Securities

Class A/Junior Preferred Unit Financing of Intellia Therapeutics, LLC

In July 2014, Intellia Therapeutics, LLC entered into an Equity Contribution and Unit Purchase Agreement among Atlas and Caribou, pursuant to which:

- Atlas contributed to Intellia Therapeutics, LLC $2,899,999 in cash and 1,000 shares of our common stock that were purchased for $100,000 in June 2014 in exchange for 2,857,142 Class A preferred units; and
- In exchange for 8,110,599 junior preferred units, Caribou, through its wholly owned, subsidiary, Caribou Therapeutics Holdco, LLC, contributed to us all of its membership interests of Intellia, LLC. Intellia, LLC was a holding company that was the original party to the license agreement with Caribou and otherwise had no other assets or operations prior to being merged with and into us in July 2014. See the section entitled "License Agreement and Services Agreement with Caribou Biosciences, Inc." for more information.

Class A-1 Preferred Unit Financing of Intellia Therapeutics, LLC

In September 2014, in connection with our Class A-1/A-2 preferred unit financing, we entered into a unit purchase agreement, or the Class A-1/A-2 purchase agreement, pursuant to which we agreed to issue and sell to investors an aggregate of (i) 5,714,287 Class A-1 preferred units at a purchase price of $1.05 for aggregate consideration of $6,000,001 and (ii) 3,999,999 Class A-2 preferred units at a purchase price of $1.50 for aggregate consideration of $5,999,999 at a subsequent closing. In December 2014, we amended the Class A-1/A-2 purchase agreement to provide for the issuance of the Class A-2 units at two subsequent closings.

The table below sets forth the aggregate number of Class A-1 preferred units sold to our directors, executive officers or holders of more than 5% of our capital stock at the time of such issuance, or an affiliate or immediate family member thereof under the Class A-1/A-2 purchase agreement:

Name	Class A-1 Preferred Units	Total Purchase Price
Atlas Venture Fund IX, LP	952,382	$ 1,000,001
Novartis Institutes for BioMedical Research, Inc	4,761,905	$ 5,000,000

Class A-2 Preferred Unit Financing of Intellia Therapeutics, LLC

The first subsequent closing under the Class A-1/A-2 purchase agreement, as amended, occurred in December 2014. The second subsequent closing under the Class A-1/A-2 purchase agreement, as amended, occurred in January 2015. The table below sets forth the number of Class A-2 preferred units sold to our directors, executive officers or holders of more than 5% of our capital stock at the time of such issuance, or an affiliate or immediate family member thereof:

Name	Class A-2 Preferred Units	Total Purchase Price
Atlas Venture Fund IX, LP	1,333,333	$ 2,000,000
Novartis Institutes for BioMedical Research, Inc	2,666,666	$ 3,999,999

Series B Preferred Stock Financing

In August 2015, Intellia Therapeutics, Inc. entered into a Series B Preferred Stock Purchase Agreement pursuant to which we issued and sold an aggregate of 13,336,601 shares of our Series B preferred stock at a price per share of $5.25, for an aggregate purchase price of $70.0 million. The following table sets forth the number of shares of our Series B Preferred Stock that we issued to our 5% stockholders and their affiliates in this transaction:

Name	Shares of Series B Preferred Stock	Total Purchase Price
Atlas Venture Fund IX, LP	761,905	$ 4,000,001
Entities affiliated with Fidelity Management & Research LLC	2,857,143	$ 15,000,001
Novartis Institutes for BioMedical Research, Inc	761,905	$ 4,000,001
Entities affiliated with OrbiMed Advisors LLC	3,730,618	$ 19,585,745

Relationship with Regeneron and Concurrent Private Placement

In April 2016, we entered into a research collaboration and license agreement with Regeneron. See "Business—Collaborations—Regeneron Pharmaceuticals, Inc." Pursuant to that collaboration, we received an upfront payment of $75.0 million.

Regeneron has agreed to purchase $50.0 million of our common stock in a separate private placement concurrent with the completion of this offering at a price per share equal to the public offering price. The sale of such shares will not be registered under the Securities Act. The closing of this offering is not conditioned upon the closing of such concurrent private placement.

Concurrent Private Placement with Novartis

Novartis has agreed to purchase $5.0 million of our common stock in a separate private placement concurrent with the completion of this offering at a price per share equal to the public offering price. The sale of such shares will not be registered under the Securities Act. The closing of this offering is not conditioned upon the closing of such concurrent private placement.

Investors' Rights Agreement

In connection with our Series B Preferred Stock financing, on August 20, 2015, we entered into an investors' rights agreement with the holders of our Junior, Series A-1, Series A-2 and Series B Preferred Stock and certain key holders of our common stock, which agreement was amended in connection with the execution of our collaboration agreement with Regeneron and in connection with Novartis' concurrent private placement. This agreement provides these holders with certain rights relating to the registration of their shares under the Securities Act. For a more detailed description of these registration rights, see the section titled "Description of Capital Stock—Registration Rights."

This agreement also establishes certain "information and observer" rights and rights of first offer, and sets forth certain covenants relating to insurance, employee agreements, employee stock, indemnification, and related matters. On the closing of this offering, all provisions relating to these rights and covenants will terminate.

Consulting Arrangement

From inception through September 30, 2014, we received consulting and management services from Atlas Venture Advisors, Inc., or Atlas Venture Advisors, which through its affiliate, Atlas Venture Fund IX, has a greater than 5% ownership interest in us. We have paid Atlas Venture Advisors $0.3 million for these services, including the reimbursement of expenses. We did not and do not have a written agreement in place with Atlas Venture Advisors with respect to the provision of consulting and management services, nor did or do we have a

written agreement in place for the use of Atlas Venture Advisors' premises. From time to time and at our request, partners and associates of Atlas Venture Advisors provided us with certain strategic and ordinary course business operations consulting services at fees mutually agreed upon in advance by us and Atlas Venture Advisors. For example, prior to becoming a consultant and then employee of our company, Atlas Venture Advisors provided us with the services of Nessan Bermingham, who is our Founder, President and Chief Executive Officer and who provided scientific leadership, business development and executive services. We paid these consulting and management services fees to Atlas Venture Advisors pursuant to invoices that Atlas Venture Advisors submitted to us from time to time. The consulting and management services fees paid to Atlas Venture Advisors were based upon customary rates for such services and did not exceed 5% of the consolidated gross revenue of Atlas Venture Advisors during any of the past three fiscal years.

Indemnification Agreements

We have entered into agreements to indemnify our directors and executive officers. These agreements will, among other things, require us to indemnify these individuals for certain expenses (including attorneys' fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in our right, on account of any services undertaken by such person on behalf of our company or that person's status as a member of our board of directors to the maximum extent allowed under Delaware law.

Participation in this Offering

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $30.0 million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering.

Policies for Approval of Related Party Transactions

Our board of directors reviews and approves transactions with directors, officers and holders of five percent or more of our voting securities and their affiliates, each a related party. Prior to this offering, the material facts as to the related party's relationship or interest in the transaction are disclosed to our board of directors prior to their consideration of such transaction, and the transaction is not considered approved by our board of directors unless a majority of the directors who are not interested in the transaction approve the transaction. Further, when stockholders are entitled to vote on a transaction with a related party, the material facts of the related party's relationship or interest in the transaction are disclosed to the stockholders, who must approve the transaction in good faith.

In connection with this offering, we have adopted a written related party transactions policy that such transactions must be approved by our audit committee. This policy will become effective on the date on which the registration statement of which this prospectus is part is declared effective by the SEC.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information known to us regarding beneficial ownership of our capital stock as of March 31, 2016, as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each person or group of affiliated persons known by us to be the beneficial owner of more than five percent of our capital stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

To the extent that the underwriters sell more than 5,000,000 shares in this offering, the underwriters have the option to purchase up to an additional 750,000 shares at the initial public offering price less the underwriting discount.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Under those rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. Except as noted by footnote, and subject to community property laws where applicable, we believe, based on the information provided to us, that the persons and entities named in the table below have sole voting and investment power with respect to all common stock shown as beneficially owned by them.

Certain of our existing stockholders, including certain affiliates of our directors, have indicated an interest in purchasing an aggregate of approximately $30.0 million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The information set forth in the table below does not reflect any potential purchase of any shares in this offering by such parties.

The percentage of beneficial ownership prior to this offering in the table below is based on 26,040,712 shares of common stock deemed to be outstanding as of March 31, 2016, assuming the conversion of all outstanding shares of our preferred stock upon the closing of this offering. The percentage of beneficial ownership after this offering in the table below is based on 34,276,005 shares of common stock assumed to be outstanding after the closing of the offering and concurrent private placements. All of our preferred stock convert into shares of common stock on a one-for-0.6465903 basis. The information in the table below assumes no exercise of the underwriters' option to purchase additional shares.

Name and Address of Beneficial Owner(1)	Shares Beneficially Owned Prior to Offering		Shares Beneficially Owned After Offering	
	Number	Percentage	Number	Percentage
5% Stockholders:				
Atlas Venture Fund IX, L.P.(2)	4,429,788	17.0%	4,429,788	12.9%
Caribou Therapeutics Holdco, LLC(3)	5,593,846	21.5%	5,593,846	16.3%
Entities affiliated with Fidelity Management & Research Company(4)	1,847,395	7.1%	1,847,395	5.4%
Novartis Institutes for BioMedical Research, Inc.(5)	5,295,881	20.3%	5,589,998	16.3%
Entities affiliated with OrbiMed Advisors LLC(6)	2,412,180	9.3%	2,412,180	7.0%
Regeneron Pharmaceuticals, Inc(7)	—	—	2,941,176	8.6%
Named Executive Officers and Directors:				
Nessan Bermingham, Ph.D.(8)	786,633	3.0%	786,633	2.3%
Caroline Dorsa	—	—	—	—
Jean-François Formela, M.D.(9)	—	—	—	—
Carl L. Gordon, Ph.D., CFA(10)	2,412,180	9.3%	2,412,180	7.0%
Rachel E. Haurwitz, Ph.D.(11)	5,593,846	21.5%	5,593,846	16.3%
Perry Karsen	—	—	—	—
John M. Leonard, Ph.D.(12)	524,420	2.0%	524,420	1.5%
José E. Rivera, J.D.(13)	262,210	1.0%	262,210	*
Sapna Srivastava, Ph.D.(14)	159,031	*	159,031	*
All executive officers and directors as a group (11 persons)	10,087,934	38.7%	10,087,934	29.4%

* Represents beneficial ownership of less than one percent of our outstanding common stock

(1) Unless otherwise indicated, the address for each beneficial owner is c/o Intellia Therapeutics, Inc., 130 Brookline Street, Suite 201, Cambridge, MA 02139.

(2) Consists of (i) 611,827 shares of common stock issuable upon conversion of shares of Founder Stock, which are fully vested, (ii) 2,463,201 shares of common stock issuable upon conversion of shares of Series A-1 Preferred Stock, (iii) 862,120 shares of common stock issuable upon conversion of shares of Series A-2 Preferred Stock, and (iv) 492,640 shares of common stock issuable upon conversion of shares of Series B Preferred Stock. All shares are held directly by Atlas Venture Fund IX, L.P., or Atlas Venture Fund IX. Atlas Venture Associates IX, L.P., or AVA IX LP, is the general partner of Atlas Venture Fund IX, and Atlas Venture Associates IX, LLC, or AVA IX LLC, is the general partner of AVA IX LP. Peter Barrett, Bruce Booth, Jean-Francois Formela, Jeff Fagnan, Chris Lynch and Ryan Moore are the members of AVA IX LLC and collectively make investment decisions on behalf of Atlas Venture Fund IX, is each a director of AVA IX LLC. Dr. Formela is also a member of our board of directors. Dr. Formela disclaims beneficial ownership of such shares, except to the extent of his proportionate pecuniary interest therein, if any. The address for Atlas Venture Fund IX, is 25 First Street, Suite 303, Cambridge, MA 02141.

(3) Consists of (i) an aggregate of 174,806 shares of restricted common stock and 174,806 shares of common stock issuable upon conversion of shares of Founder Stock, all of which was subsequently transferred to Caribou Therapeutics Holdco, LLC, or Caribou Holdco (See the section entitled “Certain Relationships and Related Party Transactions—License Agreement and Services Agreement with Caribou Biosciences, Inc.” for additional information) and all of which are subject to vesting requirements, and (ii) 5,244,234 shares of common stock issuable upon conversion of shares of Junior Preferred Stock. Rachel Haurwitz, a greater than 5% stockholder of Caribou, is the President, Chief Executive Officer and a director of Caribou. Caribou Holdco is a wholly-owned subsidiary of Caribou, and Dr. Haurwitz may be deemed to share voting and dispositive power with respect to the shares held by Caribou Holdco. Dr. Haurwitz is a member of our board of directors. Dr. Haurwitz disclaims beneficial ownership of such shares, except to the extent of her pecuniary interest therein, if any. The address for Caribou Therapeutics Holdco, LLC, or Caribou Holdco, is 2929 7th Street, Suite 120, Berkeley, CA 94710.

(4) Consists of (i) 328,993 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity Select Portfolios: Biotechnology Portfolio, (ii) 78,635 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund, (iii) 18,368 shares of common stock issuable upon conversion of Series B Preferred Stock held by Pyramis Lifecycle Blue Chip Growth Commingled Pool, (iv) 409,999 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity Securities Fund: Fidelity Blue Chip Growth Fund, (v) 2,707 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity Blue Chip Growth Commingled Pool, (vi) 128,357 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity Securities Fund: Fidelity Series Blue Chip Growth Fund, (vii) 107,438 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity Mt. Vernon Street Trust: Fidelity Series Growth Company Fund, (viii) 390,900 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity Mt. Vernon Street: Fidelity Growth Company Fund, (ix) 117,460 shares of common stock issuable upon conversion of

Series B Preferred Stock held by Fidelity Growth Company Commingled Pool, (x) 260,358 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity Securities Fund: Fidelity OTC Portfolio, (xi) 4,180 shares of common stock issuable upon conversion of Series B Preferred Stock held by Fidelity OTC Commingled Pool. These accounts are managed by direct or indirect subsidiaries of Fidelity Management and Research LLC, or FMR LLC. Edward C. Johnson 3d is a Director and the Chairman of FMR LLC and Abigail P. Johnson is a Director, the Vice Chairman and the President of FMR LLC. Members of the family of Edward C. Johnson 3d, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Edward C. Johnson 3d nor Abigail P. Johnson has the sole power to vote or direct the voting of the shares owned directly by the various investment companies registered under the Investment Company Act, or Fidelity Funds, advised by Fidelity Management & Research Company, or FMR Co., a wholly owned subsidiary of FMR LLC, which power resides with the Fidelity Funds' Boards of Trustees. FMR Co. carries out the voting of the shares under written guidelines established by the Fidelity Funds' Boards of Trustees. The address for FMR Co. is 245 Summer Street, Boston, MA 02110.

(5) Consists of (i) 3,079,001 shares of common stock issuable upon conversion of shares of Series A-1 Preferred Stock, (ii) 1,724,240 shares of common stock issuable upon conversion of shares of Series A-2 Preferred Stock, and (iii) 492,640 shares of common stock issuable upon conversion of shares of Series B Preferred Stock. All shares are held by Novartis Institutes for BioMedical Research, Inc., or Novartis. In addition, Novartis has agreed to purchase $5.0 million of our common stock in a concurrent private placement at a price per share equal to the public offering price. Shares beneficially owned after offering for Novartis reflect the purchase of such shares in the concurrent private placement at $17.00 per share, the midpoint of the price range on the cover of this prospectus. Novartis is an indirect wholly-owned subsidiary of, and controlled by, Novartis AG. The address for Novartis is 250 Massachusetts Avenue, Cambridge, MA 02139.

(6) Consists of (i) 1,847,400 shares of common stock issuable upon the conversion of shares of Series B Preferred Stock, held by OrbiMed Private Investments V, LP, or OPI V, and (ii) 564,780 shares of common stock issuable upon the conversion of shares of Series B Preferred Stock, held by OrbiMed Global Healthcare Master Fund, L.P., or OGH. OrbiMed Capital GP V LLC, or GP V, is the general partner of OPI V, and OrbiMed Global Healthcare GP LLC, or OGH GP, is the general partner of OGH. OrbiMed Advisors LLC, or OrbiMed, is the managing member of each of GP V and OGH GP. Samuel D. Isaly is the managing member of and owner of a controlling interest in OrbiMed. By virtue of such relationships, GP V, OrbiMed and Mr. Isaly may be deemed to have voting and investment power with respect to the shares held by OPI V and as a result may be deemed to have beneficial ownership of such shares, and OGH GP, OrbiMed and Mr. Isaly may be deemed to have voting and investment power with respect to the shares held by OGH and as a result may be deemed to have beneficial ownership of such shares. Dr. Carl L. Gordon, one of our board members, is a member of OrbiMed. Each of GP V, OGH GP, OrbiMed, Mr. Isaly and Dr. Gordon disclaims beneficial ownership of the shares held by OPI V and OGH, respectively, except to the extent of its or his pecuniary interest therein, if any. The address for these entities is 601 Lexington Avenue, 54th floor, New York, New York 10022.

(7) Regeneron Pharmaceuticals, Inc., or Regeneron, has agreed to purchase $50.0 million of our common stock in a concurrent private placement at a price per share equal to the public offering price. Shares beneficially owned after offering for Regeneron reflect the purchase of such shares in the concurrent private placement at $17.00 per share, the midpoint of the price range on the cover of this prospectus.

(8) Consists of (i) 349,614 shares of common stock, which are subject to vesting requirements, and (ii) 437,019 shares of common stock issuable upon conversion of shares of Founder Stock, which are subject to vesting requirements.

(9) See note (2) above.

(10) Consists of the shares listed in footnote (6) above. Dr. Gordon is a member of OrbiMed, which is the managing member of the general partner of OPI V, and the general partner of OGH, and as such Dr. Gordon may be deemed to share voting and investment power with respect to the shares held by such entities. Dr. Gordon disclaims beneficial ownership of these shares except to the extent of this pecuniary interest therein if any. Dr. Gordon's business address is 601 Lexington Avenue, 54th floor, New York, New York 10022.

(11) Consists of the shares listed in footnote (3) above. Dr. Haurwitz is the President, Chief Executive Officer, a director and greater than 5% stockholder of Caribou, the parent of Caribou Holdco. As such, Dr. Haurwitz may be deemed to share voting and dispositive power with respect to all shares held by such entity. Dr. Haurwitz disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. Dr. Haurwitz's business address is 2929 7th Street, Suite 120, Berkeley, CA 94710.

(12) Consists of 524,420 shares of common stock, which are subject to vesting requirements.

(13) Consists of 262,210 shares of common stock, which are subject to vesting requirements. All shares are held by Rivak Capital LLC, or Rivak. Mr. Rivera is a member and manager of Rivak and has voting and dispositive power over the shares. The address for Rivak is 13450 N. Reigate Lane, Green Oaks, IL 60048.

(14) Consists of 159,031 shares of common stock, which are subject to vesting requirements.

DESCRIPTION OF CAPITAL STOCK

The following descriptions are summaries of the material terms of our amended and restated certificate of incorporation, which will be effective upon the closing of this offering and amended and restated bylaws, which will be effective upon the effectiveness of the registration statement of which this prospectus is a part. The descriptions of the common stock and preferred stock give effect to changes to our capital structure that will occur immediately prior to the completion of this offering. We refer in this section to our amended and restated certificate of incorporation as our certificate of incorporation, and we refer to our amended and restated bylaws as our bylaws.

General

Upon completion of this offering, our authorized capital stock will consist of 120,000,000 shares of common stock, par value $0.0001 per share, and 5,000,000 shares of preferred stock, par value $0.0001 per share, all of which shares of preferred stock will be undesignated.

As of March 31, 2016, 26,040,712 shares of our common stock were outstanding and held by 70 stockholders of record. This amount assumes the conversion of all outstanding shares of our preferred stock into common stock, which will occur immediately prior to the closing of this offering.

Common Stock

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. The shares to be issued by us in this offering will be, when issued and paid for, validly issued, fully paid and non-assessable.

Preferred Stock

Immediately prior to the completion of this offering, all outstanding shares of our preferred stock will be converted into shares of our common stock. Upon the consummation of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action. Immediately after consummation of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Registration Rights

Upon the completion of this offering and the concurrent private placements, the holders of 25,231,389 shares of our common stock, including those issuable upon the conversion of preferred stock, will be entitled to rights with respect to the registration of these securities under the Securities Act. These rights are provided under the terms of an investors' rights agreement between us, holders of our preferred stock and certain holders our common stock, which agreement was amended to grant Regeneron and Novartis registration rights upon the

completion of the concurrent private placements. The investors' rights agreement includes demand registration rights, short-form registration rights and piggyback registration rights. All fees, costs and expenses of underwritten registrations under this agreement will be borne by us and all selling expenses, including underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

Demand Registration Rights

Beginning 180 days after the completion of this offering, the holders of 25,231,389 shares of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, are entitled to demand registration rights. Under the terms of the investor rights agreement, we will be required, upon the written request of holders of these securities that would result in an aggregate offering price of at least $10.0 million, to file a registration statement and use commercially reasonable efforts to effect the registration of all or a portion of these shares for public resale. We are required to effect only two registrations pursuant to this provision of the investor rights agreement.

Short-Form Registration Rights

Upon the completion of this offering, the holders of 25,231,389 shares of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, are also entitled to short form registration rights. Pursuant to the investor rights agreement, if we are eligible to file a registration statement on Form S-3, upon the written request of 20% in interest of these holders to sell registrable securities at an aggregate price of at least $4.0 million, we will be required to use commercially reasonable efforts to effect a registration of such shares. We are required to effect only two registrations in any twelve month period pursuant to this provision of the investor rights agreement.

Piggyback Registration Rights

Upon the completion of this offering, the holders of 25,231,389 shares of our common stock, including those issuable upon the conversion of shares of our preferred stock upon closing of this offering, are entitled to piggyback registration rights. If we register any of our securities either for our own account or for the account of other security holders, the holders of these shares are entitled to include their shares in the registration. Subject to certain exceptions contained in the investor rights agreement, we and the underwriters may limit the number of shares included in the underwritten offering to the number of shares which we and the underwriters determine in our sole discretion will not jeopardize the success of the offering.

Indemnification

Our investor rights agreement contains customary cross-indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

Expiration of Registration Rights

The demand registration rights and short form registration rights granted under the investor rights agreement will terminate on the fifth anniversary of the completion of this offering.

Anti-Takeover Effects of our Certificate of Incorporation and Bylaws and Delaware Law

Our certificate of incorporation and bylaws include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board Composition and Filling Vacancies

Our certificate of incorporation provides for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of 75% or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

No Written Consent of Stockholders

Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

Meetings of Stockholders

Our certificate of incorporation and bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to Certificate of Incorporation and Bylaws

Any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law or our certificate of incorporation, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, limitation of liability, the exclusive jurisdiction of the Delaware courts and the amendment of our bylaws and certificate of incorporation must be approved by not less than 75% of the outstanding shares entitled to vote on the amendment, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of at least 75% of the outstanding shares entitled to vote on the amendment, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated Preferred Stock

Our certificate of incorporation provides for 5,000,000 authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Section 203 of the Delaware General Corporation Law

Upon completion of this offering, we will be subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

NASDAQ Global Market Listing

We have applied to list our common stock on The NASDAQ Global Market under the trading symbol "NTLA."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be Computershare Trust Company N.A.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our shares. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Based on the number of shares outstanding as of March 31, 2016, upon the completion of this offering and the concurrent private placements to Regeneron and Novartis, 34,276,005 shares of our common stock will be outstanding, assuming no exercise of the underwriters' option to purchase additional shares, no exercise of outstanding options and the issuance of 3,235,293 shares of common stock offered by us in the concurrent private placements, assuming a purchase price of $17.00 per share (the midpoint of the estimated range set forth on the cover page of this prospectus). Of the outstanding shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below. All remaining shares of common stock held by existing stockholders immediately prior to the completion of this offering and any shares held by Regeneron and Novartis, including those sold to it in the concurrent private placement, will be "restricted securities" as such term is defined in Rule 144. These restricted securities were issued and sold by us, or will be issued and sold by us, in private transactions and are eligible for public sale only if registered under the Securities Act or if they qualify for an exemption from registration under the Securities Act, including the exemptions provided by Rule 144 or Rule 701, summarized below.

Rule 144

In general, a person who has beneficially owned restricted stock for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the 90 days preceding, a sale and (ii) we are subject to the Securities Exchange Act of 1934, as amended, or the Exchange Act, periodic reporting requirements for at least 90 days before the sale. Persons who have beneficially owned restricted shares for at least six months but who are our affiliates at the time of, or any time during the 90 days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares then outstanding, which will equal approximately 342,760 shares immediately after this offering and the concurrent private placements, assuming no exercise of the underwriters' option to purchase additional shares, based on the number of shares outstanding as of March 31, 2016; or
- the average weekly trading volume of 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 the sale;

provided, in each case, that we are subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Such sales both by affiliates and by non-affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares.

However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under "Underwriting" included elsewhere in this prospectus and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Lock-Up Agreements

All of our directors, executive officers and stockholders have signed a lock-up agreement which prevents them from selling any of our common stock or any securities convertible into or exercisable or exchangeable for common stock for a period of not less than 180 days from the date of this prospectus without the prior written consent of the representatives, subject to certain exceptions. See the section entitled "Underwriting" appearing elsewhere in this prospectus for more information.

Registration Rights

Upon completion of this offering and the concurrent private placements, certain holders of our securities will be entitled to various rights with respect to registration of their 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. See the section entitled "Description of Capital Stock—Registration Rights" appearing elsewhere in this prospectus for more information.

Equity Incentive Plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register our shares issued or reserved for issuance under our equity incentive plans. The first such registration statement is expected to be filed soon after the date of this prospectus and will automatically become effective upon filing with the SEC. Accordingly, shares registered under such registration statement will be available for sale in the open market, unless such shares are subject to vesting restrictions with us or the lock-up restrictions described above. As of April 22, 2016, we estimate that such registration statement on Form S-8 will cover approximately 7,499,999 shares.

CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK

The following is a general discussion of the material U.S. federal income tax considerations applicable to non-U.S. holders (as defined below) with respect to their ownership and disposition of shares of our common stock issued pursuant to this offering. For purposes of this discussion, a non-U.S. holder means a beneficial owner of our common stock that is for U.S. federal income tax purposes:

- a non-resident alien individual;
- a foreign corporation or any other foreign organization taxable as a corporation for U.S. federal income tax purposes or;
- a foreign estate or trust, the income of which is not subject to U.S. federal income tax on a net income basis.

This discussion does not address the tax treatment of partnerships or other entities that are past-through entities for U.S. federal income tax purposes or persons that hold their common stock through partnerships or other pass-through entities. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her or its tax advisor regarding the tax consequences of acquiring, holding and disposing of our common stock through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, which we refer to as the Code, existing and proposed U.S. Treasury Regulations promulgated hereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any such change could alter the tax consequences to non-U.S. holders described in this prospectus. There can be no assurance that the Internal Revenue Service, which we refer to as the IRS, will not challenge one or more of the tax consequences described herein. We assume in this discussion that a non-U.S. holder holds shares of 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 aspects of U.S. federal income that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address any aspects of any U.S. federal tax other than the income tax, U.S. state, local or non-U.S. taxes, the alternative minimum tax, or the Medicare tax on net investment income. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- insurance companies;
- tax-exempt or governmental organizations;
- financial institutions;
- brokers or dealers in securities;
- regulated investment companies;
- pension plans;
- controlled foreign corporations;
- passive foreign investment companies;
- persons that have a functional currency other than the U.S. dollar;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;

- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons for whom our stock constitutes "qualified small business stock" within the meaning of Section 1202 of the Code; and
- certain U.S. expatriates.

This discussion is for general information only and is not tax advice. Accordingly, all prospective non-U.S. holders of our common stock should consult their tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock.

Distributions on Our Common Stock

Distributions, if any, on our common stock generally 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. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "Gain on sale, exchange or other disposition of our common stock." Any such distributions will also be subject to the discussion below under the section titled "Withholding and Information Reporting Requirements—FATCA."

Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing a U.S. tax return with the IRS.

Gain on Sale, Exchange or Other Disposition of Our Common Stock

In general, a non-U.S. holder will not be subject to any U.S. federal income tax on any gain realized upon such holder's sale, exchange or other disposition of shares of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed-base maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed on a net income basis at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on Our Common Stock" also may apply;

- the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States, provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses); or
- we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation," unless our common stock is regularly traded on an established securities market and the non-U.S. holder holds no more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. If we are determined to be a U.S. real property holding corporation and the foregoing exception does not apply, then a purchaser may withhold 10% of the proceeds payable to a non-U.S. holder from a sale of our common stock and the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above in "Distributions on Our Common Stock," generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them. Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is filed with the IRS in a timely manner.

Withholding and Information Reporting Requirements—FATCA

The Foreign Account Tax Compliance Act, or FATCA, generally imposes a U.S. federal withholding tax at a rate of 30% on payments of dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign entity unless (i) if the foreign entity is a "foreign financial institution," such foreign entity

undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a "foreign financial institution," such foreign entity identifies certain of its U.S. investors, if any, or (iii) the foreign entity is otherwise exempt under FATCA. Under applicable U.S. Treasury regulations, withholding under FATCA currently applies to payments of dividends on our common stock, but will only apply to payments of gross proceeds from a sale or other disposition of our common stock made after December 31, 2016. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of the tax. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their tax advisors regarding the possible implications of this legislation on their investment in our common stock and the entities through which they hold our common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30% withholding tax under FATCA.

UNDERWRITING

Under the terms and subject to the conditions contained in an underwriting agreement dated , 2016, we have agreed to sell to the underwriters named below, for whom Credit Suisse Securities (USA) LLC, Jefferies LLC and Leerink Partners LLC are acting as representatives, the following respective numbers of shares of common stock:

Underwriter	Number of Shares
Credit Suisse Securities (USA) LLC	
Jefferies LLC	
Leerink Partners LLC	
Wedbush Securities Inc	
Total	5,000,000

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased, other than those shares covered by the over-allotment option described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated.

We have granted to the underwriters a 30-day option to purchase on a pro rata basis up to 750,000 additional shares at the initial public offering price less the underwriting discounts and commissions. The option may be exercised only to cover any over-allotments of common stock.

The underwriters propose to offer the shares of common stock initially at the public offering price on the cover of this prospectus and to selling group members at that price less a selling concession of $ per share. The underwriters may allow a discount of $ per share on sales to other broker-dealers. After the initial public offering the representatives may change the public offering price and concession and discount to other broker-dealers.

The following table summarizes the compensation we will pay:

	Per Share		Total	
	Without Over-allotment	With Over-allotment	Without Over-allotment	With Over-allotment
Underwriting discounts and commissions paid by us	$	$	$	$

We estimate that our out-of-pocket expenses for this offering (not including any underwriting discounts and commissions) will be approximately $2.6 million. We have agreed to reimburse the underwriters for expenses of approximately $50,000 related to the clearance of this offering with the Financial Industry Regulatory Authority.

The underwriters have informed us that they do not expect sales to accounts over which the underwriters have discretionary authority to exceed 5% of the shares of common stock being offered.

We have agreed that we will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, or file with the Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, without the prior written consent of Credit Suisse Securities (USA) LLC, Jefferies LLC and Leerink Partners LLC for a period of 180 days after the date of this prospectus. The restrictions described in this paragraph do not apply in certain circumstances, including grants of employee stock options pursuant to our existing plans or issuances pursuant to the exercise of such employee options.

Our officers and directors and other stockholders and optionholders have agreed that they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, enter into a transaction that would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of Credit Suisse Securities (USA) LLC, Jefferies LLC and Leerink Partners LLC for a period of 180 days after the date of this prospectus.

We have agreed to indemnify the underwriters against liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect.

We have applied to list the shares of our common stock on The NASDAQ Global Market under the symbol "NTLA."

Prior to the 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 determining the initial public offering price, we and the representatives expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the underwriters;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies;
- the general condition of the securities markets at the time of the offering; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for our common stock, or that shares of our common stock will trade in the public market at or above the initial public offering price.

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and passive market making in accordance with Regulation M under the Exchange Act.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment transactions involve sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, creating a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing shares in the open market.

- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the 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 over-allotment option. If the underwriters sell more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.
- In passive market making, market makers in the common stock who are underwriters or prospective underwriters may, subject to limitations, make bids for or purchases of our common stock until the time, if any, at which a stabilizing bid is made.

These stabilizing transactions, syndicate covering transactions and penalty bids 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 the 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. These transactions may be effected on The NASDAQ Global Market or otherwise and, if commenced, may be discontinued at any time.

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make Internet distributions on the same basis as other allocations.

Other Relationships

Certain of the underwriters and their affiliates may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they may receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future. The underwriters are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. We have entered into an agreement with Wedbush Securities Inc., an underwriter in this offering, for advisory services pursuant to which Wedbush Securities Inc. will receive an agreed-upon fee not to exceed 0.35% of the net proceeds from this offering. In addition, Leerink Partners LLC, an underwriter in this offering, was the placement agent in our Series B financing in August 2015. Affiliates of Leerink Partners LLC were also investors in our Series B financing.

Selling Restrictions

Notice to Prospective Investors in Australia

This prospectus is not a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia, or Corporations Act, has not been lodged with the Australian Securities & Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus in Australia:

1. You confirm and warrant that you are either:
   - a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;

- a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to the Company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;
- a person associated with the Company under Section 708(12) of the Corporations Act; or
- a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this prospectus is void and incapable of acceptance.

2. You warrant and agree that you will not offer any of the securities issued to you pursuant to this prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

Notice to Canadian Residents

Resale Restrictions

The distribution of shares of common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

Representations of Canadian Purchasers

By purchasing shares of our common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the shares of common stock without the benefit of a prospectus qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106 – Prospectus Exemptions,
- the purchaser is a "permitted client" as defined in National Instrument 31-103 - Registration Requirements, Exemptions and Ongoing Registrant Obligations,
- where required by law, the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

Conflicts of Interest

Canadian purchasers are hereby notified that the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105 – *Underwriting Conflicts* from having to provide certain conflict of interest disclosure in this document.

Statutory Rights of Action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the offering memorandum (including any amendment thereto) such as this document contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Taxation and Eligibility for Investment

Canadian purchasers of our common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the shares of common stock in their particular circumstances and about the eligibility of the shares of common stock for investment by the purchaser under relevant Canadian legislation.

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area that has implemented the Prospectus Directive, or each, a Relevant Member State, each underwriter represents and agrees that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, or the Relevant Implementation Date, it has not made and will not make an offer of our common stock to the public in that Relevant Member State prior to the publication of a prospectus in relation to our common stock that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of our common stock to the public in that Relevant Member State at any time:

- to any legal entity that is a qualified investor as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the manager for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer of our common stock shall require the publication by the issuer or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and our common stock to be offered so as to enable an investor to decide to purchase or subscribe our common stock, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including Directive 2010/73/EU, to the extent implemented in each Relevant Member State) and includes any relevant implementing measure in each Relevant Member State.

Notice to Prospective Investors in Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong ("SFO") and any rules made under that Ordinance; or in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong ("CO") or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or

the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under that Ordinance.

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Notice to Prospective Investors in Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the prospectus will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Notice to Prospective Investors in Singapore

This prospectus has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares of common stock may not be circulated or distributed, nor may the common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares of common stock 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 (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares of common stock pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Notice to Prospective Investors in Switzerland

This document is not intended to constitute an offer or solicitation to purchase or invest in the securities described herein. The securities may not be publicly offered, sold or advertised, directly or indirectly, in, into or from Switzerland and will not be listed on the SIX Swiss Exchange or on any other exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the securities constitutes a prospectus as such term is understood pursuant to article 652a or article 1156 of the Swiss Code of Obligations or a listing prospectus within the meaning of the listing rules of the SIX Swiss Exchange or any other regulated trading facility in Switzerland, and neither this document nor any other offering or marketing material relating to the securities 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, nor the Company nor the securities have been or will be filed with or approved by any Swiss regulatory authority. The securities are not subject to the supervision by any Swiss regulatory authority, e.g., the Swiss Financial Markets Supervisory Authority FINMA (FINMA), and investors in the securities will not benefit from protection or supervision by such authority.

Notice to Prospective Investors in the United Kingdom

Each underwriter:

- has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, or the FSMA) in connection with the sale or issue of common stock in circumstances in which section 21 of the FSMA does not apply to such underwriter; and
- has complied with, and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of common stock in, from, or otherwise involving the United Kingdom.

This prospectus is directed solely at persons who (i) are outside the United Kingdom or (ii) have professional experience in matters relating to investments or (iii) are persons falling within Article 49(2)(a) to (d) of the FSMA (Financial Promotion) Order 2005 (all such persons together being referred to as "relevant persons"). This prospectus must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this prospectus relates is available only to relevant persons and will be engaged in with relevant persons only.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters related to this offering will be passed upon for the underwriters by Latham & Watkins LLP, Boston, Massachusetts.

EXPERTS

The consolidated financial statements as of December 31, 2014 and 2015, and for the period from May 7, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015, included in this prospectus, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report appearing herein. Such consolidated financial statements have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

CHANGE IN INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We dismissed PricewaterhouseCoopers LLP, or PwC, as our independent registered public accounting firm on November 11, 2015 effective as of that date. Our board of directors participated in and approved our change in independent registered public accounting firm. PwC issued their audit report, dated September 4, 2015, on our consolidated financial statements as of December 31, 2014 and for the period from May 7, 2014 (inception) to December 31, 2014. The report of PwC on our consolidated financial statements as of December 31, 2014 and for the period from May 7, 2014 (inception) to December 31, 2014 contained no adverse opinion or disclaimer of opinion and was not qualified or modified as to audit scope, accounting principle or uncertainty. During the period from May 7, 2014 (inception) to December 31, 2014 and the subsequent interim period through November 11, 2015, (i) there were no disagreements (as that term is used in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) with PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements if not resolved to the satisfaction of PwC would have caused PwC to make reference thereto in their report on our audited consolidated financial statements for the period from May 7, 2014 (inception) to December 31, 2014, and (ii) there were no "reportable events" as such term is defined in Item 304(a)(1)(v) of Regulation S-K.

We provided PwC with a copy of the disclosures set forth under the heading "Change in Independent Registered Public Accounting Firm" included in this prospectus and requested that PwC furnish a letter addressed to the Securities and Exchange Commission stating whether or not PwC agrees with statements related to them made by us in the disclosures above. PwC has furnished such letter dated December 22, 2015, a copy of which is filed as Exhibit 16.1 to the registration statement of which this prospectus forms a part.

We engaged Deloitte & Touche LLP, or Deloitte, as our independent registered public accounting firm on November 17, 2015. The decision to change our independent registered public accounting firm was approved by our board of directors. During the period from May 7, 2014 (inception) to December 31, 2014 and the subsequent period preceding our engagement of Deloitte as our independent registered public accounting firm on November 17, 2015, neither we nor anyone acting on our behalf consulted with Deloitte regarding: (1) the application of accounting principles to a specific completed or contemplated transaction; or the type of audit opinion that might be rendered on our consolidated financial statements and Deloitte did not provide any written report or oral advice that Deloitte concluded was an important factor considered by us in reaching a decision as to any such accounting, auditing or financial reporting issue; or (2) any matter that was either the subject of a disagreement, as that term is defined in S-K 304(a)(1)(iv) and the related instructions to S-K 304, or a reportable event, as that term is defined in S-K 304(a)(1)(v).

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 (File Number 333-210689) under the Securities Act with respect to the common stock we are offering by this prospectus. This prospectus does not contain all of the information included in the registration statement. For further information pertaining to us and our common stock, you should refer to the registration statement and to its exhibits. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

Upon the completion of the offering, we will be subject to the informational requirements of the Exchange Act and will file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read our SEC filings, including the registration statement, at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facility at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. We also maintain a website at www.intelliatx.com. Upon completion of the offering, you may access, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendment to those reported filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC.

You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Intellia Therapeutics, Inc.
Cambridge, Massachusetts

We have audited the accompanying consolidated balance sheets of Intellia Therapeutics, Inc. (successor to Intellia Therapeutics, LLC) and subsidiaries (the "Company") as of December 31, 2014 and 2015, and the related consolidated statements of operations, convertible preferred stock and stockholders' equity (deficit), and cash flows for the period from May 7, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, 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. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Intellia Therapeutics, Inc. and subsidiaries as of December 31, 2014 and 2015, and the results of their operations and their cash flows for the period from May 7, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015, in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
March 16, 2016 (April 25, 2016 as to the effects of the reverse stock split discussed in Note 2)

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
CONSOLIDATED BALANCE SHEETS
(in thousands, except unit, share and per share data)

	December 31, 2014	December 31, 2015	Pro Forma December 31, 2015 (unaudited)
ASSETS			
Current assets:			
Cash and cash equivalents	$ 9,845	$ 75,816	$ 75,816
Accounts receivable	—	1,000	1,000
Prepaid expenses and other current assets	285	810	810
Total current assets	10,130	77,626	77,626
Property and equipment, net	308	2,708	2,708
Other assets	256	1,805	1,805
Total assets	$ 10,694	$ 82,139	$ 82,139
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)			
Current liabilities:			
Accounts payable	$ 199	$ 1,360	$ 1,360
Accrued expenses	2,156	2,788	2,788
Current portion of deferred revenue	—	6,547	6,547
Total current liabilities	2,355	10,695	10,695
Deferred revenue, net of current portion	—	3,765	3,765
Other long-term liabilities	773	323	323
Commitments and contingencies (Note 6)			
Convertible preferred stock (Series B, Series A-2, Series A-1, Junior and Founder), $0.0001 par value; no shares authorized, issued or outstanding as of December 31, 2014 and 36,500,000 shares authorized and 36,316,628 shares issued and outstanding as of December 31, 2015; aggregate liquidation preference of $95,946 as of December 31, 2015; no shares issued and outstanding, pro forma as of December 31, 2015 (unaudited)	—	88,557	—
Stockholders' equity (deficit)			
Preferred units (Class A-2, Class A-1 and Junior), no par value; 19,348,694 and no units issued and outstanding as of December 31, 2014 and 2015, respectively; aggregate liquidation preference of $21,516 as of December 31, 2014	16,448	—	—
Common units, no par value; 2,298,000 units and no units issued and outstanding as of December 31, 2014 and 2015, respectively	607	—	—
Incentive units, no par value; 1,558,498 and no units issued and outstanding as of December 31, 2014 and 2015, respectively	50	—	—
Common stock, $0.0001 par value; no shares authorized, issued or outstanding as of December 31, 2014 and 50,000,000 shares authorized and 2,558,755 shares issued and outstanding as of December 31, 2015; 26,040,712 shares issued and outstanding, pro forma as of December 31, 2015 (unaudited)	—	—	3
Additional paid-in capital	—	735	89,289
Accumulated deficit	(9,539)	(21,936)	(21,936)
Total stockholders' equity (deficit)	7,566	(21,201)	67,356
Total liabilities and stockholders' equity (deficit)	$ 10,694	$ 82,139	$ 82,139

The accompanying notes are an integral part of these consolidated financial statements.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per unit and per share data)

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
Collaboration revenue	$ —	$ 6,044
Operating expenses:		
Research and development	1,105	11,170
In-process research and development	6,055	—
General and administrative	2,379	8,283
Total operating expenses	9,539	19,453
Loss before income taxes	(9,539)	(13,409)
Benefit from income taxes	—	1,012
Net loss	$ (9,539)	$ (12,397)
Net loss per common unit, basic and diluted	$ (11.55)	$ —
Net loss per share attributable to common stockholders, basic and diluted	$ —	$ (51.02)
Weighted average common units outstanding, basic and diluted	826	—
Weighted average shares outstanding, basic and diluted	—	243
Pro forma net loss per share, basic and diluted (unaudited)		$ (0.70)
Pro forma weighted average shares outstanding, basic and diluted (unaudited)		17,664

The accompanying notes are an integral part of these consolidated financial statements.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)
(in thousands, except unit and share data)

	Series A-1, Series A-2 and Junior Preferred		Common		Common		Incentive		Additional Paid-In	Accumulated	Total Stockholders'	Convertible Preferred Stock	
	Units	Amount	Units	Amount	Shares	Amount	Units	Amount	Capital	Deficit	Equity	Shares	Amount
Balance at May 7, 2014 (inception)	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$ —	—	$ —
Issuance of Junior Preferred Units in connection with the Caribou agreements	8,110,599	4,055	—	—	—	—	—	—	—	—	4,055	—	—
Issuance of Class A-1 and Class A-2 Preferred Units, net of issuance costs of $258	11,238,095	12,393	—	—	—	—	—	—	—	—	12,393	—	—
Issuance of common units	—	—	946,237	349	—	—	—	—	—	—	349	—	—
Equity-based compensation	—	—	1,351,763	258	—	—	1,558,498	50	—	—	308	—	—
Net loss	—	—	—	—	—	—	—	—	—	(9,539)	(9,539)	—	—
Balance at December 31, 2014	19,348,694	16,448	2,298,000	607	—	—	1,558,498	50	—	(9,539)	7,566	—	—
Issuance of Class A-2 Preferred Units net of issuance costs of $16	1,333,333	1,984	—	—	—	—	—	—	—	—	1,984	—	—
Allocation from Novartis collaboration to carrying value of Preferred Shares	—	2,644	—	—	—	—	—	—	—	—	2,644	—	—
Tax provision associated with intraperiod tax allocation	—	(1,012)	—	—	—	—	—	—	—	—	(1,012)	—	—
Effect of Reorganization	(20,682,027)	(20,064)	(2,298,000)	(607)	1,713,104	—	(1,558,498)	(50)	50	—	(20,671)	22,980,027	20,671
Issuance of Series B Preferred Shares, net of issuance costs of $2,754	—	—	—	—	—	—	—	—	—	—	—	13,336,601	67,263
Equity-based compensation	—	—	—	—	845,651	—	—	—	685	—	685	—	623
Net loss	—	—	—	—	—	—	—	—	—	(12,397)	(12,397)	—	—
Balance at December 31, 2015	—	$ —	—	$ —	2,558,755	$ —	—	$ —	$ 735	$ (21,936)	$ (21,201)	36,316,628	$ 88,557

The accompanying notes are an integral part of these consolidated financial statements.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
CONSOLIDATED STATEMENTS OF CASH FLOWS
(amounts in thousands)

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
Cash flows from operating activities:		
Net loss	$ (9,539)	$ (12,397)
Adjustments to reconcile net loss to net cash used in operating activities:		
Acquired in-process research and development	6,055	—
Depreciation and amortization expense	3	328
Loss on disposal of property and equipment	—	9
Equity-based compensation expense	308	1,308
Benefit from intraperiod tax allocation	—	(1,012)
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(285)	(525)
Accounts payable	163	335
Accrued expenses	1,056	805
Deferred revenue	—	9,312
Other assets	(256)	(76)
Other long-term liabilities	173	150
Net cash used in operating activities	(2,322)	(1,763)
Cash flows from investing activities:		
Purchases of property and equipment	(275)	(2,554)
Acquisition of in-process research and development	(300)	—
Net cash used in investing activities	(575)	(2,554)
Cash flows from financing activities:		
Payments to acquire in-process research and development	—	(1,100)
Proceeds from sale of Class A-1 preferred units, Class A-2 preferred units and Series B preferred stock	12,651	74,661
Payment of preferred unit and preferred stock issuance costs	(258)	(2,671)
Proceeds from sale of common units	349	—
Payment of proposed public offering costs	—	(602)
Net cash provided by financing activities	12,742	70,288
Net increase in cash and cash equivalents	9,845	65,971
Cash and cash equivalents at beginning of period	—	9,845
Cash and cash equivalents at end of period	$ 9,845	$ 75,816
Supplemental disclosure of noncash investing and financing activities:		
Purchases of property and equipment unpaid at period end	$ 36	$ 219
Financing costs incurred but unpaid at period end	—	970
Noncash portion of acquired in-process research and development	4,055	—
Acquisition of in-process research and development unpaid at period end	1,700	600

The accompanying notes are an integral part of these consolidated financial statements.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of the Business

Intellia Therapeutics was formed in May 2014 in the state of Delaware as AZRN, Inc. and amended its certificate of incorporation in July 2014 to change its name from AZRN, Inc. to Intellia Therapeutics, Inc. In July 2014, Intellia Therapeutics, LLC was formed as the parent company of Intellia Therapeutics, Inc. In August 2015, the Company completed a series of transactions pursuant to which Intellia Therapeutics, LLC merged with and into its C corporation subsidiary, Intellia Therapeutics, Inc., with Intellia Therapeutics, Inc. continuing to exist as the surviving corporation (the "Reorganization"). In connection with the Reorganization, all of the outstanding common and preferred unitholders of Intellia Therapeutics, LLC received shares of preferred stock of Intellia Therapeutics, Inc., and holders of incentive units in Intellia Therapeutics, LLC received shares of restricted common stock in Intellia Therapeutics, Inc. There was no impact on the consolidated financial statements as a result of the Reorganization except for the reclassification of members' equity to stockholders' equity or temporary equity.

Intellia Therapeutics, LLC (collectively referred to with its wholly owned, controlled subsidiary, Intellia Therapeutics, Inc., as "Intellia" or the "Company") is a gene editing company focused on developing potentially curative therapeutics utilizing a recently developed biological tool known as CRISPR/Cas9.

The Company is subject to risks and uncertainties common to early stage companies in the biotechnology industry, including, but not limited to, development by competitors of more advanced or effective therapies, dependence on key executives, protection of and dependence on proprietary technology, compliance with government regulations and ability to secure additional capital to fund operations. Programs currently under development will require significant additional research and development efforts, including preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel and infrastructure and extensive compliance-reporting capabilities. Even if the Company's product development efforts are successful, it is uncertain when, if ever, the Company will realize significant revenue from product sales.

The accompanying financial statements have been prepared on a basis that assumes the Company will continue as a going concern and contemplates the realization of assets and satisfaction of liabilities and commitments in the ordinary course of business. Through December 31, 2015, the Company has funded its operations with proceeds from the sale of capital stock and with payments received under its collaboration arrangement with Novartis Institutes for BioMedical Research, Inc. ("Novartis"). Since its inception, the Company has incurred recurring losses, including net losses of $9.5 million for the period from May 7, 2014 (inception) to December 31, 2014 and $12.4 million for the year ended December 31, 2015. The Company expects to continue to generate operating losses in the foreseeable future.

The Company expects that its cash and cash equivalents of $75.8 million as of December 31, 2015 will be sufficient to fund its operations for at least the next twelve months. The future of the Company beyond that point is largely dependent on its ability to finance its operations through additional capital raising transactions and collaborations. Although the Company has been successful in raising capital in the past, there is no assurance that additional funding will be available on acceptable terms, if at all. The Company may seek additional funding through sales of equity or convertible debt securities or additional collaboration agreements. The terms of any financing may adversely affect the holdings or the rights of the Company's security holders. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting the Company's ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. The Company may not be able to enter into additional collaboration arrangements. The Company's inability to raise capital as and when needed could have a negative impact on its financial condition and ability to pursue its business strategies. The Company could be forced to curtail the development of a product candidate, reduce or delay its development program or one or more of its other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase its

expenditures and undertake development or commercialization activities at its own expense, which could adversely affect its business prospects.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements prior to the Reorganization include the accounts of Intellia Therapeutics, LLC and its wholly owned, controlled subsidiary, Intellia Therapeutics, Inc. The consolidated financial statements following the Reorganization include the accounts of Intellia Therapeutics, Inc. and its wholly owned, controlled subsidiary, Intellia Securities Corp. All intercompany balances and transactions have been eliminated in consolidation. The only item comprising comprehensive loss is net loss.

The Company's Board of Directors and stockholders approved a one-for-1.7 reverse stock split of the Company's common stock that became effective on April 25, 2016. All share and per share amounts in the consolidated financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to this reverse stock split.

Unaudited Pro Forma Information

On September 4, 2015, the Company's board of directors authorized the Company to file a confidential draft registration statement with the Securities and Exchange Commission to sell shares of its common stock to the public. Upon the closing of an initial public offering, all of the Company's outstanding shares of preferred stock will automatically convert into shares of common stock. The unaudited pro forma consolidated balance sheet information as of December 31, 2015 reflects the conversion of all outstanding shares of preferred stock into common stock upon the closing of an initial public offering.

For purposes of calculating pro forma basic and diluted loss per share, all shares of preferred stock outstanding as of December 31, 2015 have been treated as if they had been converted to common stock on May 7, 2014 (inception) or on the issuance date of the preferred stock, if later.

Use of Estimates

The preparation of the Company's consolidated financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of expenses during the reporting periods. Significant estimates and assumptions reflected in these consolidated financial statements include, but are not limited to, revenue recognition, the recognition of research and development expenses and the valuation of common and incentive units. Estimates are periodically reviewed in light of changes in circumstances, facts and experiences. Actual results may differ materially from management's estimates, judgments and assumptions.

Subsequent Events

The Company considers events or transactions that occur after the balance sheet date but before the financial statements are issued to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. The Company evaluated all events and transactions through March 16, 2016, the date the consolidated financial statements as of December 31, 2014 and 2015 were issued.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Fair Value Measurements

The Company classifies fair value based measurements using a three-level hierarchy that prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows: Level 1, quoted market prices in active markets for identical assets or liabilities; Level 2, observable inputs other than quoted market prices included in Level 1 such as quoted market prices for markets that are not active or other inputs that are observable or can be corroborated by observable market data; and Level 3, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities, including certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The Company's financial instruments consisted primarily of cash equivalents, accounts receivable and accounts payable. As of December 31, 2015, the Company's financial assets recognized at fair value consisted of the following:

	Fair Value as of December 31, 2015			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Cash equivalents ..	$30,000	$30,000	$ —	$ —
Total	$30,000	$30,000	$ —	$ —

Cash Equivalents

The Company considers all highly liquid investments with maturities of three months or less when purchased to be cash equivalents. As of December 31, 2015, cash equivalents consisted of interest-bearing money market accounts.

Concentrations of Credit Risk

The Company's cash and cash equivalents may potentially be subject to concentrations of credit risk. The Company generally maintains balances in various operating accounts in excess of federally insured limits with financial institutions that management believes to be of high credit quality.

Property and Equipment

The Company records property and equipment at cost and recognizes depreciation and amortization using the straight-line method over the following estimated useful lives of the respective assets:

Asset Category	Useful Life
Laboratory equipment	5 years
Office furniture and equipment	5 years
Computer equipment	3 years
Leasehold improvements	5 years or term of respective lease, if shorter

Expenditures for repairs and maintenance of assets are expensed as incurred. Upon retirement or sale, the cost of assets disposed and the corresponding accumulated depreciation are removed from the related accounts and any resulting gain or loss is reflected in the results of operations.

Impairment of Long-Lived Assets

The Company tests long-lived assets to be held and used, including property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount of assets or asset group may not

be fully recoverable. Factors that the Company considers in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends and significant changes or planned changes in the use of the assets.

Evaluation of recoverability of the asset or asset group is based on an estimate of undiscounted future cash flows resulting from the use of the asset or asset group and its eventual disposition. In the event that such cash flows are not expected to be sufficient to recover the carrying amount of the asset or asset group, the assets are written down to their estimated fair values. The impairment loss would be based on the excess of the carrying value of the impaired asset over its fair value, determined based on discounted cash flows. To date, the Company has not recorded any impairment losses on long-lived assets.

Deferred Issuance Costs

Deferred issuance costs, which consist of direct incremental legal and professional accounting fees relating to the proposed public offering, are capitalized. The deferred issuance costs will be offset against public offering proceeds upon the consummation of the offering. In the event the offering is terminated, deferred issuance costs will be expensed. As of December 31, 2015, the Company capitalized $1.5 million of deferred issuance costs related to the proposed public offering, which are included in other long-term assets on the consolidated balance sheet.

Income Taxes

Intellia Therapeutics, LLC was a Delaware limited liability company for federal and state income tax purposes; therefore, the Company's taxable losses were allocated to the members in accordance with the LLC operating agreement. Accordingly, no federal or state income tax was assessed to Intellia Therapeutics, LLC; however Intellia Therapeutics, Inc. is subject to federal, state and local income taxes and is included in the consolidated tax position for all periods presented. Accordingly, the Reorganization and change in tax status of the reporting entity did not have an impact on the consolidated tax provision.

The Company accounts for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences attributable to differences between carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax reporting purposes and for operating loss and tax credit carryforwards. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes.

The Company's deferred tax assets and liabilities are measured using enacted tax rates expected to apply in the years in which these temporary differences are expected to be recovered or settled. A valuation allowance is recorded to reduce deferred tax assets if it is determined that it is more likely than not that all or a portion of the deferred tax asset will not be realized. The Company considers many factors when assessing the likelihood of future realization of deferred tax assets, including recent earnings results, expectations of future taxable income, carryforward periods available and other relevant factors. The Company records changes in the required valuation allowance in the period that the determination is made.

The Company assesses its income tax positions and records tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances and information available as of the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, the Company records the largest amount of tax benefit with a greater than 50.0% likelihood of being realized upon ultimate settlement with a taxing authority having full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, the Company does not recognize a tax benefit in the financial statements. The Company records interest and penalties related to uncertain tax positions, if applicable, as a component of income tax expense.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Convertible Preferred Stock

The Company classifies stock that is redeemable in circumstances outside of the Company's control outside of permanent equity. The Company records convertible preferred stock at fair value upon issuance, net of any issuance costs or discounts. No accretion has been recognized as the contingent events that could give rise to redemption are not deemed probable.

Revenue Recognition

The Company recognizes revenue for each unit of accounting when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the seller's price to the buyer is fixed or determinable; and collectability is reasonably assured.

The terms of the Company's collaboration and license agreements contain multiple deliverables, which include licenses to CRISPR/Cas9-based therapeutic products directed to specific targets, referred to as exclusive licenses, as well as research and development activities to be performed by the Company on behalf of the collaboration partner related to the licensed targets. Payments that the Company may receive under these types of agreements include non-refundable technology access fees, payments for research activities, payments based upon the achievement of specified milestones and royalties on any resulting net product sales.

Multiple-Element Arrangements

The Company's collaboration and license agreements represent multiple-element arrangements. The Company evaluates its collaborative agreements for proper classification in its statements of operations and comprehensive loss based on the nature of the underlying activity. The Company generally reflects as revenue amounts due under its collaborative agreements related to reimbursement of development activities as the Company is generally the principal under the arrangement.

The Company evaluates multiple-element arrangements to determine (i) the deliverables included in the arrangement and (ii) whether the individual deliverables represent separate units of accounting or whether they must be accounted for as a combined unit of accounting. When deliverables are separable, consideration received is allocated to the separate units of accounting based on the relative selling price method and the appropriate revenue recognition principles are applied to each unit. When the Company determines that an arrangement should be accounted for as a single unit of accounting, the Company must determine the period over which the performance obligations will be performed and revenue will be recognized. This evaluation requires the Company to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. Deliverables are considered separate units of accounting provided that (i) the delivered item has value to the customer on a standalone basis and (ii) if the arrangement includes a general right of return with respect to the delivered item, delivery or performance of the undelivered item is considered probable and substantially in the Company's control. In assessing whether an item has standalone value, the Company considers factors such as the research, development, manufacturing and commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. In addition, the Company considers whether the collaboration partner can use any other deliverable for its intended purpose without the receipt of the remaining deliverable, whether the value of the deliverable is dependent on the undelivered item, and whether there are other vendors that can provide the undelivered items.

The consideration received under the arrangement that is fixed or determinable is then allocated among the separate units of accounting based on the relative selling prices of the separate units of accounting. The Company determines the selling price of a unit of accounting within each arrangement using vendor-specific objective evidence of selling price, if available; third-party evidence of selling price if vendor-specific objective evidence is not available; or best estimate of selling price, if neither vendor-specific objective evidence nor third-party

evidence is available. Determining the best estimate of selling price for a unit of accounting requires significant judgment. In developing the best estimate of selling price for a unit of accounting, the Company considers applicable market conditions and relevant entity-specific factors, including factors that were contemplated in negotiating the agreement with the customer and estimated costs. The Company validates the best estimate of selling price for units of accounting by evaluating whether changes in the key assumptions used to determine the best estimate of selling price will have a significant effect on the allocation of arrangement consideration between multiple units of accounting.

The Company recognizes arrangement consideration allocated to each unit of accounting when all of the revenue recognition criteria are satisfied for that particular unit of accounting. In the event that a deliverable does not represent a separate unit of accounting, the Company recognizes revenue from the combined unit of accounting over the contractual or estimated performance period for the undelivered items, which is typically the term of the Company's research and development obligations. If there is no discernible pattern of performance or objectively measurable performance measures do not exist, then the Company recognizes revenue under the arrangement on a straight-line basis over the period the Company is expected to complete its performance obligations. Conversely, if the pattern of performance over which the service is provided to the customer can be determined and objectively measurable performance measures exist, then the Company recognizes revenue under the arrangement using the proportional performance method. Revenue recognized is limited to the lesser of the cumulative amount of payments received or the cumulative amount of revenue earned, as determined using the straight-line method or proportional performance method, as applicable, as of the period ending date.

Significant management judgment is required in determining the level of effort required under an arrangement and the period over which the Company is expected to complete its performance obligations under an arrangement. Steering committee services that are not inconsequential or perfunctory and that are determined to be performance obligations are combined with other research services or performance obligations required under an arrangement, if any, in determining the level of effort required in an arrangement and the period over which the Company expects to complete its aggregate performance obligations.

Milestone Revenue

The Company's collaboration and license agreements include contingent milestone payments related to specific development, regulatory and sales-based milestones. Development and regulatory milestones are typically payable when a product candidate initiates or advances in clinical trial phases, upon submission for marketing approval with regulatory authorities, and upon receipt of actual marketing approvals for a therapeutic or for additional indications. Sales-based milestones are typically payable when annual sales reach specified levels.

The Company evaluates whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. This evaluation includes an assessment of whether: (i) the consideration is commensurate with either the Company's performance to achieve the milestone or the enhancement of the value of the delivered item as a result of a specific outcome resulting from the Company's performance to achieve the milestone, (ii) the consideration relates solely to past performance, and (iii) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. The Company evaluates factors such as the scientific, clinical, regulatory, commercial and other risks that must be overcome to achieve the particular milestone and the level of effort and investment required to achieve the particular milestone in making this assessment. There is considerable judgment involved in determining whether a milestone satisfies all of the criteria required to conclude that a milestone is substantive. The Company will recognize revenue in its entirety upon successful accomplishment of any substantive milestones, assuming all other revenue recognition criteria are met. Milestones that are not considered substantive are recognized as earned if there are no remaining performance obligations or over the remaining period of performance, with a cumulative catch-up being recognized for the elapsed portion of the period of performance, assuming all other revenue recognition criteria are met.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Non-refundable research, development and regulatory milestones that are expected to be achieved as a result of the Company's efforts during the period of its performance obligations under the collaboration and license agreements may be considered to be substantive and are recognized as revenue upon the achievement of the milestone, assuming all other revenue recognition criteria are met. If not considered to be substantive, revenue from achievement of milestones is initially deferred and recognized over the remaining term of its performance obligations. Milestones that are not considered substantive because the Company does not contribute effort to their achievement are recognized as revenue upon achievement, assuming all other revenue recognition criteria are met, as there are no undelivered elements remaining and no continuing performance obligations on the Company's part.

Amounts received prior to satisfying the revenue recognition criteria listed above are recorded as deferred revenue in the accompanying balance sheets. Although the Company follows detailed guidelines in measuring revenue, certain judgments affect the application of the Company's revenue policy. For example, in connection with its existing collaboration agreement, the Company has recorded on its balance sheet short-term and long-term deferred revenue based on its best estimate of when such revenue will be recognized. However, this estimate is based on the Company's current research plan and, if its research plan should change in the future, the Company may recognize a different amount of deferred revenue over the following 12-month period.

The estimate of deferred revenue also reflects management's estimate of the periods of the Company's involvement in its collaboration. The Company's primary performance obligations under this collaboration consist of research and development services. In certain instances, the timing of satisfying these obligations can be difficult to estimate. Accordingly, the Company's estimates may change in the future. Such changes to estimates would result in a change in prospective revenue recognition amounts. If these estimates and judgments change over the course of any of the Company's collaborative agreements, it may affect the timing and amount of revenue that the Company will recognize and record in future periods.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development expenses consist of salaries, equity-based compensation and benefits of employees, lab supplies and materials, facilities expenses, overhead expenses, fees paid to subcontractors and contract research organizations and other external expenses.

The Company records payments made for research and development services prior to the services being rendered as prepaid expense on the consolidated balance sheet and expenses them as the services are provided. Contracts for multi-year research and development services are recorded on a straight-line basis over each annual contractual period based on the total contractual fee when the services rendered are expected to be substantially equivalent over the term of the arrangement. The cost of obtaining licenses for certain technology or intellectual property is recorded to research and development expense when incurred if the licensed technology or intellectual property has not yet reached technological feasibility and has no alternative future use.

Equity-Based Compensation

The Company measures employee equity-based compensation based on the grant date fair value of the equity awards and recognizes equity-based compensation expense, net of estimated forfeitures, on a straight-line basis over the requisite service period of the awards, which is generally the vesting period of the respective award. Compensation expense is recognized for only the portion of awards that are expected to vest. In developing a forfeiture rate estimate, the Company has considered its historical experience to estimate pre-vesting forfeitures for service-based awards. The Company estimates forfeitures at the time of grant and revises those estimates in subsequent periods if actual forfeitures differ from those estimates.

The Company measures equity awards granted to consultants and non-employees based on the fair value of the award on the date of grant. Compensation expense is recognized over the period during which services are rendered by such consultants and non-employees until completed. At the end of each financial reporting period

prior to completion of the service, the fair value of these awards is remeasured using the then-current fair value of the common or incentive units.

The Company classifies equity-based compensation expense in its consolidated statement of operations in the same manner in which the award recipient's salary and related costs are classified or in which the award recipient's service payments are classified.

Earnings (Loss) per Unit or Share

The Company calculates basic earnings (loss) per common unit by dividing income (loss) allocable to common unitholders by the weighted average number of common units outstanding, calculates basic earnings (loss) per incentive unit by dividing income (loss) allocable to incentive unitholders by the weighted average number of incentive units outstanding and calculates basic earnings (loss) per share by dividing income (loss) allocable to common stockholders by the weighted average number of common shares outstanding. During periods of income, the Company allocates to participating securities a proportional share of income determined by dividing total weighted average participating securities by the sum of the total weighted average common shares and participating securities (the "two-class method"). The Company's preferred units, preferred stock, common units, common stock, incentive units and restricted common stock have rights to earnings and to participate in distributions of the Company and are therefore considered to be participating securities. Participating securities have the effect of diluting both basic and diluted earnings per share during periods of income. During periods of loss, the Company allocates no loss to preferred units or preferred stock because they have no contractual obligation to share in the losses of the Company. The Company computes diluted earnings (loss) per share after giving consideration to the dilutive effect of preferred units, preferred stock, common units, common stock, incentive units and restricted common stock that are outstanding during the period, except where such units would be anti-dilutive.

Segment Information

The Company manages its operations as a single segment for the purposes of assessing performance and making operating decisions. The Company's one business segment is the development of gene editing-based therapies. All of the Company's assets are held in the United States. To date, all of the Company's revenue has been generated in the United States from a single arrangement.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers (Topic 606),* which supersedes existing revenue recognition guidance. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The standard defines a five-step process to achieve this principle and will require companies to use more judgment and make more estimates than under the current guidance. The Company expects that these judgments and estimates will include identifying performance obligations in the customer contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. ASU 2014-09 also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. In July 2015, the FASB voted to delay the effective date of this standard such that ASU 2014-09 will be effective for the Company for annual periods beginning after December 15, 2017 and for interim periods within those fiscal years. Early adoption of the standard is permitted for annual periods beginning after December 15, 2016. The Company is evaluating the impact that the adoption of ASU 2014-09 will have on its consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15*, Disclosure of Uncertainties About an Entity's Ability to Continue as a Going Concern*. ASU 2014-15 amends Accounting Standards Codification ("ASC") 205-40,

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Presentation of Financial Statements—Going Concern, by providing guidance on determining when and how reporting entities must disclose going-concern uncertainties in their financial statements, including requiring management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date of issuance of the entity's financial statements and providing certain disclosures if there is substantial doubt about the entity's ability to continue as a going concern. ASU 2014-15 will be effective for the Company for annual periods ending after December 15, 2016 and interim periods within annual periods beginning after December 15, 2016. The Company is evaluating the potential impact of this ASU on its consolidated financial statements but believes its adoption will have no impact on its financial position, results of operations or cash flows.

In February 2015, the FASB issued ASU No. 2015-02, *Consolidation (Topic 810)—Amendments to the Consolidation Analysis*. ASU 2015-02 modifies the existing consolidation guidance in ASC 810, *Consolidation*, by significantly changing the consolidation analysis reporting organizations are required to complete in determining whether to consolidate certain legal entities. ASU 2015-02 requires either a retrospective or modified retrospective approach to adoption and will be effective for the Company for annual periods beginning after December 15, 2015 and for interim periods within those fiscal years. The Company is evaluating the impact of the adoption of ASU 2015-02 on its consolidated financial statements but believes its adoption will have no material impact on its financial position, results of operations or cash flows.

In April 2015, the FASB issued ASU No. 2015-05, *Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*. ASU 2015-05 amends ASC 350-40, *Internal-Use Software*, by providing customers with guidance on determining whether a cloud computing arrangement contains a software license that should be accounted for as internal-use software. ASU 2015-05 will be effective for the Company for annual periods beginning after December 15, 2015 and interim periods within annual periods beginning after December 15, 2016. The Company is evaluating the impact that this ASU may have on its consolidated financial statements, if any.

In November 2015, the FASB issued ASU No. 2015-17, *Balance Sheet Classification of Deferred Taxes*. ASU 2015-17 amends ASC 740, *Income Taxes*, by requiring entities to present deferred tax assets and deferred tax liabilities as noncurrent in a classified balance sheet. ASU 2015-17 would be effective for annual periods beginning after December 15, 2016 and interim periods within those fiscal years. Early adoption is permitted. The Company elected to early adopt this guidance on a prospective basis beginning with its year ending as of December 31, 2015; however there was no material impact to its financial position as the Company carries a full valuation allowance.

In February 2016, the FASB issued ASU 2016-02, *Leases*. ASU 2016-02 amends ASC 840, *Leases*, by introducing a lessee model that requires balance sheet recognition of most leases. The Company is the lessee under certain leases that are accounted for as operating leases. The proposed changes would require that substantially all of the Company's operating leases be recognized as assets and liabilities on the Company's balance sheet. ASU 2016-02 will be effective for public companies for annual periods beginning after December 15, 2018 and interim periods within those fiscal years and for private companies for annual periods beginning after December 15, 2019 and interim periods within fiscal years beginning after December 15, 2020. The Company is evaluating the impact that the adoption of ASU 2016-02 will have on its consolidated financial statements.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

3. Property and Equipment, net

Property and equipment, net consisted of the following:

	December 31,	
	2014	2015
	(in thousands)	
Laboratory equipment	$ 36	$2,518
Office furniture and equipment	123	245
Computer equipment	77	121
Leasehold improvements	75	155
Property and equipment	311	3,039
Less: Accumulated depreciation and amortization	(3)	(331)
Property and equipment, net	$308	$2,708

Depreciation and amortization expense was $3,000 for the period from May 7, 2014 (inception) to December 31, 2014 and $0.3 million for the year ended December 31, 2015.

4. Accrued Expenses

Accrued expenses consisted of the following:

	December 31,	
	2014	2015
	(in thousands)	
Employee compensation	$ 458	$1,281
In-process research and development obligation	1,100	600
Research and development and professional expenses	598	907
	$2,156	$2,788

In July 2014, the Company entered into agreements with Caribou Biosciences, Inc. (“Caribou”), under which the Company received a license for certain patents and limited research and development services from Caribou. The in-process research and development obligation represents the portion of the Company’s obligation under these agreements that is attributable to the license. Refer to Note 6, *Commitments and Contingencies*, for additional information regarding these agreements.

5. Income Taxes

The Company did not record income tax benefits for the operating losses incurred during the periods presented due to its uncertainty of realizing a tax benefit from the deferred tax assets.

Intraperiod tax allocation rules require the allocation of the provision for income taxes between continuing operations and other categories of earnings, such as items credited directly to members’ equity. In periods in which the Company has a year-to-date pre-tax loss from continuing operations and has pre-tax income in other categories of earnings, the Company must allocate the income tax provision to the other categories of earnings. The Company then records a related income tax benefit in continuing operations.

During the year ended December 31, 2015, the Company allocated $2.6 million from the $30.0 million total fixed amount of consideration under the collaboration agreement with Novartis to the carrying value of the Class A-1 and A-2 Preferred Units to record those units based on their fair value at date of issuance. As a result of this allocation, during the year ended December 31, 2015, the Company recorded an income tax provision of $1.0

million within members' equity as well as a corresponding income tax benefit of $1.0 million within continuing operations. Refer to Note 8, *Collaboration*, for additional information regarding this difference in value.

A reconciliation of the federal statutory income tax rate and the Company's effective income tax rate is as follows:

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
Federal statutory income tax rate	(34.0)%	(34.0)%
State income taxes	(4.5)	(4.4)
Intraperiod tax allocation	—	(6.7)
Permanent items	1.1	3.3
Research and development tax credits	(0.6)	(1.8)
Change in valuation allowance	38.0	36.0
Effective income tax rate	—%	(7.6)%

The Company's net deferred tax assets (liabilities) consisted of the following:

	December 31,	
	2014	2015
	(in thousands)	
Deferred tax assets:		
Intangibles, including acquired in-process research and development	$ 2,264	$ 2,151
Capitalized start-up costs	745	830
Net operating loss carryforwards	495	4,653
Research and development credit carryforwards	59	418
Accruals and allowances	61	211
Gross deferred tax assets	3,624	8,263
Deferred tax asset valuation allowance	(3,624)	(7,452)
Total deferred tax assets	—	811
Deferred tax liabilities:		
Deferred revenue	—	(811)
Total deferred tax liabilities	—	(811)
Net deferred tax asset (liability)	$ —	$ —

As of December 31, 2015, the Company had federal and state net operating loss carryforwards of $12.5 million and $9.4 million, respectively, which begin to expire in 2034. As of December 31, 2015, the Company had federal and state research and development tax credits carryforwards of approximately $0.3 million and $0.2 million, which begin to expire in 2034 and 2029, respectively.

The Company evaluated the expected realizability of its net deferred tax assets as of December 31, 2014 and 2015 and determined that there was significant negative evidence due to its net operating loss position and insufficient positive evidence to support the realizability of these net deferred tax assets. The Company concluded it is more likely than not that its net deferred tax assets would not be realized in the future; therefore, the Company has provided a full valuation allowance against its net deferred tax asset balance as of December 31, 2014 and 2015. The valuation allowance increased by $3.6 million in 2014 and $3.8 million in 2015.

Utilization of the net operating loss and research and development credit carryforwards may be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986, as amended, due to

ownership changes that have occurred previously or that could occur in the future. These ownership changes may limit the amount of net operating loss and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax expense, respectively. The Company has not yet conducted a study to assess whether a change of control, as defined in Section 382, has occurred or whether there have been multiple changes in control since inception.

As of December 31, 2015, the Company had not recorded any unrecognized tax benefits. The Company files income tax returns in the United States federal tax jurisdiction and Massachusetts and various other state tax jurisdictions. The Company is subject to examination by the Internal Revenue Service and Massachusetts taxing authorities. There are currently no pending tax examinations.

6. Commitments and Contingencies

Commitments

Caribou Agreement

In July 2014, the Company entered into a license agreement with Caribou for an exclusive, worldwide license for a defined field of human therapeutic, prophylactic, and palliative uses, except for anti-fungal and anti-microbial uses, of any CRISPR/Cas9-related patents and applications owned, controlled or licensed by Caribou, as well as companion diagnostics to the Company's products or product candidates. This license agreement also includes any CRISPR/Cas9-related intellectual property developed by Caribou between July 16, 2014 and, at least, July 16, 2016 for the Company's field of use.

Pursuant to a services agreement entered into with Caribou contemporaneously with the Caribou license agreement, the Company is also receiving two years of research and development services from Caribou. Under the services agreement's research plan, Caribou primarily focuses on the improvement and further development of the CRISPR/Cas9 system and its components.

In exchange for 8,110,599 of the Company's Junior Preferred Units, Caribou, through its wholly owned subsidiary, Caribou Therapeutics Holdco, LLC, contributed to the Company all of its membership interests of Intellia, LLC. Intellia, LLC was a holding company that was the original party to the license agreement with Caribou and otherwise had no other assets or operations prior to being merged with and into the Company in July 2014. In addition, the Company is paying Caribou $5.0 million over the term of the two-year services agreement and agreed to pay 30.0% of Caribou's patent prosecution, filing, and maintenance costs for such licensed intellectual property under the license agreement, amounting to $1.1 million paid through December 31, 2015. The Company granted Caribou an exclusive, royalty-free, worldwide license to any CRISPR/Cas9 patents and know-how for research, development and commercialization activities in Caribou's retained field of use owned or developed by the Company between July 16, 2014 and, at least, July 16, 2016.

For the period from May 7, 2014 (inception) through December 31, 2014, the Company recorded $6.1 million as in-process research and development expense within the statement of operations, which represents the fair value of the license received from Caribou. The $6.1 million expense includes $4.1 million associated with the fair value of the Junior Preferred Units issued to Caribou and $2.0 million in committed cash payments under the services agreement, which were determined to be allocable to the value of the licenses received. The remaining $3.0 million in committed cash payments related to the services agreement are being recorded as research and development expense as the services are provided. For the period from May 7, 2014 (inception) through December 31, 2014 and for the year ended December 31, 2015, the Company recorded $0.3 million and $1.5 million, respectively, in research and development expense for services provided under the Caribou services agreement. The Company had prepaid research and development expenses recorded of $0.2 million and $0.4 million related to the services agreement as of December 31, 2014 and 2015, respectively.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company accounted for the license from Caribou as an acquisition of in-process research and development assets and recorded the entire amount as in-process research and development expense as the Company did not acquire any employees, manufacturing or other facilities, developed processes or clinical stage assets as part of its agreement with Caribou.

Property Leases

In October 2014, the Company entered into an agreement to lease office and laboratory space in Cambridge, Massachusetts under an operating lease agreement with a term through January 2020, with an option to extend the term of the lease for an additional five-year period. Upon the execution of this lease, the Company provided a $0.3 million security deposit. The Company has recorded this security deposit in other assets on the consolidated balance sheets. In addition, in 2015, the Company entered into a two-year agreement to lease additional laboratory space and a one-year agreement to lease a corporate apartment.

The Company recognizes rent expense, inclusive of escalation charges, on a straight-line basis over the initial term of the lease agreements. The Company recorded rent expense of $0.1 million during the period from May 7, 2014 (inception) to December 31, 2014 and $1.2 million during the year ended December 31, 2015.

In January 2016, the Company entered into a ten-year agreement to lease office and laboratory space in Cambridge, Massachusetts under an operating lease agreement, with an option to terminate the lease at the end of the sixth year and an option to extend the term of the lease for an additional three years. Upon the execution of this lease, the Company provided a $2.2 million security deposit. The Company's contractual commitments under the committed first six years of this lease total $28.3 million. Payments under the contract are expected to begin in late 2016 when the Company is projected to gain access to the space.

The Company's contractual commitments under the Caribou agreements and property leases as of December 31, 2015 are as follows:

Year Ending December 31,	Fixed Payments to Caribou	Property Leases	Total Commitments
		(in thousands)	
2016	$ 1,500	$ 945	$ 2,445
2017	—	1,025	1,025
2018	—	843	843
2019	—	869	869
2020	—	73	73
Thereafter	—	—	—
	$ 1,500	$ 3,755	$ 5,255

This table does not include (i) the property lease the Company entered into subsequent to December 31, 2015 or (ii) the Company's obligation to pay 30.0% of Caribou's patent prosecution, filing, and maintenance costs for licensed intellectual property as such costs cannot be reliably estimated until incurred.

Contingencies

In connection with the July 2014 intellectual property license with Caribou, the Company gained access to sublicensed intellectual property from various academic and professional institutions. Under these sublicenses, the Company may be obligated to pay development and regulatory milestones of up to $6.4 million, sales-based milestones of up to $20.0 million and up to mid single-digit royalties on net sales of any products covered by issued patents to these entities in certain circumstances.

Under the Caribou license agreement, the Company sublicenses a United States patent application that is currently subject to interference proceedings declared by the Patent Trial and Appeal Board of the United States

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Patent and Trademark Office. If the Company's sublicensed patent family does not prevail in these proceedings, claims could be asserted against the Company during development or commercialization of a product that relies on this technology. Defense of any such claims would involve substantial litigation expense, and any successful claim of infringement against the Company could require the Company to pay substantial damages.

7. Preferred Units and Preferred Stock

The Company had issued Class A-2, Class A-1 and Junior preferred units (collectively, the "Preferred Units"), which converted to Series A-2, Series A-1 and Junior preferred stock upon the Reorganization. In August 2015, the Company issued Series B preferred stock (with the Series A-2, Series A-1 and Junior preferred stock, collectively referred to as the "Preferred Stock"). The Preferred Units were classified within members' equity.

In July 2014, the Company issued 2,857,142 Class A-1 Preferred Units at an issuance price of $1.05 for gross proceeds of $3.0 million, net of issuance costs of $0.2 million.

In July 2014, the Company issued 8,110,599 Junior Preferred Units with an aggregate fair value of $4.1 million in exchange for all of Caribou's membership interest in Intellia, LLC. Intellia, LLC was a holding company that was the original party to the license agreement with Caribou and otherwise had no other assets or operations prior to being merged with and into the Company in July 2014. Refer to Note 6, *Commitments and Contingencies*, for additional information regarding these licenses. The fair value per unit of the Junior Preferred Units as of the date of issuance was determined by the Company relying in part on the results of a third-party valuation prepared using the option-pricing method to determine the Company's enterprise value.

In September 2014, the Company issued an additional 5,714,287 Class A-1 Preferred Units at an issuance price of $1.05 per unit, for gross proceeds of $6.0 million, net of issuance costs of $0.2 million. Of these units, 4.8 million units were issued and sold to Novartis in contemplation of a future collaboration arrangement. These preferred units were subsequently determined to have a fair value of $1.51 per unit as of their date of issuance; therefore, a portion of the upfront consideration received under the collaboration arrangement was allocated to the carrying value of these preferred units when received during the year ended December 31, 2015. The fair value per unit of the Class A-1 Preferred Units as of the date of issuance was determined by the Company relying in part on the results of a third-party valuation prepared using the probability-weighted expected return method ("PWERM"), which used a combination of market approaches and an income approach to determine the Company's enterprise value.

In December 2014, the Company issued 2,666,666 Class A-2 Preferred Units to Novartis at an issuance price of $1.50 per unit for gross proceeds of $4.0 million, net of insignificant issuance costs, in contemplation of the collaboration and license arrangement entered into with Novartis at the same time. These preferred units were subsequently determined to have a fair value of $1.67 per unit as of their date of issuance; therefore, a portion of the upfront consideration received under the collaboration arrangement was allocated to the carrying value of these preferred units when received in 2015. The fair value per unit of the Class A-2 Preferred Units as of the date of issuance was determined by the Company relying in part on the results of a third-party valuation prepared using the PWERM, which used a combination of market approaches and an income approach to determine the Company's enterprise value.

In January 2015, the Company issued 1,333,333 Class A-2 Preferred Units at an issuance price of $1.50 per unit for gross proceeds of $2.0 million, net of insignificant issuance costs.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Preferred Units consisted of the following as of December 31, 2014:

	Preferred Units Issued and Outstanding	Carrying Value	Liquidation Preference
		(in thousands)	
Class A-2 Preferred Units	2,666,666	$ 3,986	$ 4,000
Class A-1 Preferred Units	8,571,429	8,407	9,000
Junior Preferred Units	8,110,599	4,055	8,516
	19,348,694	$16,448	$ 21,516

The Preferred Units had no conversion or redemption rights; therefore, the Company determined that these securities qualified for classification as permanent equity.

Reorganization with Intellia Therapeutics, Inc.

On August 20, 2015, the Company completed a series of transactions pursuant to which Intellia Therapeutics, LLC, the former sole stockholder and holding company parent, merged with and into Intellia Therapeutics, Inc., and Intellia Therapeutics, Inc. continued to exist as the surviving corporation. In connection with the Reorganization:

- holders of Intellia Therapeutics, LLC's outstanding Class A-2 Preferred Units received one share of Intellia Therapeutics, Inc. Series A-2 Preferred Stock for each Class A-2 Preferred Unit held immediately prior to the Reorganization, with an aggregate of 3,999,999 shares of Intellia Therapeutics, Inc. Series A-2 Preferred Stock issued in the Reorganization;
- holders of Intellia Therapeutics, LLC's outstanding Class A-1 Preferred Units received one share of Intellia Therapeutics, Inc. Series A-1 Preferred Stock for each Class A-1 Preferred Unit held immediately prior to the Reorganization, with an aggregate of 8,571,429 shares of Intellia Therapeutics, Inc. Series A-1 Preferred Stock issued in the Reorganization;
- holders of Intellia Therapeutics, LLC's outstanding Junior Preferred Units received one share of Intellia Therapeutics, Inc. Junior Preferred Stock for each Junior Preferred Unit held immediately prior to the Reorganization, with an aggregate of 8,110,599 shares of Intellia Therapeutics, Inc. Junior Preferred Stock issued in the Reorganization;
- holders of Intellia Therapeutics, LLC's outstanding Common Units received one share of Intellia Therapeutics, Inc. Founder Stock for each Common Unit held immediately prior to the Reorganization, with an aggregate of 2,298,000 shares of Intellia Therapeutics, Inc. Founder Stock issued in the Reorganization; and
- holders of Intellia Therapeutics, LLC's outstanding Incentive Units received restricted shares of Intellia Therapeutics, Inc. Common Stock in an amount equal in value to the value of such Incentive Units as determined by the applicable provisions of the Intellia Therapeutics, LLC operating agreement in effect immediately prior to the Reorganization, with an aggregate of 2,558,755 shares of Intellia Therapeutics, Inc. restricted common stock issued in the Reorganization.

In evaluating this transaction, the Company considered that (i) although the number of shares and ownership interests held by each stockholder changed nominally, the fair value of each stockholder's interest remained unchanged as a result of the Reorganization, and (ii) the Reorganization occurred between a parent and wholly-owned subsidiary, where the parent, Intellia Therapeutics, LLC, had no substantive operations. Based on this evaluation, the Company determined that the Reorganization lacked economic substance and should be accounted for in a manner consistent with a common control transaction. Similarly, as there was no change in fair

value between stockholders, individually or as a class, the Company determined that the exchange of shares occurring in the Reorganization should be accounted for as a modification of the equity securities and presented as a reclassification of the components of equity.

The Company's Series A-2 Preferred Stock, Series A-1 Preferred Stock, Junior Preferred Stock and Founder Stock are designated as Preferred Stock under its amended and restated certificate of incorporation. All outstanding shares of its Preferred Stock convert to shares of common stock on a one-for-0.6465903 basis.

The Preferred Stock issued in the Reorganization has the following rights and preferences:

Conversion—Prior to any automatic conversion of the Preferred Stock in connection with the closing of an initial public offering, each share of Preferred Stock is convertible at the option of the holder into the number of shares of common stock determined by dividing the respective "Original Issue Price" for such series of Preferred Stock by the applicable conversion price then in effect for such series of Preferred Stock. The conversion prices for each series of Preferred Stock are subject to adjustment in the event of certain dilutive issuances of common stock.

All shares of Preferred Stock are automatically convertible into common stock upon the earlier of (i) the closing of an underwritten public offering in which the public offering price is at least $13.3875 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the common stock) and the net proceeds raised equal or exceed $60.0 million, (ii) in connection with any other underwritten public offering with the election of the holders of at least 67% of the outstanding shares of Preferred Stock, voting together as a single class on an as-converted to common stock basis, and (iii) the election of the holders of at least 67% of the outstanding shares of Preferred Stock, voting together as a single class on an as-converted to common stock basis, and the holders of at least a majority of the outstanding shares of Series B Preferred Stock, voting together as a single class on an as-converted to common stock basis.

Voting Rights—The holders of Preferred Stock are entitled to vote as a single class with the holders of common stock on all matters and are entitled to the number of votes equal to the number of whole shares of common stock into which the shares of the particular series of Preferred Stock are convertible. The holders of Series B Preferred Stock, voting together as a single class on an as-converted to common stock are entitled to elect one director to the Company's board of directors, the holders of Series A-1 Preferred Stock and Series A-2 Preferred Stock, voting together as a single class on an as-converted to common stock basis, are entitled to elect one director to the Company's board of directors, the holders of Junior Preferred Stock, voting together as a single class on an as-converted to common stock basis, are entitled to elect one director to the Company's board of directors and the holders of Preferred Stock and the holders of common stock, voting together as a single class on an as-converted to common stock basis, are entitled to elect the remaining directors.

Dividends —The holders of Preferred Stock are entitled to receive non-cumulative dividends in preference to any dividends on common stock, in each case, only when and if declared by the Company's board of directors.

Liquidation Preference—In the event of any liquidation, dissolution or winding-up of the Company, including certain mergers or a disposition of all or substantially all of the assets of the Company (a "Deemed Liquidation Event") the Preferred Stock ranks senior to the Company's common stock and the holders of Preferred Stock shall be entitled to receive their original purchase price together with all accumulated but unpaid dividends prior to any distributions being made to common stock. Additionally, each class of Preferred Stock is successively more senior than the previous issued class of Preferred Stock, except for the Series A-1 Preferred Stock, which ranks *pari passu* with the Series A-2 Preferred Stock, and each holder of the more senior Preferred Stock shall be entitled to receive their original purchase price together with all accumulated but unpaid dividends prior to any distributions made to the less senior Preferred Stock. The order of seniority is Series B, Series A-2 and Series A-1, Junior Preferred and Founder Stock. Upon completion of the payment of the original purchase price and declared but unpaid dividends to the holders of Preferred Stocks, all of the remaining assets shall be distributed among the holders of Preferred Stock and common stock pro rata based on the number of shares of common stock held by each, assuming full conversion of all outstanding shares of Preferred Stock.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Preferred Stock has no redemption rights; however, because the holders of the Preferred Stock have the option to require redemption upon a Deemed Liquidation Event, which may be beyond the Company's control, the Preferred Stock has been classified as temporary equity. A Deemed Liquidation Event has not been deemed probable as of December 31, 2015.

Issuance of Series B Preferred Stock

In August 2015, the Company issued 13,336,601 shares of Series B Preferred Stock at an issuance price of $5.25 per share for gross proceeds of $70.0 million.

The rights and preferences of the Series B Preferred Stock are similar to those of the other series of Preferred Stock, except that, specifically, (1) the majority of the outstanding shares of Series B Preferred Stock, voting together as a single class on an as-converted to common stock basis, has the ability to control the election of the holders of Preferred Stock to convert to common, (2) the Series B preferred stockholders, voting together as a single class on an as-converted to common stock basis, are entitled to elect one director to the Company's board of directors, and (3) the Series B preferred stockholders are entitled to first preference in the event of a liquidation.

Preferred Stock consisted of the following as of December 31, 2015:

	Preferred Shares Issued and Outstanding	Carrying Value	Liquidation Preference
		(in thousands)	
Series B Preferred Stock	13,336,601	$67,263	$ 70,017
Series A-2 Preferred Stock	3,999,999	6,249	6,000
Series A-1 Preferred Stock	8,571,429	9,750	9,000
Junior Preferred Stock	8,110,599	4,055	8,516
Founder Stock	2,298,000	1,240	2,413
	36,316,628	$88,557	$ 95,946

8. Collaboration

In December 2014, the Company entered into a strategic collaboration agreement with Novartis focused on the *ex vivo* development of new CRISPR/Cas9-based therapies using chimeric antigen receptor T cells ("CAR T cells") and hematopoietic stem cells ("HSCs").

Under the terms of the collaboration, the Company and Novartis may research potential therapeutic, prophylactic and palliative applications of the CRISPR/Cas9 platform in HSCs and CAR T cells. Within the HSC therapeutic space, Novartis may obtain exclusive rights to a limited number of HSC targets, to be selected by Novartis in a series of selection windows, the last of which closes 90 days before the fifth anniversary of the effective date of the collaboration agreement. If Novartis does not exercise its selection rights within each selection window, any such rights will be deemed forfeited by Novartis. Novartis is required to use commercially reasonable efforts to research, develop or commercialize at least one HSC product directed to at least one of their selected HSC targets.

The Company also agreed to collaborate with Novartis on research activities for CAR T cell targets under a research plan agreed upon by both parties. After completion of the research and development activities contemplated by the CAR T cell program research plan, Novartis will assume sole responsibility for developing any products arising from that research plan and will be responsible for additional costs and expenses of developing, manufacturing and commercializing selected research targets. Novartis is required to use commercially reasonable efforts to research, develop or commercialize at least one CAR T cell product directed to at least one of their selected CAR T cell targets.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In the last two years of the collaboration term, Novartis will have the option to select a limited number of targets for research, development and commercialization of *in vivo* therapies. Novartis is required to use commercially reasonable efforts to research, develop or commercialize at least one *in vivo* product directed to each of their selected targets. Novartis' *in vivo* target selections are subject to certain restrictions, including that the targets may not have been already reserved by the Company or be subject to another agreement.

The Company received an upfront technology access payment from Novartis of $10.0 million in January 2015 and is entitled to additional technology access fees of $20.0 million and quarterly research payments of $1.0 million, or up to $20.0 million in the aggregate, during the five-year research term. For each product under the collaboration, the Company may be eligible to receive (i) up to $30.3 million in development milestones, including for the filing of an investigational new drug application and for the dosing of the first patient in each of Phase IIa, Phase IIb and Phase III clinical trials, (ii) up to $50.0 million in regulatory milestones for the product's first indication, including regulatory approvals in the United States ("U.S.") and European Union ("EU"), (iii) up to $50.0 million in regulatory milestones for the product's second indication, if any, including U.S. and EU regulatory approvals, (iv) royalties on net sales in the mid-single digits, and (v) net sales milestone payments of up to $100.0 million. The Company may also be eligible to receive payments for: (i) each additional HSC target selected by Novartis beyond its initial defined allocation, (ii) each *in vivo* target that Novartis selects and (iii) any exercise by Novartis of certain license options under the agreement. Additionally, at the inception of the arrangement, Novartis invested $9.0 million to purchase the Company's Class A-1 and Class A-2 Preferred Units. At date of issuance of the Class A-1 and A-2 Preferred Units in September and December 2014, the difference between the cash proceeds received from Novartis for the units and the $11.6 million estimated fair value of those units at date of issuance was determined to be $2.6 million.

The fixed portion of consideration under the collaboration arrangement was determined to be the $30.0 million of total technology access fees, for which there are no contingent terms. From that amount, the Company allocated $2.6 million to the preferred units purchased by Novartis to record those units based on their fair value at date of issuance. As a result, during the year ended December 31, 2015, the Company recorded an increase of $2.6 million to the carrying value its Class A-1 and A-2 Preferred Units and a corresponding decrease to the deferred revenue initially recorded in connection with the collaboration agreement with Novartis.

The significant deliverables of this multiple-element revenue arrangement were determined to be licenses CAR T cell and HSC targets and the associated research activities for these programs. The Company further determined that the licenses and associated research activities and joint steering committee participation did not have standalone value due to the specialized nature of the services to be provided by the Company. Therefore, the deliverables are not separable, and, accordingly, the license and services are treated as a single unit of accounting.

Net of the $2.6 million allocation, the fixed portion of consideration under the arrangement of $27.4 million is being recognized as collaboration revenue over the five-year performance period of the arrangement. As consideration for reimbursement of research and development activities is received, the Company is recognizing as collaboration revenue the portion of those payments representing the percentage of the performance period then completed. The remaining consideration is being recognized over the remaining portion of the five-year performance period on a straight-line basis. During the year ended December 31, 2015, the Company recorded revenue of $6.0 million related to the collaboration agreement with Novartis. As of December 31, 2015, deferred revenue under the Novartis arrangement was $10.3 million. There was no deferred revenue related to this arrangement as of December 31, 2014.

Agreement Termination Rights

The collaboration term ends in December 2019. The agreement ends (i) upon the expiration of Novartis' payment obligations; or (ii) on the date of expiration of the last-to-expire patent right that is licensed to the Company or Novartis. Novartis may terminate the agreement, without cause, upon 90 days' written notice to the

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Company subject to certain conditions, including its payment of any accrued and future obligations as if the collaboration had continued through December 2019. Either party may terminate the agreement in the event of the other party's uncured material breach or insolvency.

9. Equity-Based Compensation

From inception through July 2015, the Company issued equity-based compensation awards in the form of common units or incentive units. In connection with the Reorganization, holders of the outstanding common units received one share of Intellia Therapeutics, Inc. Founder Stock, and holders of the outstanding incentive units received restricted shares of common stock of Intellia Therapeutics, Inc. There was no incremental compensation recognized from the conversion that occurred as a result of the Reorganization.

Each share of Founder Stock and each share of restricted common stock entitles the holder to one vote for each share of common stock into which each share is convertible on all matters submitted to a vote of the Company's stockholders. Founder stock and restricted stock holders are entitled to dividends when and if declared by the Board of Directors, subject to the preferential rights of other preferred stockholders.

These awards primarily vest as to 25% of the total units on the first anniversary of the vesting commencement date and then monthly, at the end of each subsequent month, over three years. The Company generally grants equity-based awards with service conditions only. As of December 31, 2015, the Company had reserved 1,128,717 shares for future grant. In February 2016, the Company increased the number of shares reserved for future grant by 1,529,411 shares.

Equity-Based Compensation

The Company recorded equity-based compensation expense in its consolidated statements of operations as follows:

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
	(in thousands)	
Research and development	$ 83	$ 1,061
General and administrative	225	247
	$ 308	$ 1,308

Founder Stock and Restricted Stock

Compensatory common and incentive units, and the corresponding Founder Stock and restricted stock issued in replacement of common and incentive units in the Reorganization, are valued at the fair value of the underlying security. The Company valued these awards by taking into consideration its most recently available valuation performed by management and the board of directors, considering the most recently available third-party valuations of the Company's securities as well as additional qualitative factors.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes the Company's compensatory Founder Stock (common unit) activity since inception:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Unvested common units as of January 1, 2015	1,013,821	$ 0.37
Vested	(577,312)	$ (0.37)
Unvested Founder Stock as of December 31, 2015	436,509	$ 0.37

The following table summarizes the Company's compensatory restricted stock (incentive unit) activity since inception:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Unvested incentive units as of January 1, 2015	1,558,498	$ 0.35
Issued	877,456	$ 1.34
Effect of Reorganization	154,606	$ —
Vested	(613,719)	$ (0.36)
Forfeited	(31,805)	$ (1.34)
Unvested restricted stock as of December 31, 2015	1,945,036	$ 0.78

The aggregate intrinsic value of Founder Stock awards that vested during each of the periods from May 7, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015 was $0.1 million and $2.2 million, respectively. The aggregate intrinsic value of restricted stock awards that vested during the year ended December 31, 2015 was $3.3 million.

As of December 31, 2015, there was $3.5 million of unrecognized equity-based compensation related to Founder Stock and restricted stock that is expected to vest. These costs are expected to be recognized over a weighted average remaining vesting period of 3.0 years.

Stock Options

The Company uses the Black-Scholes option-pricing model to measure the fair value of stock option awards. Key assumptions used in this pricing model on the date of grant for options granted to employees are as follows:

	Year Ended December 31, 2015
Risk-free interest rate	1.5%
Expected life of options	6.0 years
Expected volatility of underlying stock	82.6%
Expected dividend yield	0.0%

There were no stock option awards granted in 2014.

The risk-free interest rate is based upon the U.S. Treasury yield curve in effect at the time of grant, with a term that approximates the expected life of the option. The Company calculates the expected life of options granted to employees using the simplified method as the Company has insufficient historical information to provide a basis for estimate. The Company determines the expected volatility based on the historical volatility of

a peer group of comparable publicly traded companies with product candidates in similar stages of development to the Company's product candidates. The Company has applied an expected dividend yield of 0.0% as the Company has not historically declared a dividend and does not anticipate declaring a dividend during the expected life of the options.

The following table summarizes the Company's stock option activity from inception through December 31, 2015:

	Number of Options	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2014	—	$ —		
Granted	456,374	6.04		
Outstanding at December 31, 2015	456,374	$ 6.04	9.8	$ 166
Exercisable at December 31, 2015	—	$ —	—	$ —

The weighted average grant date fair value of these awards was $4.24 per share.

As of December 31, 2015, there was $1.8 million of unrecognized stock-based compensation related to stock options that are expected to vest. The Company expects to recognize this expense over a weighted-average period of 3.7 years.

In February 2016, the Company granted 2,161,558 stock options at an exercise price per share of $6.83.

10. Loss per Unit

Basic and diluted loss per common unit and per incentive unit were calculated as follows:

	Period from May 7, 2014 (inception) to December 31, 2014 (in thousands, except per unit data)
Net loss	$ (9,539)
Weighted average common units outstanding, basic and diluted	826
Net loss per common unit, basic and diluted	$ (11.55)

The Company's Preferred Stock has the right to participate in earnings and distributions of the Company but are not obligated to share in losses. As a result, in periods of net loss, the Company allocated losses on a pro rata basis to the holders of its Common Units and Incentive Units.

Following the Reorganization, the Company calculates loss per share attributable to common stockholders based on its outstanding common stock.

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Basic and diluted loss per share attributable to common stockholders is calculated as follows:

	Year Ended December 31, 2015 (in thousands, except per share data)
Net loss	$ (12,397)
Weighted average shares outstanding, basic and diluted	243
Loss per share attributable to common stockholders, basic and diluted	$ (51.02)

The following common stock equivalents have been excluded from the calculations of diluted loss per unit or share because their inclusion would have been antidilutive.

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
	(in thousands)	
Preferred units	11,382	—
Convertible preferred stock	—	21,363
Unvested common units	596	—
Unvested incentive units	1,558	—
Unvested restricted stock	—	1,945
Stock options	—	456
	13,536	23,764

Unaudited Pro Forma Loss per Share

Pro forma net loss per share is calculated as follows:

	Period from May 7, 2014 (inception) to December 31, 2014	Year Ended December 31, 2015
	(in thousands, except per unit and per share data) (unaudited)	
Net loss	$ (9,539)	$ (12,397)
Weighted average common units outstanding, basic and diluted	826	—
Weighted average shares outstanding, basic and diluted	—	243
Pro forma adjustment for conversion of all units in the Reorganization and the subsequent assumed automatic conversion of all preferred stock into shares of common stock upon the closing of the proposed initial public offering	5,991	17,421
Pro forma weighted average shares outstanding, basic and diluted	6,817	17,664
Pro forma net loss per share, basic and diluted	$ (1.40)	$ (0.70)

INTELLIA THERAPEUTICS, INC. (SUCCESSOR TO INTELLIA THERAPEUTICS, LLC)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

11. Related Party Transactions

In July 2014, the Company issued Caribou 8,110,599 Junior Preferred Units. As a result of this and related transactions, Caribou owned 33.7% and 20.2% of the Company's fully diluted equity as of December 31, 2014 and December 31, 2015, respectively. Refer to Note 6, *Commitments and Contingencies*, for additional information regarding these agreements.

During the period from May 7, 2014 (inception) to December 31, 2014, the Company recognized $6.1 million in in-process research and development expense and $0.2 million in research and development expense and, as of December 31, 2014, had recorded current and non-current obligations of $1.7 million related to the license and service agreements with Caribou. During the year ended December 31, 2015, the Company recognized $1.5 million in research and development expense and, as of December 31, 2015, had recorded current obligations of $0.6 million related to the license and service agreements with Caribou. In addition, the Company recognized $0.2 million and $1.1 million in general and administrative expense during the period from May 7, 2014 (inception) to December 31, 2014 and the year ended December 31, 2015, respectively, related to the Company's obligation to pay 30.0% of Caribou's patent prosecution, filing, and maintenance costs under the intellectual property license agreement with Caribou.

In connection with its entry into a collaboration and license agreement and related equity transactions with Novartis, the Company issued Novartis 4,761,905 Class A-1 Preferred Units and 2,666,666 Class A-2 Preferred Units. As a result of these transactions, Novartis owned 28.9% of the Company's fully diluted equity as of December 31, 2014. In August 2015, Novartis acquired 761,905 shares of the Company's Series B Preferred Stock. As a result of this transaction, Novartis collectively owned 19.2% of the Company's fully diluted equity as of December 31, 2015. Refer to Note 8, *Collaboration*, for additional information regarding this collaboration agreement.

During the year ended December 31, 2015, the Company recognized $6.0 million in collaboration revenue related to this collaboration. As of December 31, 2015, the Company had recorded accounts receivable of $1.0 million and deferred revenue of $10.3 million related to this collaboration.

From May 7, 2014 (inception) to September 2014, the Company received consulting and management services from Atlas Venture Advisors, Inc., which through its affiliate, Atlas, owned 18.5% of the Company's fully diluted equity as of December 31, 2014. The Company paid Atlas Venture Advisors, Inc. $0.3 million for these services, including reimbursement of expenses, in the period from May 7, 2014 (inception) to December 31, 2014. No such services were provided in 2015.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PART II

Information Not Required in Prospectus

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the fees and expenses, other than underwriting discounts and commissions, payable in connection with the registration of the common stock hereunder. All amounts are estimates except the SEC registration fee.

	Amount to be Paid
SEC registration fee	$ 12,084
FINRA filing fee	18,500
NASDAQ Global Market listing fee	150,000
Printing and mailing	220,000
Legal fees and expenses	1,400,000
Accounting fees and expenses	750,000
Transfer agent and registrar fees and expenses	3,500
Miscellaneous	45,916
Total	$ 2,600,000

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the "DGCL") authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We have adopted provisions in our certificate of incorporation to be in effect upon the closing of this offering and bylaws to be in effect upon the effectiveness of this registration statement that limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our bylaws provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
- we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into indemnification agreements with each of our directors and intend to enter into such agreements with certain of our executive officers. These agreements provide that we will indemnify each of our directors, certain of our executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of us or in furtherance of our rights. Additionally, certain of our directors or officers may have certain rights to indemnification, advancement of expenses or insurance provided by their affiliates or other third parties, which indemnification relates to and might apply to the same proceedings arising out of such director's or officer's services as a director referenced herein. Nonetheless, we have agreed in the indemnification agreements that our obligations to those same directors or officers are primary and any obligation of such affiliates or other third parties to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act of 1933, as amended (the "Securities Act").

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification of us and our directors and officers by the underwriters against certain liabilities under the Securities Act and the Securities Exchange Act of 1934.

Item 15. Recent Sales of Unregistered Securities.

The following list sets forth information regarding all unregistered securities sold by us in the past three years. No underwriters were involved in the sales and the certificates representing the securities sold and issued contain legends restricting transfer of the securities without registration under the Securities Act or an applicable exemption from registration.

(a) Reorganization

On August 20, 2015, Intellia Therapeutics, LLC, a Delaware limited liability company, merged with and into Intellia Therapeutics, Inc., a Delaware corporation. We refer to the series of transactions related to Intellia Therapeutics, LLC's merger with and into us as the Reorganization. As a result of the Reorganization, incentive units of Intellia Therapeutics, LLC were converted into shares of our common stock; Common Units of Intellia Therapeutics, LLC were converted into shares of our Founder Stock; Junior Preferred Units of Intellia Therapeutics, LLC were converted into shares of our Junior Preferred Stock; Class A-1 Preferred Units of Intellia Therapeutics, LLC were converted into shares of our Series A-1 Preferred Stock; and Class A-2 Preferred Units of Intellia Therapeutics, LLC were converted into shares of our Series A-2 Preferred Stock. The Reorganization was effected pursuant to an Agreement and Plan of Merger between Intellia Therapeutics, LLC and Intellia Therapeutics, Inc. and did not constitute a sale for purposes of the Securities Act.

(b) Sales of Securities

The following list sets forth information regarding all unregistered securities sold by us since our inception on May 7, 2014.

1. On June 19, 2014, we issued and sold 1,000 shares of our common stock, or the Atlas Common Shares, to Atlas Venture Fund IX, L.P., or Atlas Venture Fund IX, for aggregate consideration of $0.1 million.

2. On July 16, 2014, Intellia Therapeutics, LLC issued and sold preferred securities since converted into an aggregate of 2,857,142 shares of our Series A-1 Preferred Stock to Atlas Venture Fund IX in exchange for $2.9 million in cash and the Atlas Common Shares.

3. On July 16, 2014, Intellia Therapeutics, LLC issued preferred securities since converted into 8,110,599 shares of our Junior Preferred Stock to Caribou Therapeutics Holdco, LLC, a holding company owned and managed by Caribou Biosciences, Inc., or Caribou. In exchange for such shares, Caribou Therapeutics Holdco, LLC contributed to Intellia Therapeutics, LLC all of its membership interests of Intellia, LLC, a holding company that was the original party to a license agreement with Caribou, dated July 16, 2014.

4. On July 31, 2014, Intellia Therapeutics, LLC issued to Atlas Venture Fund IX preferred securities since converted into an aggregate of 946,237 shares of founder stock as of August 31, 2015.

5. Between September 17, 2014 and January 28, 2015, in connection with a preferred securities financing, Intellia Therapeutics, LLC issued to Atlas Venture Fund IX and Novartis Institutes for BioMedical Research, Inc., or Novartis, in a series of closings, preferred securities since converted into an aggregate of 5,714,287 shares of our Series A-1 Preferred Stock and 3,999,999 shares of our Series A-2 Preferred Stock for aggregate consideration of $6.0 million and $6.0 million, respectively.

6. On August 20, 2015, we issued and sold an aggregate of 13,336,601 shares of our Series B Preferred Stock to 28 accredited investors at a per share purchase price of $5.25 for aggregate gross consideration of $70.0 million.

7. Between July 31, 2014 and July 31, 2015, Intellia Therapeutics, LLC issued to certain of our employees, consultants and scientific advisory board members equity representing an aggregate of 2,558,755 shares of restricted common stock and 1,351,763 shares of our founder stock, in each case as of August 31, 2015, in exchange for their services to us.

8. Between September 22, 2015 and April 25, 2016, we issued to certain of our employees and a director options to purchase an aggregate of 2,617,932 shares of our common stock, in exchange for their services to us.

We deemed the offers, sales and issuances of the securities described in paragraphs (1) through (6) above to be exempt from registration under the Securities Act, in reliance on Section 4(a)(2) of the Securities Act, including Regulation D and Rule 506 promulgated thereunder, regarding transactions by an issuer not involving a public offering. All purchasers of securities in transactions exempt from registration pursuant to Regulation D represented to us that they were accredited investors and were acquiring the shares for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. The purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

We deemed the issuances of our common stock and our founder stock described in paragraph (7) and options to purchase shares of our common stock in paragraph (8) to be exempt from registration under the Securities Act either in reliance on Rule 701 of the Securities Act as offers and sales of securities under compensatory benefit plans and contracts relating to compensation in compliance with Rule 701, or in reliance on Section 4(a)(2), as transactions by an issuer not involving a public offering. Each of the recipients of

securities in any transaction exempt from registration either received or had adequate access, through employment, business or other relationships, to information about us.

All certificates representing the securities issued in the transactions described in this Item 15 included appropriate legends setting forth that the securities had not been offered or sold pursuant to a registration statement and describing the applicable restrictions on transfer of the securities. There were no underwriters employed in connection with any of the transactions set forth in this Item 15.

Item 16. Exhibits and Financial Statement Schedules.

The exhibits to the registration statement are listed in the Exhibit Index to this registration statement and are incorporated herein by reference.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Act, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The Registrant hereby undertakes that:

(a) The Registrant will provide to the underwriter at the closing as specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

(b) For purposes of determining any liability under the Securities Act of 1933, as amended, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933, as amended, shall be deemed to be part of this registration statement as of the time it was declared effective.

(c) For the purpose of determining any liability under the Securities Act of 1933, as amended, 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.

(d) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(e) For the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities that in a primary offering of securities of the undersigned

registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

i. Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

ii. Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

iii. The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

iv. Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on the 5th day of May, 2016.

INTELLIA THERAPEUTICS, INC.

By: /s/ Nessan Bermingham
Nessan Bermingham, Ph.D.
Founder, President and Chief Executive Officer

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following person in the capacities and on the date indicated.

Name	Title	Date
/s/ Nessan Bermingham Nessan Bermingham, Ph.D.	Founder, President, Chief Executive Officer and Director *(Principal Executive Officer)*	May 5, 2016
* Sapna Srivastava, Ph.D.	Chief Financial and Strategy Officer *(Principal Financial Officer)*	May 5, 2016
* Nicole Heifner	Chief Accounting Officer *(Principal Accounting Officer)*	May 5, 2016
* Caroline Dorsa	Director	May 5, 2016
* Jean-François Formela, M.D.	Director	May 5, 2016
* Carl L. Gordon, Ph.D.	Director	May 5, 2016
* Rachel Haurwitz, Ph.D.	Director	May 5, 2016
* Perry Karsen	Director	May 5, 2016
* John M. Leonard, M.D.	Chief Medical Officer and Director	May 5, 2016

* Pursuant to Power of Attorney

By: /s/ Nessan Bermingham
Nessan Bermingham, Ph.D.

EXHIBIT INDEX

Exhibit No.	Description
1.1**	Form of Underwriting Agreement
3.1**	Amended and Restated Certificate of Incorporation of the Registrant, as amended to date and as currently in effect
3.2**	Form of Second Amended and Restated Certificate of Incorporation of the Registrant (to be effective upon completion of this offering)
3.3**	Amended and Restated By-laws of the Registrant, as currently in effect
3.4**	Form of Second Amended and Restated By-laws (to be effective upon the effectiveness of this registration statement)
4.1**	Investors' Rights Agreement among the Registrant and certain of its stockholders, dated August 20, 2015
4.2**	Amendment No. 1 to Investors' Rights Agreement among the Registrant and certain of its stockholders, dated April 11, 2016
4.3**	Amendment No. 2 to Investors' Rights Agreement among the Registrant and certain of its stockholders, dated April 25, 2016
5.1**	Opinion of Goodwin Procter LLP
10.1#**	2015 Amended and Restated Stock Option and Incentive Plan and forms of award agreements thereunder
10.2#**	Senior Executive Cash Incentive Bonus Plan
10.3†**	License Agreement dated as of July 16, 2014 by and between the Registrant (as successor in interest of Intellia Therapeutics, LLC) and Caribou Biosciences, Inc.
10.4†**	Services Agreement dated as of July 16, 2014 by and between the Registrant (as successor in interest of Intellia Therapeutics, LLC) and Caribou Biosciences, Inc.
10.5†	License and Collaborative Research Agreement dated as of December 18, 2014 by and between the Registrant and Novartis Institutes for BioMedical Research, Inc.
10.6#**	Form of Indemnification Agreement
10.7**	Lease Agreement, by and between the Registrant and MIT 130 Brookline LLC, dated as of October 21, 2014
10.8**	Lease Agreement, by and between the Registrant and BMR-Sidney Research Campus LLC, dated as of January 6, 2016
10.9#**	2016 Employee Stock Purchase Plan
10.10†**	Amendment No. 1 to License Agreement dated as of February 2, 2016 by and between the Registrant and Caribou Biosciences, Inc.
10.11†**	Addendum to License Agreement dated as of February 2, 2016 by and between the Registrant and Caribou Biosciences, Inc.
10.12†	License and Collaboration Agreement dated as of April 11, 2016 by and between the Registrant and Regeneron Pharmaceuticals, Inc.
10.13**	Common Stock Purchase Agreement dated as of April 26, 2016 between the Registrant and Regeneron Pharmaceuticals, Inc.

Exhibit No.	Description
10.14**	Common Stock Purchase Agreement dated April 26, 2016 between the Registrant and Novartis Institutes for BioMedical Research, Inc.
10.15#**	Form of Employment Agreement for Executive Officers
16.1**	Letter from PricewaterhouseCoopers LLP dated December 22, 2015
21.1**	Subsidiaries of the Registrant
23.1	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm
23.2**	Consent of Goodwin Procter LLP (included in Exhibit 5.1)
24.1**	Power of Attorney
24.2**	Power of Attorney for Perry Karsen

* To be included by amendment

** Previously submitted.

† Application has been made to the Securities and Exchange Commission for confidential treatment of certain provisions. Omitted material for which confidential treatment has been requested has been filed separately with the Securities and Exchange Commission.

# Indicates a management contract or any compensatory plan, contract or arrangement

Exhibit 10.5

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

EXECUTION VERSION

License and Collaborative Research Agreement

License and Collaborative Research Agreement ("Agreement"), effective December 18, 2014 ("Effective Date"), by and between Novartis Institutes for BioMedical Research, Inc., a Delaware corporation with its principal place of business at 250 Massachusetts Avenue, Cambridge, MA 02139 USA ("Novartis"), and Intellia Therapeutics, Inc., a Delaware corporation with its principal place of business at 130 Brookline Street, Suite 201, Cambridge, MA 02139 USA ("Intellia"). Novartis and Intellia are each separately referred to as a "Party" and are collectively referred to as the "Parties".

Whereas, Intellia is a biopharmaceutical company that has licensed and is developing a CRISPR System that permits genomic editing for the research, Development and Commercialization of therapeutic, prophylactic, and palliative applications;

Whereas, Novartis possesses expertise in discovering, developing, manufacturing, marketing, and selling pharmaceutical products worldwide; and

Whereas, the Parties wish to further develop Intellia's platform and discover therapeutic, prophylactic, and palliative products and services generated through the use of that technology.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

In consideration of the respective representations, warranties, covenants, and agreements contained herein, and for other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

ARTICLE I
CERTAIN DEFINITIONS; RULES OF INTERPRETATION

Section 1.1 Certain Definitions.

For the purpose of this Agreement, the following terms, whether used in singular or plural form, will have the meanings set forth below:

"Accounting Standards" means, with respect to Novartis, the International Financial Reporting Standards ("IFRS") and, with respect to Intellia, US Generally Accepted Accounting Principles ("US GAAP"), in each case, as generally and consistently applied throughout the Party's organization.

"Additional Selected HSC Product" means an HSC Product directed to an Additional Selected HSC Target that is researched, Developed, or Commercialized by Novartis, its Affiliates, or their sublicensees.

"Additional Selected HSC Target" has the meaning set forth in Section 2.2.4(a).

"Advanced CART Product" means a CART Product directed to a CART Therapeutic Target and a certain Advanced CART Target that Novartis, its Affiliates, or their sublicensees is researching, Developing, or Commercializing.

"Advanced CART Target" means [***] that a specified CART Product is directed toward. [***]

"Affiliate" means, with respect to a specified Person, a Person that directly or indirectly controls, is controlled by, or is under common control with such Person. For the purpose of this definition, "control" or "controlled" means direct or indirect ownership of 50% or more of the shares of stock entitled to vote for the election of directors in the case of a corporation, ownership of 50% or more of the equity interest in the case of any other type of legal entity, status as a general partner in any partnership, or any other arrangement whereby the Person controls or has the right to control the board of directors or equivalent governing body of a corporation or other entity or the ability to otherwise cause the direction of the management or policies of the corporation or other

entity. The Parties acknowledge that, in the case of entities organized under the Applicable Laws of certain countries where the maximum percentage ownership permitted by Applicable Law for a foreign investor is less than 50%, such lower percentage will be substituted in the preceding sentence; *provided*, that such foreign investor has the power to direct the management and policies of such entity. "Affiliate" shall not include any investment fund or any other Person or entity controlled by such investment fund [***].

"Agreement" has the meaning set forth in the preamble, and will include, for the avoidance of doubt, all Exhibits attached hereto.

"Agreement Term" has the meaning set forth in Section 11.1.

"Alliance Manager" has the meaning set forth in Section 3.4.

"Annual Net Sales" means, with respect to a Product, the Net Sales of such Product during a Calendar Year.

"Applicable Law" means any applicable national, supranational, federal, state, local or foreign law, statute, ordinance, principle of common law, or any rule, regulation, standard, judgment, order, writ, injunction, decree, arbitration award, agency requirement, license, or permit of any Governmental Authority, including any rules, regulations, guidelines, or other requirements of Regulatory Authorities.

"Approval Milestone" has the meaning set forth in Section 7.3.3.

"Approved Internalized Target" has the meaning set forth in Section 6.4.

"Auditor" has the meaning set forth in Section 7.8.2.

"Business Day" means a day other than a Saturday, Sunday, or public holiday during which banks are authorized to be closed in Cambridge, Massachusetts.

"Calendar Quarter" means each calendar quarter ending on March 31, June 30, September 30, or December 31.

"Calendar Year" means each calendar year ending on December 31.

"Caribou" means Caribou Biosciences, Inc., a Delaware corporation.

"Caribou-Berkeley-Vienna Agreement" means the Exclusive License by and among Caribou, the Regents of the University of California, and the University of Vienna, dated April 16, 2013 and amended April 17, 2013, as amended from time to time.

"Caribou-Intellia License Agreement" means the License Agreement by and between Caribou and Intellia, dated July 16, 2014, as amended from time to time.

"Caribou-Wageningen Agreement" means the Exclusive Assignment Agreement, by and between Caribou and Wageningen Universiteit, dated February 13, 2014, as amended from time to time.

"Chimeric Antigen Receptor" or "CAR" means [***].

"CART" means an engineered CAR-modified T-cell.

"CART Budget" has the meaning set forth in Section 2.3.

"CART CRISPR Target" means the [***].

"CART Field" means the *ex vivo* use of CARTs [***], as a therapeutic, prophylactic, or palliative of any human disease. By *ex vivo*, it is meant that the modification of cells occurs *ex vivo*, and the CART is then administered to patients. [***].

[***]

"CART Product" means a product or service that Novartis, its Affiliates, or their sublicensees is researching, Developing, or Commercializing for use in the CART Field the research, development, manufacture, use, sale or import of which Practices Intellia Intellectual Property or Collaboration Intellectual Property.

"CART Program" has the meaning set forth in Section 2.1.1.

"CART Program Target" means the [***]

"CART Research Plan" has the meaning set forth in Section 2.3.

"CART Steering Committee" has the meaning set forth in Section 3.1.2.

"CART Target Product" means and includes any and all Advanced CART Products directed to [***].

"CART Therapeutic Target" means the [***].

[***].

"Co-Chair" has the meaning set forth in Section 3.2.3.

"Co-Detailing Agreement" has the meaning set forth in Section 3.8.2(c).

"Collaboration" has the meaning set forth in Section 2.1.1.

"Collaboration Intellectual Property" means all Intellectual Property Rights created, conceived of, or reduced to practice by either of or jointly by the Parties, their Affiliates, or its or their employees, agents or subcontractors during the Research Term in the conduct of the Collaboration. Collaboration Intellectual Property will consist of Collaboration Platform Intellectual Property and Collaboration Product Intellectual Property. [***]

"Collaboration Platform Intellectual Property" means all Collaboration Intellectual Property relating to **(a)** [***]; or **(b)** any and all improvements or modifications to [***].

"Collaboration Product" means an HSC Product, CART Product, and/or In Vivo Product.

"Collaboration Product Intellectual Property" means all Collaboration Intellectual Property other than Collaboration Platform Intellectual Property.

"Commercialization" or "Commercialize" means any and all activities directed to manufacturing, marketing, promoting, detailing, distributing, importing, exporting, selling, or offering to sell a pharmaceutical product or service.

"Commercially Reasonable Efforts" means those efforts and resources consistent with the usual practices of the relevant Party in pursuing the research, Development, or Commercialization of a similarly situated pharmaceutical product or service at a similar stage of Development or Commercialization [***].

"Committee" has the meaning set forth in Section 3.2.1.

[***]

"Confidential Information" means all Know How or other information, including proprietary information and materials (whether or not patentable) regarding a Party's technology, products, services, business information, or objectives, that is treated as confidential by the disclosing Party in the regular course of business or is otherwise designated as confidential by the disclosing Party, whether existing before or after the Effective Date. For the avoidance of doubt, **(a)** [***] provided by Novartis will be deemed to be Novartis' Confidential Information; **(b)** [***] provided by Intellia, will be deemed to be Intellia's Confidential Information; and **(c)** the terms of this Agreement will be deemed to be the Confidential Information of both Parties.

"Confidentiality Agreement" means [***].

"Contract Year" means each successive twelve month period following the Effective Date.

"Control" or "Controlled" means, with respect to any Intellectual Property Right the possession by a Party (whether by ownership, license or otherwise) of the ability to grant access to, or a license or sublicense of, such rights or property, without **(i)** violating the terms of any agreement or other arrangement with any Third Party in existence, or **(ii)** having an obligation to pay any royalties or other consideration therefor that the other contracting Party declines to assume pursuant to the election procedures of Section 7.6.2(a) or Section 7.6.2(c), as applicable, at the time such Party would first be required hereunder to grant the other Party such access, license or sublicense.

"CRISPR" means clustered regularly interspaced short palindromic repeats.

"CRISPR System" means [***].

"Detail" means [***]. When used as a verb, the terms "Detail" or Detailing means to perform a Detail.

"Develop" or "Development" means any and all preclinical and clinical drug development activities, including test method development and stability testing, toxicology, animal efficacy studies, formulation, quality assurance/quality control development, statistical analysis, clinical studies, clinical trials and testing, regulatory affairs, product and service approval and registration, chemical development and development manufacturing, packaging development and manufacturing, and documentation efforts in support of development activities.

"Development Milestone" has the meaning set forth in Section 7.3.3.

"Diligence Package" has the meaning set forth in Section 2.2.5.

"directed," "directed to," "directed toward" means, with respect to any specific Product, that the Product derives its, therapeutic, prophylactic or palliative benefit from [***].

"Disclaiming Party" has the meaning set forth in Section 5.2.3(c).

"Effective Date" has the meaning set forth in the preamble.

"EMA" means the European Medicines Agency or any successor agency thereto.

"Equity Agreements" means that Unit Purchase Agreement, dated September 17, 2014, by and among Intellia Therapeutics, LLC, Atlas Venture Fund IX, L.P. and Novartis, and that Amended and Restated Operating Agreement of Intellia Therapeutics, LLC, dated as of September 17, 2014, each as amended, waived or superseded from time to time.

"EU" means the European Union, as its membership may be constituted from time to time, and any successor thereto [***].

"Excluded Intellia New In-Licensed Intellectual Property" has the meaning set forth in Section 7.6.2(a).

[***]

"Excluded In Vivo Targets" has the meaning set forth in Section 2.4.2(b).

"Excluded Novartis New In-Licensed Platform Intellectual Property" has the meaning set forth in Section 7.6.2(c).

"Expert" has the meaning set forth in Section 12.2.2(b)(i).

"Extensions" has the meaning set forth in Section 5.2.3(b).

"FDA" means the United States Food and Drug Administration or any successor agency thereto.

"First Commercial Sale" means the first arm's length sale of a Product by Novartis, its Affiliates, or their licensees to a Third Party (or an Intellia HSC Product by Intellia, its Affiliates, or their licensees to a Third Party) in a country following Regulatory Approval of such Product (or the Intellia HSC Product, as applicable) in that country or, if no such Regulatory Approval is required for the sale of a Product (or Intellia HSC Product) in a country, the date upon which such Product (or Intellia HSC Product) is first commercially launched in such country.

"FTE Rate" means a rate of [***] per FTE (as defined herein) per annum based on the yearly time of [***] full-time equivalent Qualified Scientific Employee during the Research Term, consisting of a total of [***] hours per annum ("FTE"), to be pro-rated on a daily basis if necessary (per annum amount to be divided by [***] to produce the rate per whole day consisting of [***] hours), such rate to be restricted to scientific work. For the purpose of this definition, a "Qualified Scientific Employee" means a scientist with adequate scientific knowledge, training, and experience to conduct the work assigned to him or her.

"FPFD" means, with respect to a clinical trial, the first dosing of the first patient in such clinical trial.

"Generic Equivalent" means, with respect to a particular Product in a country, any product that **(a)** has Regulatory Approval for use in such country pursuant to a regulatory process governing approval of generic, interchangeable or biosimilar pharmaceutical or

biological product based on the then-current standards for regulatory approval in such country, where such regulatory approval relied on or incorporated clinical data generated by either Party pursuant to this Agreement or was obtained using an abbreviated, expedited or other similar process; **(b)** during the Agreement Term, is not owned or licensed by Novartis (in the case of Products Commercialized by Novartis, its Affiliates, or their sublicensees) or by Intellia (in the case of Intellia Products Commercialized by Intellia, its Affiliates, or their sublicensees) under this Agreement, and **(c)** is sold in the same country as the relevant Product by a Third Party that is not a sublicensee of Novartis (in the case of Products Commercialized by Novartis, its Affiliates, or their sublicensees) or by Intellia (in the case of Intellia Products Commercialized by Intellia, its Affiliates, or their sublicensees), and that did not purchase such product in a chain of distribution that included Novartis or Intellia, as applicable, or of any of their respective Affiliates or sublicensees.

"GLP" means Good Laboratory Practices, as contemplated by 21 C.F.R. Part 58 in the United States, and the equivalent or corresponding provisions of Applicable Laws of other jurisdictions.

"GLP Toxicology" means a toxicology study that is commenced in compliance with GLP in a manner such that the resulting data would be admissible to applicable Regulatory Authorities to support an IND.

"Government Authority" means any domestic or foreign entity exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government, including any governmental authority, agency, department, board, commission, court, tribunal, judicial body or instrumentality of any union of nations, federation, nation, state, municipality, county, locality or other political subdivision thereof.

"HSC" means hematopoietic stem cells, [***].

"HSC Budget" has the meaning set forth in Section 2.2.2(b).

"HSC Field" means the *ex vivo* use of a CRISPR System directed to a Target to research, Develop, or Commercialize (including without limitation the provision of services, to the extent required for such Commercialization) HSC Products or services directed to a Target as a therapeutic, prophylactic, or palliative of any human disease. For the purpose of this definition, "*ex vivo*" means that the CRISPR System modification of the HSC occurs *ex vivo*, and the modified HSCs are then administered to patients.

"HSC Product" means a product or service that Novartis, its Affiliates, or their sublicensees is researching, Developing, or Commercializing for use in the HSC Field the research, development, manufacture, use, sale or import of which Practices Intellia Intellectual Property or Collaboration Intellectual Property.

"HSC Program" has the meaning set forth in Section 2.1.1.

"HSC Research Plan" has the meaning set forth in Section 2.2.2(a).

"HSC Steering Committee" has the meaning set forth in Section 3.1.2.

"HSC Target Product" means and includes any and all HSC Products directed to the [***].

"Included Intellia New In-Licensed Intellectual Property" has the meaning set forth in Section 7.6.2(a).

"Included Novartis New In-Licensed Platform Intellectual Property" has the meaning set forth in Section 7.6.2(c).

"IND" means an Investigational New Drug application in the US filed with the FDA or the corresponding application for the investigation of a Product in any other country or group of countries, as defined in the applicable laws and regulations and filed with the Regulatory Authority of such given country or group of countries.

"Indemnified Party" has the meaning set forth in Section 10.3.

"Indemnifying Party" has the meaning set forth in Section 10.3.

"Indication" means a specific disease, impairment, or medical condition that is the intended subject of a therapeutic, prophylactic, or palliative product or service. [***].

"Insolvency Event" means **(a)** a Party ceases to function as a going concern by suspending or discontinuing its business; **(b)** a Party becomes insolvent (*i.e.*, is unable to pay its debts as they become due); **(c)** a Party is the subject of voluntary or involuntary bankruptcy proceedings instituted on behalf of or against such Party (except for involuntary bankruptcy proceedings that are dismissed within [***] days); **(d)** an administrative receiver, receiver and manager, interim receiver, custodian, sequestrator, or similar officer is appointed for a Party; **(e)** a notice to convene a directors', shareholders', or creditors' meeting for the purpose of passing a resolution to wind up a Party is issued or such a resolution is passed; **(f)** a resolution will have been passed by a Party or the Party's directors to make an application for an administration order or to appoint an administrator; **(g)** a Party proposes or makes any general assignment, composition, or arrangement with or for the benefit of all or some of its creditors; or **(h)** a Party makes or suspends or threatens to suspend making payments to all or some of its creditors or submits to any type of a similar voluntary arrangement.

"Intellectual Property Rights" means Patent Rights and Know How.

[***]

[***]

[***]

"Intellia HSC Product" means a product or service in the HSC Field directed to an Intellia Selected HSC Target.

"Intellia Intellectual Property" means all Intellectual Property Rights Controlled by Intellia or its Affiliates relating to CRISPR Systems, or necessary or useful to research, Develop, manufacture or Commercialize products or services in the HSC Field, CART Field or In Vivo Field that are in existence **(a)** as of the Effective Date [***].

"Intellia Net Sales" has the meaning set forth in Section 7.4.8.

"Intellia New In-Licensed Intellectual Property" has the meaning set forth in Section 7.6.2(a).

"Intellia Platform" means Intellia's proprietary CRISPR System, as claimed by the Intellia Intellectual Property, together with all improvements thereto (including Collaboration Platform Intellectual Property).

"Intellia Selected HSC Targets" means the [***] HSC Targets selected by Intellia for its exclusive research under this Agreement in accordance with Section 2.2.3(a).

[***]

[***]

"In Vivo Budget" has the meaning set forth in Section 2.4.3.

"In Vivo Field" means the use of CRISPR System for the *in vivo* treatment or prevention of any human disease. By "*in vivo*", it is meant that the modification of the relevant Target occurs *in vivo*.

"In Vivo Product" means a product or service that Novartis, its Affiliates, or their sublicensees is researching, Developing, or Commercializing for use in the In Vivo Field the research, development, manufacture, use, sale or import of which Practices Intellia Intellectual Property or Collaboration Intellectual Property.

"In Vivo Program" has the meaning set forth in Section 2.1.1.

"In Vivo Research Plan" has the meaning set forth in Section 2.4.3.

"In Vivo Target Product" means and includes [***] In Vivo Products directed to the [***] Novartis Selected In Vivo Target.

"In Vivo Steering Committee" has the meaning set forth in Section 3.1.2.

"Invoice" means an invoice substantially in the form attached as *Exhibit A*.

"Joint Steering Committee" or "JSC" has the meaning set forth in Section 3.1.1.

"Key License Agreements" has the meaning set forth in Section 9.2(a).

"Know How" means any information, inventions, trade secrets or technology, whether or not proprietary or patentable and whether stored or transmitted in oral, documentary, electronic, or other form. Know How will include inventions, ideas, concepts, formulas, methods, procedures, designs, compositions, plans, documents, data, discoveries, developments, techniques, protocols, specifications, works of authorship, biological materials, and any information relating to research and development plans, experiments, results, compounds, therapeutic leads, candidates and products, services and service protocols, clinical and preclinical data, clinical trial results, and manufacturing information and plans.

"Labeled Indication" means any Indication of a Product as set forth in the Product's label as approved by the relevant Regulatory Authority. "Initial Labeled Indication" means any Labeled Indication upon a Product's initial receipt of Regulatory Approval (regardless of the number of Indications described). "Additional Labeled Indication" means any Labeled Indication added to a Product's label after the Initial Labeled Indication or expanding the scope of a previous Labeled Indication, which is approved by way of a supplemental Regulatory Approval (*e.g.*, by way of sNDA or sBLA) [***].

"Loss" has the meaning set forth in Section 10.1.

"Loss of Market Exclusivity" means, with respect to any Product in any country, the Net Sales of such Product in that country in any Calendar Year are less than [***]% as compared with the Net Sales of such Product in that country in the Calendar Year immediately preceding the marketing or sale of the first Generic Equivalent of such Product.

"Materials" means any materials provided or transferred by one Party or its Affiliates to the other Party or its Affiliates in connection with the Collaboration. In the

case of biological Materials, the term will encompass any medium in which the Materials are provided, any parts of the Materials [***], any modified or unmodified progeny of or descendant from the Materials [***].

"Milestone Payment" has the meaning set forth in Section 7.3.1.

"Milestones" has the meaning set forth in Section 7.3.1.

"Net Sales" means the net sales recorded by Novartis or any of its Affiliates or licensees [***]

[***]

"Nominated CART Program Target" has the meaning set forth in Section 2.3.

"Nominated HSC Target" has the meaning set forth in Section 2.2.1.

"Novartis HSC Background Intellectual Property" means the compound identified on *Exhibit B*, and any Patent Rights and Know How covering or claiming such compound, including its composition of matter, formulation, method of use or manufacture, but only with regards to such compound. For clarification purposes, Novartis HSC Background Intellectual Property does not include rights to any other compounds (including their composition of matter, formulation, method of use or manufacture) that may be covered or claimed by the same Patent Rights and Know How as those covering or claiming the compound identified on *Exhibit B*.

"Novartis New In-Licensed Platform Intellectual Property" has the meaning set forth in Section 7.6.2(c).

"Novartis Other Background Intellectual Property" means the Patent Rights and Know How identified on *Exhibit C*.

[***].

"Novartis Selected HSC Product" means an HSC Product directed to a Novartis Selected HSC Target that is researched, Developed, or Commercialized by Novartis, its Affiliates, or their sublicensees.

"Novartis Selected HSC Targets" means the [***] HSC Targets selected by Novartis for its exclusive research under this Agreement in accordance with Section 2.2.3(a).

"Novartis Selected In Vivo Product" means an In Vivo Product directed to a Novartis Selected In Vivo Target that is researched, Developed, or Commercialized by Novartis, its Affiliates, or their sublicensees.

"Novartis Selected In Vivo Target" has the meaning set forth in Section 2.4.2(a).

[***]

"Paragraph IV Certification" has the meaning set forth in Section 5.2.3(b).

"Party" and "Parties" has the meaning set forth in the preamble.

"Patent Rights" means patents and all substitutions, divisions, continuations, continuations-in-part, reissues, reexaminations, and extensions thereof and supplemental protection certificates relating thereto, and all counterparts thereof or substantial equivalents in any country (collectively, "Patents"), and any applications or provisional applications for any of the foregoing ("Patent Applications") and including the right to claim all benefits and priority rights to any Patent Applications under any applicable convention.

"Person" means any corporation, limited or general partnership, limited liability company, joint venture, trust, unincorporated association, governmental body, authority, bureau or agency, any other entity or body, or an individual.

"Personal Information" has the meaning set forth in Section 9.4.2.

"Phase II Trial" means a study in humans of the safety, dose ranging and efficacy of a product, as further defined in 21 C.F.R. § 312.21(b) or foreign counterparts, as may be conducted anywhere in the world.

"Phase IIa Trial" means a small scale Phase II Trial intended principally to demonstrate the proof of concept of a pharmaceutical product in humans to determine whether (and in what manner) to pursue Regulatory Approval of such product.

"Phase IIb Trial" means any controlled dose ranging Phase II Trial of a pharmaceutical product to further evaluate the efficacy and safety of the product in its target patient population and to define the product's optimal dosing regimen, as may be conducted anywhere in the world, and in any case that is designed to obtain data to select particular doses to be used in a Phase III Trial.

"Phase III Trial" means, with respect to a pharmaceutical product, a clinical trial on sufficient numbers of human patients that is designed to establish that such pharmaceutical product is safe and efficacious for its intended use, and to define warnings, precautions, and adverse reactions that are associated with such pharmaceutical product in the dosage range to be prescribed, that directly supports Regulatory Approval or label expansion of such pharmaceutical product, as described in 21 C.F.R. §312.21(c) or foreign counterparts, as may be conducted anywhere in the world.

[***]

[***]

[***]

[***]

[***]

[***]

"Practice" means, with respect to Patent Rights, to make, use, sell, offer for sale, or import (or have made, have used, have sold, have offered for sale, or have imported), and, with respect to Know How, to use, practice and disclose (or have used, practiced and disclosed).

"Prescriber" means a United States healthcare professional authorized to prescribe a pharmaceutical product or issue hospital orders for a pharmaceutical product, or those other allied professionals that are part of the treatment team and who are recognized for this purpose in the Commercialization plan, as applicable.

"Product" means, without distinction, a Collaboration Product [***].

"Program" means, without distinction, the HSC Program, the CART Program, and any In Vivo Program.

[***]

"Regulatory Approval" means, with respect to a pharmaceutical product or service in any country or jurisdiction, any approval, registration, license or authorization from a Regulatory Authority in a country or other jurisdiction that is reasonably necessary to market and sell a pharmaceutical product or to provide a service in such country or jurisdiction (including, *e.g.*, any applicable pricing and reimbursement approvals).

"Regulatory Authority" means any Governmental Authority responsible for authorizing or approving the marketing and/or sale of pharmaceutical products or services in a jurisdiction (*e.g.*, the FDA, EMA, the Japanese Ministry of Health, Labor and Welfare, and corresponding national or regional regulatory agencies or organizations).

"Regulatory Filing" means, with respect to any pharmaceutical product or service, any submission to a Regulatory Authority of any appropriate regulatory application, and will include, without limitation, any submission to a regulatory advisory board, marketing

authorization application, and any supplement or amendment thereto. For the avoidance of doubt, the term Regulatory Filings will include any IND, New Drug Application, or the corresponding application in under the Applicable Law of the other jurisdictions.

"Research Plans" means, collectively and without distinction, the HSC Research Plan, the CART Research Plan, and/or any In Vivo Research Plan.

"Research Program" means, without distinction, the HSC Program, the CART Program, and/or the In Vivo Program.

"Research Term" has the meaning set forth in Section 2.1.2.

[***]

"Royalty" has the meaning set forth in Section 7.4.1.

"Royalty Term" means, with respect to each Product in each country, the period commencing on the First Commercial Sale of such Product in such country and concluding on the later of **(a)** the expiration of the last to expire Valid Claim in the relevant country; or **(b)** ten years after the date of First Commercial Sale of such Product in that country.

"Sales Milestone" has the meaning set forth in Section 7.5.

"Sales Milestone Payment" has the meaning set forth in Section 7.5.

"Senior Officers" means [***].

[***]

"Subcommittees" has the meaning set forth in Section 3.1.2.

"Target" means [***].

"Third Party" means any Person other than Intellia or Novartis and their respective Affiliates.

"Third Party HSC Collaboration" has the meaning set forth in Section 2.2.5.

"Valid Claim" means a claim of an issued and unexpired Patent included within the Intellia Intellectual Property or the Collaboration Intellectual Property [***].

Section 1.2 Rules of Interpretation.

In this Agreement, unless otherwise specified:

(a) "includes" and "including" will mean including without limitation, and "or" will mean "and/or";

(b) a reference to an Article of this Agreement includes all Sections of that Article, and a reference to a Section of this Agreement includes all subsections of that Section;

(c) "herein," "hereby," "hereunder," "hereof" and other equivalent words refer to this Agreement as an entirety and not solely to the particular portion of this Agreement in which any such word is used;

(d) a "Party" includes its permitted assignees and/or the respective successors in title to substantially the whole of its undertaking;

(e) a statute or statutory instrument or any of their provisions is to be construed as a reference to that statute or statutory instrument or such provision as the same may have been or may from time to time hereafter be amended or re-enacted;

(f) words denoting the singular will include the plural and vice versa and words denoting any gender will include all genders;

(g) except where otherwise indicated, references to a "license" will include "sublicense" and references to a "licensee" will include "sublicensee", unless the context otherwise provides;

(h) the Exhibits form part of the operative provision of this Agreement and references to this Agreement will, unless the context otherwise requires, include references to the Exhibits;

(i) the headings in this Agreement are for convenience only and will not be considered in the interpretation of this Agreement; and

(j) the terms and conditions of this Agreement are the result of negotiations between the Parties and this Agreement will not be construed in favor of or against any Party by reason of the extent to which either Party participated in the preparation of this Agreement.

ARTICLE II
COLLABORATION

Section 2.1 Overview; Research Term; Efforts.

2.1.1 Goals. The Parties will engage in collaborative research activities in accordance with the terms and conditions of this Agreement and the Research Plans. As set forth in the Research Plans, the goals of these activities are to identify and research therapeutic, prophylactic, and palliative products and services utilizing **(a)** *ex vivo* HSC applications of the Intellia Platform (as described in the HSC Research Plan and Section 2.2 of this Agreement, the "HSC Program"), **(b)** *ex vivo* CART applications of the Intellia Platform (as described in the CART Research Plan and Section 2.3 of this Agreement, the "CART Program"), and **(c)** *in vivo* applications of the Intellia Platform (as described in any In Vivo Research Plan(s) and Section 2.4 of this Agreement, the "In Vivo Program"). The CART Program, HSC Program, and In Vivo Program collectively comprise the "Collaboration". During the Research Term, each Party shall conduct all activities relating to the HSC Field, CART Field, and, subject to Section 2.4.3, the In Vivo Field, as well as identification of Targets and the research and Development of Products directed to such Targets, under the corresponding HSC Research Plan, CART Research Plan, and, subject to Section 2.4.3, In Vivo Research Plan unless otherwise expressly provided by this Agreement.

2.1.2 Research Term. Unless terminated in accordance with Section 11.2, the Collaboration will commence on the Effective Date and expire on the fifth anniversary of the Effective Date (the "Research Term").

2.1.3 Efforts; Information Sharing Generally. During the Research Term, each Party will use Commercially Reasonable Efforts to carry out the activities assigned to it in the relevant Research Plan. Without limiting any other obligations set forth in this Agreement, at all times during the Research Term, each Party will keep the other Party reasonably and timely informed as to its Collaboration research efforts and results thereof.

Section 2.2 HSC Program.

2.2.1 HSC Program Generally. In the HSC Program, the Parties will research potential therapeutic, prophylactic, and palliative applications of the Intellia Platform in the HSC Field as provided in the HSC Research Plan. The Parties will initially conduct research activities in the HSC Field under the HSC Research Plan with respect to Targets nominated by the HSC Steering Committee (each, a "Nominated HSC Target"), and products and services directed to those Nominated HSC Targets. Selections pursuant 2.2.3 and 2.2.4 will be made from the pool of Nominated HSC Targets. [***]

2.2.2 Scope of HSC Program Activities; Research Plan.

(a) An initial research plan for the HSC Program (the "HSC Research Plan") will be agreed upon by the Parties not later than [***], and, as agreed, shall be deemed a part of this Agreement. The JSC may amend the HSC Research Plan from time to time to nominate or remove HSC Targets from the scope of the HSC Program [***] and to add, remove or modify research and Development activities assigned to either Party under the HSC Program.

(b) The HSC Steering Committee will amend the HSC Research Plan as necessary to reflect scientific developments as the HSC Program research activities progress, as well as the nomination or selection of any other Nominated HSC Targets. The HSC Research Plan will **(i)** define the scope of the HSC Program; **(ii)** describe the Parties' respective responsibilities in the HSC Program; **(iii)** describe the HSC Program's anticipated research timeline; **(iv)** include a

budget for Intellia's activities in the HSC Program (the "HSC Budget"), which must be consistent with the terms of this Agreement. If a conflict between the terms of the HSC Research Plan and the terms of this Agreement arises, the provisions of this Agreement will govern.

2.2.3 Selection of Exclusive Selected HSC Targets.

(a) During the Research Term, Novartis will have the right to select up to [***] HSC Targets (the "Novartis Selected HSC Targets") for its exclusive research, and Intellia will have the right to select up to [***] HSC Targets (the "Intellia Selected HSC Targets") for its exclusive research, in each case in the following manner:

[***]

(b) The rights set forth in Section 2.2.3(a) are subject to the following:

[***]

[***]

2.2.4 Selection of Additional Targets.

(a) During the Research Term and once the HSC Targets have been selected by the Parties pursuant to Section 2.2.3(a) [***], but in any event no later than [***] days prior to the expiration of the Research Term, Novartis will have the option to select up to an additional [***] HSC Targets (other than the Intellia Selected HSC Targets) on a non-exclusive basis (each, an "Additional Selected HSC Target"), subject to the payments set forth in Section 7.1.3.

(b) For clarity, unless the Parties agree otherwise in writing, during the Research Term there will not be more than **(i)** [***] HSC Targets comprising the Novartis Selected HSC Targets; **(ii)** [***] HSC Targets comprising the Additional Novartis Selected HSC Targets; and **(iii)** [***] HSC Targets comprising the Intellia Selected HSC Targets.

2.2.5 [***]

2.2.6 Diligence Obligations. Following the selection of each Novartis Selected HSC Target and any Additional Selected HSC Target, Novartis and its Affiliates will use Commercially Reasonable Efforts to research, Develop, and Commercialize [***] Novartis Selected HSC Product directed to such Novartis Selected HSC Target and [***] Additional Selected HSC Product directed to such Additional Selected HSC Target; *provided, however,* that if, after the Research Term, Novartis fails to use Commercially Reasonable Efforts, on an HSC Target by HSC Target basis, to research, Develop, and Commercialize at least one HSC Product directed to the relevant HSC Target, Intellia's exclusive remedy will be to **(a)** terminate Novartis' exclusive rights set forth in Section 4.1.2 and the 5.3.1(a) with respect to that Novartis Selected HSC Target or Additional Selected HSC Product (as applicable), and **(b)** terminate Novartis' license to Intellia Intellectual Property and Collaboration Platform Intellectual Property set forth in Section 5.3.1(a) or 5.3.1(c) (as applicable) with respect to that Selected HSC Target or Additional Selected HSC Product (as applicable).

2.2.7 [***]

Section 2.3 CART Program.

An initial research plan for the CART Program (the "CART Research Plan") will be agreed upon by the Parties not later than [***], and, as agreed, shall be deemed a part of this Agreement. In the CART Program, the Parties will initially conduct research activities in the CART Field under the CART Research Plan with respect to CART Program Targets nominated by the CART Steering Committee (each, a "Nominated CART Program Target"), and products and services relating to CART Therapeutic Targets utilizing those Nominated CART Program Targets. [***]. The CART Research Plan will be revised by the JSC from time to time to reflect developments in the CART Research Program, including to add, remove or modify research and Development activities assigned to each Party under the CART Program. The CART Research Plan will **(i)** define the scope of the CART Program; **(ii)** describe the Parties' respective responsibilities in the CART Program; **(iii)** describe the CART Program's anticipated research timeline; **(iv)** include a budget for Intellia's activities in the CART Program (the "CART Budget"), which must be consistent with the terms of this Agreement. If a conflict between the terms of the CART Research Plan and the terms of this Agreement arises, the provisions of this Agreement will govern. Following the creation of each CART Product, Novartis and its Affiliates will use Commercially Reasonable Efforts to research, Develop, and Commercialize [***] CART Product directed to the relevant CART Therapeutic Target; *provided, however,* that if Novartis fails to use Commercially Reasonable Efforts, on a CART Therapeutic Target by CART Therapeutic Target basis, to research, Develop, and Commercialize at least one Advanced CART Product directed to such CART Therapeutic Target, Intellia's exclusive remedy will be to **(a)** terminate Novartis' exclusive rights set forth in Section 4.2 and the 5.4.2 with respect to the relevant CART Therapeutic Target, and **(b)** terminate Novartis' license to Intellia Intellectual Property and Collaboration Platform Intellectual Property set forth in Section 5.3.2 with respect to such CART Therapeutic Target.

Section 2.4 In Vivo Program.

2.4.1 In Vivo Program Generally. Subject to Sections 2.4.2 and 2.4.3, in the In Vivo Program, the Parties will research potential therapeutic, prophylactic, and palliative products and services directed to In Vivo Targets utilizing the Intellia Platform.

2.4.2 Scope of Program.

[***]

(b) Selection of Novartis Selected In Vivo Targets.

(i) Subject to Section 2.4.2(b)(ii), following the [***] (the "In Vivo Selection Period"), Novartis may select a Target that it proposes to be included in the scope of the In Vivo Program (each such Target, a "Proposed In Vivo Target"). In such event, Novartis will notify Intellia in writing of such proposal and disclose in such notice its Proposed In Vivo Target. Within [***] days after disclosure of the Proposed In Vivo Target, Intellia will review in good faith the Proposed In Vivo Target to determine if it is an Excluded In Vivo Target and, if it is not an Excluded In Vivo Target, will notify Novartis that such Proposed In Vivo Target will be included in the In Vivo Program (such Proposed In Vivo Target, a "Novartis Selected In Vivo Target"), and, if it is an Excluded In Vivo Target, will notify Novartis that such Proposed In Vivo Target cannot be included in the In Vivo Program as a Novartis Selected In Vivo Target. For purposes of this Section 2.4.2(b), an "Excluded In Vivo Target" means [***]. In the event that Novartis, acting reasonably and in good faith, believes that its Proposed In Vivo Target was wrongfully rejected by Intellia as an Excluded In Vivo Target, Novartis will have the right to submit the dispute about such determination to accelerated arbitration in

accordance with the procedures of Section 12.2.2(b). If the Expert's decision finds that such Proposed In Vivo Target is an Excluded In Vivo Target, such Proposed In Vivo Target will remain excluded from the In Vivo Program hereunder, and, if the Expert's decision finds that such Proposed In Vivo Target was wrongfully characterized as an Excluded In Vivo Target, it will be deemed included in the scope of the In Vivo Program hereunder from the date of such decision.

(ii) [***]

(iii) A maximum of [***] Novartis Selected In Vivo Targets may be selected on a non-exclusive basis during the In Vivo Selection Period [***].

2.4.3 Research Plan. Following the selection of each Novartis Selected In Vivo Target, Novartis may, in its sole discretion, offer to Intellia the ability to participate with Novartis in research and Development activities for such Novartis Selected In Vivo Target and In Vivo Products directed thereto during the Research Term. If Novartis elects to ask Intellia to participate in such activities and Intellia accepts (in its sole discretion), the Parties will agree upon a research plan for such Novartis Selected In Vivo Target (each, an "In Vivo Research Plan"). Each In Vivo Research Plan will be revised by the JSC from time to time to add, remove or modify research and Development activities assigned to each Party thereunder. Each In Vivo Research Plan will **(a)** describe the Parties' respective research and Development responsibilities with respect to the relevant Novartis Selected In Vivo Target and In Vivo Products directed thereto; **(b)** describe the anticipated timeline for such activities; **(c)** include a budget for the activities to be performed by Intellia (the "In Vivo Budget"), which must include funding for Intellia's activities that is incremental to the funding under the HSC Budget and CART Budget, but in all other ways consistent with the terms of this Agreement. If a conflict between the terms of the In Vivo Research Plan and the terms of this Agreement arises, the provisions of this Agreement will govern. [***]

2.4.4 Diligence Obligation. Following the selection of each Novartis Selected In Vivo Target, Novartis and its Affiliates will use Commercially Reasonable Efforts to research, Develop, and Commercialize [***] Novartis Selected In Vivo Product directed to such Novartis Selected In Vivo Target [***].

Section 2.5 Recording of Targets.

Following the selection or identification of each Novartis Selected HSC Target [***], Additional Selected HSC Target, Advanced CART Target, Novartis Selected In Vivo Targets [***], such Target will be added a list maintained by the JSC and deemed an Exhibit to this Agreement.

Section 2.6 Subcontracting Research Activities.

Each Party may subcontract any of the research activities to be performed by it in the Collaboration to a Third Party, *provided* that such Third Party will have entered into a written agreement with such Party that includes terms and conditions protecting and limiting use and disclosure of Confidential Information, Materials and Know-How of the other Party that are at least protective of such Confidential Information, Material and Know-How as under this Agreement and requiring such Third Party and its personnel to assign to such Party all right, title and interest in and to any Patents, Know-How and Materials created, conceived of, or developed in connection with the performance of subcontracted activities to the extent required for such Party to comply with the terms and conditions of this Agreement as if such subcontracted activities were performed by the subcontracting Party (including Article IV, Article V, and Article VI).

ARTICLE III
GOVERNANCE

Section 3.1 Establishment of Joint Steering Committee and Subcommittees.

3.1.1 Joint Steering Committee. [***] the Parties will establish a Joint Steering Committee (the "Joint Steering Committee" or "JSC"). The JSC will assume a general role of leadership in the Collaboration and will have responsibility for:

(a) facilitating communications between the Parties with respect to the research activities contemplated by this Agreement;

(b) overseeing the HSC Steering Committee, the CART Steering Committee, and the In Vivo Steering Committee;

(c) reviewing and approving changes to the HSC Research Plan, CART Research Plan, and In Vivo Research Plan that are proposed by the relevant Subcommittee;

(d) reviewing staffing and personnel issues, with the goal of maintaining, when determined appropriate, the continuity of personnel on Collaboration activities and reasonably evaluating, when determined appropriate, changes to the staffing of the Collaboration;

(e) coordinating strategies relating to Patent Rights claiming Collaboration Product Intellectual Property;

(f) prioritizing the allocation of resources dedicated to the Collaboration; and

(g) informally resolving disagreements between the Parties;

(h) facilitating discussions between the Parties with respect to potential collaborations and other activities related to the CRISPR System not contemplated by this Agreement [***].

The JSC will be comprised of [***] representatives from each of Intellia and Novartis, which (unless otherwise agreed upon between the Parties), will be equal to [***] members of each Party. The JSC will meet at least [***] (or more if agreed upon) in Cambridge, Massachusetts, unless otherwise agreed by the Parties.

3.1.2 Research Program Subcommittees. Within [***] days after the initial meeting of the JSC, the JSC will appoint the members of subcommittees for the HSC

Program (the "HSC Steering Committee") and CART Program (the "CART Steering Committee"). Within [***] days after the finalization of the first In Vivo Research Plan, the JSC will appoint the members of a subcommittee for the In Vivo Program (the "In Vivo Steering Committee"). The HSC Steering Committee, CART Steering Committee, and In Vivo Steering Committee are each without distinction referred to as a "Subcommittee" and are collectively referred to as the "Subcommittees". Members of any Subcommittee may be, but are not required to be, members of the JSC; *provided*, that each Subcommittee will have [***] representatives of both Parties. The Subcommittees will provide oversight of the respective Research Programs and will have responsibility for:

(a) determining the direction and planned activities of the respective Research Programs in compliance with the Research Plans;

(b) sharing information arising in the respective Research Programs between the Parties;

(c) coordinating activities relating to filing and prosecuting of Patent Applications and Patents claiming Collaboration Product Intellectual Property;

(d) coordinating research activities in the respective Research Programs in compliance with the Research Plans; and

(e) proposing amendments to the respective Research Plans, which must be approved by the JSC.

Each Subcommittee will be comprised of [***] representatives from each of Intellia and Novartis, which (unless otherwise agreed upon between the JSC) will be equal to [***] members of each Party. Subcommittee members may be, but need not be, members of the JSC. Each Subcommittee will meet at least [***] (or more if agreed upon), in alternation at the place designated by Novartis and the place designated by Intellia, in accordance with Section 3.2.4.

Section 3.2 General Rules.

3.2.1 Powers of the Committees; Term. Each of the Joint Steering Committee, the HSC Steering Committee, the CART Steering Committee, and the In Vivo Steering Committee (each, a "Committee") will have solely the roles and responsibilities assigned to it in this Article III and as otherwise expressly set forth in this Agreement. The Committees will have no authority to amend or modify this Agreement or waive compliance with this Agreement, to make decisions that conflict with the terms and conditions of this Agreement, or to create new obligations for a Party not specified in this Agreement. Neither the Committees nor either Party exercising its final decision making pursuant to Section 3.2.5 will have authority to alter, increase, expand, modify, amend, or waive compliance with this Agreement. The Committees will terminate on the expiration of the Research Term.

3.2.2 Committee Membership. Either Party may replace its respective committee representatives at any time upon prior written notice to the other Party. If a Committee member from either Party is unable to attend or participate in a Committee meeting, the Party who designated such representative may designate a substitute representative for the meeting in its sole discretion. The Alliance Managers appointed by Intellia and Novartis pursuant to Section 3.4 will be *ex officio* members of each of the Committees. With the consent of the other Party, each Party may invite up to [***] non-voting employees, consultants, and scientific advisors to attend any Committee meeting to discuss issues arising in the Collaboration; *provided* that any such employees, consultants, or scientific advisors will be subject to restrictions regarding the confidentiality and non-use of Confidential Information no less restrictive than the provisions of Article VIII.

3.2.3 Committee Co-Chairs. Each Party will appoint one of its members in each Committee to co-chair such Committee's meetings (each, a "Co-Chair"). The Co-Chairs will **(a)** ensure the orderly conduct of the Committee's meetings, **(b)** attend each Committee meeting (either in-person, by videoconference or telephonically, unless

otherwise expressly provided herein), and **(c)** prepare and issue written minutes of each meeting within [***] thereafter accurately reflecting the discussions and decisions of such meeting. If the Co-Chair from either Party is unable to attend or participate in a Committee meeting, the Party who designated such Co-Chair may designate a substitute Co-Chair for the meeting in its sole discretion.

3.2.4 Committee Meetings. All meetings will be conducted in English and may be conducted by telephone, videoconference, or in person as determined by the Co-Chairs, as appropriate; *provided* that not less than [***] prior written notice has been given to the other Party. Either Party may also call a special meeting of a Committee (by videoconference or teleconference) by at least [***] prior written notice to the other Party if such Party reasonably believes that a significant matter must be addressed prior to the next regularly scheduled meeting, and no later than [***] prior to the special meeting, such Party will provide the Committee with materials reasonably adequate to enable such Committee to make an informed decision.

3.2.5 Decision Making. Other than as set forth herein, in order to make any decision required of it hereunder, a Committee must have present (in person, by videoconference or telephonically) at least the Co-Chair of each Party (or his/her designee for such meeting). The Parties will endeavor to make decisions where required of a Committee by consensus of the Co-Chairs. If a dispute or failure to agree arises in a Subcommittee that cannot be promptly resolved, the Co-Chairs of any Subcommittee may cause such dispute or failure to agree to be referred to the Joint Steering Committee for resolution. If a dispute or failure to agree arises which cannot be promptly resolved within the Joint Steering Committee, then the matter will be referred to the Senior Officers of the Parties for discussion. The Senior Officers will attempt in good faith to resolve such dispute or failure to agree by unanimous consent. If the Senior Officers cannot resolve such dispute or failure to agree within [***] days of the matter being referred to them, then the resolution and/or course of conduct will be determined as follows:

[***]

Section 3.3 Day-to-Day Decision-Making Authority.

Each Party will have day-to-day decision-making authority with respect to the research activities assigned to it in any Research Plan.

Section 3.4 Alliance Managers.

Each of Intellia and Novartis will appoint a senior representative who possesses a general understanding of research matters to act as its alliance manager for the Collaboration (each, an "Alliance Manager"). Each Party may replace its respective Alliance Manager at any time upon written notice to the other in accordance with this Agreement. Any Alliance Manager may designate a substitute to temporarily perform the functions of that Alliance Manager. Each Alliance Manager will be charged with creating and maintaining a collaborative work environment within and among the Committees. Each Alliance Manager will also be responsible for **(a)** providing a single point of communication and facilitating the flow of information; **(b)** ensuring that the governance procedures and the rules set forth herein are complied with; **(c)** identifying and raising disputes to the relevant Committee for discussion in a timely manner; and **(d)** planning and coordinating internal and external communications in accordance with the terms of this Agreement. The Alliance Managers will be entitled to attend all Committee meetings. Each Alliance Manager may bring to the attention of the Committees any matter that the Alliance Manager reasonably believes requires the attention of the relevant Committees.

Section 3.5 Cost of Governance.

The costs incurred by each Party in connection with its participation at any meetings under this Article III will be borne solely by such Party.

Section 3.6 Development.

3.6.1 Development Generally. After the Research Term and subject to Sections 3.6.2, 5.4.1(a) and (b), 5.4.2 and 5.4.3, Novartis will be solely responsible for conducting, at its sole expense, the Development of its Products as it determines appropriate in its sole discretion.

3.6.2 Regulatory.

(a) [***].

(b) [***].

(c) [***].

(d) Novartis will have the right to disclose the existence of, and the results from, any clinical trials for any Product, conducted under this Agreement in accordance with its standard policies.

Section 3.7 Manufacturing.

3.7.1 Manufacturing Generally. Novartis or its designated sublicensee(s) will be solely responsible for the manufacture and supply of its Products being Developed or Commercialized under this Agreement.

3.7.2 Manufacturing Know-How and Assistance.

(a) During the Agreement Term, to the extent reasonably necessary, Intellia will, at Novartis' expense, provide all reasonable cooperation and assistance to Novartis or its designee [***] to enable Novartis or its designee in an efficient and timely manner to proceed with Development and manufacturing of its Products and to obtain all appropriate Regulatory Approvals for manufacturing (including qualification by the applicable Regulatory Authority of manufacturing sites).

(b) Intellia will make appropriate personnel available to assist Novartis or its designee, at Novartis' expense [***] from time to time as reasonably requested by Novartis, and will provide the appropriate personnel of Novartis or its designee with access to the personnel and manufacturing and other operations of Intellia for such periods of time and in such manner as is reasonable in order to familiarize the personnel of Novartis or its designee with Intellia Know-How (if any) relating to the Development and manufacture of the Products and the application of the same.

(c) Intellia will reasonably cooperate, at Novartis' expense, with Novartis in complying with requirements of 35 U.S.C. §§200 through 212 [***].

(d) The Parties acknowledge that this obligation may continue after the Research Term has expired.

Section 3.8 Commercialization.

3.8.1 Commercialization Generally. Except as provided in Section 3.8.2, Novartis will be solely responsible for all aspects of Commercialization of its Products (in its sole discretion) including planning and implementation, distribution, booking of sales, pricing, and reimbursement.

3.8.2 Co-Detailing Rights.

(a) Subject to this Section 3.8.2, Intellia shall have the right to co-detail in the United States [***] Collaboration Products researched or Developed under this Agreement. In that connection and until Intellia has selected such [***] Collaboration Products to co-detail, at least [***] months before the planned submission of any Regulatory Filing seeking Regulatory Approval in the United States for a Product under this Agreement, Novartis will notify Intellia [***] (the "Co-Detail Notice") and will provide Intellia with information reasonably necessary for Intellia to evaluate the Co-Detail opportunity [***]. If Intellia wishes to Co-Detail any such Product in the United States, it will provide notice in writing to Novartis of such election no later than [***] after its receipt of the Co-Detail Notice, which notice will contain the information as further described in Section 3.8.2(b)(i) and Section 3.8.2(b)(ii) (the "Co-Detail Option Exercise Notice"). Prior to giving any such notice, Intellia may request reasonable discussions with and information from Novartis regarding the expected activities, which the Parties will conduct in good faith. If Intellia does not respond within the relevant [***] period, Intellia will be deemed to have declined to exercise its rights to Co-Detail the relevant Product. If Intellia elects not to Co-Detail the relevant Product offered to it by Novartis, Intellia will have the right to elect to Co-Detail any other Product offered to Intellia by Novartis on the same terms as provided above until Intellia has selected [***] such Products for Co-Detailing, at which time Intellia's right to Co-Detail any Products hereunder will terminate; *provided, however,* that, as long as Novartis has provided the Co-Detail Notice to Intellia for all relevant Collaboration Products that could have been selected by Intellia prior to the termination of Novartis' obligation to provide such notice under this Section 3.8.2(a), even if Intellia has not selected [***] Collaboration Products for detailing, its right to make such selection and Novartis' obligation to provide the Co-Detail Notice shall expire on the date that is [***].

(b) Any Co-Detail Option Exercise Notice provided by Intellia will:

(i) specify Intellia's desired level of participation in the Co-Detail of the relevant Product in the United States on a percentage basis up to a maximum of [***] of the total projected Detailing effort for Products in the United States as specified in the Co-Detail Notice (the "Intellia Co-Detail Effort"), with such percentage calculated [***]; and

(ii) be accompanied by reasonably detailed plans outlining Intellia's sales force and sales force infrastructure to be deployed to provide the Intellia Co-Detail Effort to Novartis' reasonable satisfaction at least [***] before the First Commercial Sale of such Product in the United States.

(c) Promptly following receipt of Intellia's Co-Detail Option Exercise Notice, Novartis and Intellia will commence negotiations in good faith and enter into a more detailed co-detailing agreement (the "Co-Detailing Agreement") within [***] days of Novartis' receipt of Intellia's Co-Detail Option Exercise Notice. The Co-Detailing Agreement will contain reasonable and customary provisions for an agreement of such type [***].

(d) The Parties acknowledge that such Co-Detailing Agreement will be a separate agreement between the Parties and that a breach of that agreement by either Party that is not a breach by such Party of the other sections of this Agreement will not give rise to a right to terminate this Agreement.

[***]

3.8.3 Pharmacovigilance. To the extent required by Applicable Law, within [***], the Parties will agree upon and implement a procedure for the mutual exchange of adverse event reports and safety information associated with the Product. Details of the

operating procedure relating to the adverse event reports and safety information exchange will be the subject of a mutually-agreed written pharmacovigilance agreement between the Parties which will be entered into within such [***] period.

Section 3.9 Intellia HSC Products.

Intellia will be solely responsible for **(a)** all Development of the Intellia HSC Products, **(b)** all regulatory plans and strategies for the Intellia HSC Products, and all Regulatory Filings and all Regulatory Approvals for the Intellia HSC Products to be filed, obtained and maintained throughout the world in the name of Intellia or its Affiliates or sublicensees, **(c)** all manufacture and supply for the Intellia HSC Products, and **(d)** all aspects of Commercialization of the Intellia HSC Products. [***]. Intellia will have the right to disclose the existence of, and the results from, any clinical trials for any Intellia HSC Product, conducted under this Agreement in accordance with its standard policies.

Section 3.10 Debarment.

In performing its obligations under this Agreement, neither Party nor its Affiliates will employ or use any person that has been debarred under Section 306(a) or 306(b) of the U.S. Federal Food, Drug and Cosmetic Act.

ARTICLE IV
RESTRICTIVE COVENANTS

Section 4.1 HSC.

4.1.1 During the Research Term. During the Research Term and except as expressly contemplated by this Agreement [***], the Parties and their Affiliates will not **(a)** engage in any research, Development, or Commercialization activities in the HSC Field [***] **(b)** grant to any Third Party any assignment, license, or other right to Practice Intellia Intellectual Property, Novartis HSC Background Intellectual Property, Novartis Other Background Intellectual Property or Collaboration Intellectual Property in the HSC Field [***].

4.1.2 After the Research Term.

(a) Following the Research Term and during the Agreement Term [***], Intellia and its Affiliates will not (directly or indirectly), **(i)** for themselves or on behalf of or in collaboration with any Third Party, engage in any research, Development, or Commercialization activities in the HSC Field with respect to **(1)** such Novartis Selected HSC Product, or **(2)** the Novartis Selected HSC Target that such Novartis Selected HSC Product is directed toward;

or **(ii)** grant to any Third Party any assignment, license, or other right to Practice Intellia Intellectual Property or Collaboration Intellectual Property in the HSC Field with respect to **(1)** such Novartis Selected HSC Product, or **(2)** the Novartis Selected HSC Target that such Novartis Selected HSC Product is directed toward.

(b) Following the Research Term and during the Agreement Term [***], Novartis and its Affiliates will not (directly or indirectly), **(i)** for themselves or on behalf of or in collaboration with any Third Party, engage in any research, Development, or Commercialization activities in the HSC Field with respect to (**1**) such Intellia HSC Product, or (**2**) the Intellia Selected HSC Target that such Intellia HSC Product is directed toward; or **(ii)** grant to any Third Party any assignment, license, or other right to Practice the Novartis HSC Background Intellectual Property, Novartis Other Background Intellectual Property or Collaboration Intellectual Property in the HSC Field with respect to (**1**) such Intellia HSC Product, or (**2**) the Intellia Selected HSC Target that such Intellia HSC Product is directed toward.

(c) Following the Research Term and during the Agreement Term [***], Intellia and its Affiliates will not (directly or indirectly), **(i)** for themselves or on behalf of or in collaboration with any Third Party, engage in any research, Development, or Commercialization activities in the HSC Field with respect to such Additional Selected HSC Product; or **(ii)** grant to any Third Party any assignment, license, or other right to Practice Collaboration Product Intellectual Property in the HSC Field with respect to such Additional Selected HSC Product.

(d) [***].

(e) [***].

Section 4.2 CART.

4.2.1 During the Research Term. During the Research Term and except as expressly contemplated by this Agreement [***], the Parties and their Affiliates will not **(a)** engage in any research, Development, or Commercialization activities in the CART Field [***], or **(b)** grant to any Third Party any assignment, license, or other right to Practice Intellia Intellectual Property, Novartis HSC Background Intellectual Property, Novartis Other Background Intellectual Property or Collaboration Intellectual Property in the CART Field. [***].

4.2.2 After the Research Term. Following the Research Term and during the Agreement Term [***], Intellia and its Affiliates will not (directly or indirectly), **(i)** for themselves or on behalf of or in collaboration with any Third Party, engage in any research, Development, or Commercialization activities in the CART Field [***]; or **(ii)** grant to any Third Party any assignment, license, or other right to Practice Intellia Intellectual Property or Collaboration Intellectual Property in the CART Field with respect to **(1)** such Advanced CART Product, or **(2)** the CART Therapeutic Target that such Advanced CART Product is directed toward.

4.2.3 [***]

Section 4.3 In Vivo.

[***]

Section 4.4 Permitted Third Party Arrangements.

Nothing in this Article IV will prohibit either Party from obtaining licenses, assignments, or other rights to Intellectual Property Rights from Third Parties, to the extent such Party deems that such Intellectual Property Rights are necessary or useful to the exercise of its rights or performance of its obligations under this Agreement [***].

ARTICLE V
INTELLECTUAL PROPERTY

Section 5.1 Limited Grants for Research Programs.

5.1.1 License Grant by Novartis. Novartis hereby grants to Intellia a worldwide, non-exclusive license to Practice the Novartis HSC Background Intellectual Property and Novartis Other Background Intellectual Property solely to the extent necessary for Intellia and its Affiliates to perform the activities assigned to them in the Collaboration.

5.1.2 License Grant by Intellia. Intellia hereby grants to Novartis and its Affiliates a worldwide, non-exclusive license to Practice the Intellia Intellectual Property solely to the extent necessary for Novartis and its Affiliates to perform the activities assigned to them in the Collaboration [***].

5.1.3 Sublicensing Research Program Activities. Subject to the provisions of Section 2.6, each of the Parties will have the right to grant a sublicense to the rights set forth in this Section 5.1 to Third Party vendors, service providers, and collaborators, solely for Practice in connection with goods or services provided to or on behalf of such Party for the Collaboration as specified in the HSC Research Plan, CART Research Plan, and In Vivo Research Plan.

5.1.4 Term of Research License. The licenses contemplated by Section 5.1.1, Section 5.1.2 and Sections 5.3.1(a)(i), 5.3.2(a)(i), 5.3.2(a) and 5.3.3 (a) will automatically terminate on the expiration of the Research Term.

Section 5.2 Collaboration Intellectual Property.

5.2.1 Generally. Notwithstanding inventorship, **(a)** Collaboration Product Intellectual Property will be jointly owned by the Parties; and **(b)** Collaboration Platform Intellectual Property is hereby assigned to and solely owned by Intellia.

5.2.2 Rights to Collaboration Intellectual Property. Except as provided in Article IV and the exclusive rights set forth in Section 5.4, both Parties and their Affiliates may Practice and grant licenses to Collaboration Product Intellectual Property for all purposes worldwide without the consent of or any accounting to the other Party (other than payments contemplated by Article VII).

5.2.3 Prosecution and Maintenance of Collaboration Intellectual Property Patent Rights.

(a) [***].

(b) Each Party will cooperate with the other with respect to such activities involving the Collaboration Intellectual Property, including the execution of all such documents and instruments and the performance of such acts (and causing its relevant employees to execute such documents and instruments and to perform such acts) as may be reasonably necessary in order to permit the other Party to continue any preparation, filing, prosecution, or maintenance of Patent Rights claiming the Collaboration Intellectual Property. The prosecuting Party will keep the other Party reasonably informed of all material matters relating to the preparation, filing, prosecution and maintenance of, and any post-grant proceedings on [***] the Patent Rights within the Collaboration Product Intellectual Property and [***] the Patent Rights within the Collaboration Platform Intellectual Property (including providing such other Party with copies of all material correspondence with the applicable patent offices) and will reasonably consider such other Party's comments relating to prosecution and maintenance decisions, or defenses or responses to any post-grant proceedings.

Upon either Party's request and where permitted by Applicable Law, the other Party will assist the requesting Party to obtain patent term extensions or supplemental protection certificates or their equivalents in any country ("Extensions") for Patent Rights included in the Collaboration Intellectual Property. Each Party will promptly notify and provide the other Party with copies of any allegations of alleged lack of patentability, patent invalidity, unenforceability or non-infringement, including any such allegation pursuant to a Paragraph IV Patent Certification by a Third Party filing an Abbreviated New Drug Application or an application under §505(b)(2) of the United States Federal Food, Drug, and Cosmetic Act (as amended or any replacement thereof), in relation to an application under Section 262(k) of the Biosimilar Act, or any other similar patent certification by a Third Party, and any foreign equivalent thereof ("Paragraph IV Certification") of any Patent Rights included in the Collaboration Intellectual Property. Such notification and copies will be provided to such other Party within [***] after Novartis or Intellia, as applicable, receives such certification.

(c) If a Party (a "Disclaiming Party") elects not to file applications for, or to cease prosecution and/or maintenance of, or not to continue to pay the expenses of prosecution and/or maintenance of, any Patent Rights included in the Collaboration Intellectual Property for which it is primarily responsible pursuant to this Section 5.2.3, the Disclaiming Party will provide such notice to the other Party at least [***] prior to any filing or payment due date (or any other due date that requires action) in connection with such Patent Rights. In such event, the Disclaiming Party will permit the other Party, at its sole discretion and expense, to file or to continue prosecution or maintenance of such Patent Rights.

5.2.4 Enforcement or Defense of Collaboration Intellectual Property Patent Rights.

(a) In the event either Party becomes aware of any actual or suspected infringement of, or a claim of invalidity, lack of patentability, unenforceability or non-infringement against, the Patent Rights claiming the Collaboration Intellectual Property (any of which, a "Collaboration Patent Rights Challenge"), such Party shall provide prompt written notice thereof to the other Party; *provided* that, if the Party becomes aware of a Collaboration Patent Rights Challenge based on a notification (which is not a Paragraph IV Certification) from a Third-Party, then the Party receiving such notification will provide copies of such notification to the other Party no later than [***] after Novartis or Intellia, as applicable, receives such notification.

(b) [***]. The Party bringing the relevant suit (the "Enforcing Party") shall keep the other Party reasonably informed of all developments in the prosecution or settlement of such suit. [***]. Such other Party will provide the Enforcing Party with reasonable assistance in connection with its suit, at the Enforcing Party's expense, including by executing reasonably appropriate documents, cooperating in discovery, and joining as a party to the suit if required, in connection with any litigation commenced pursuant to this Section 5.2.4.

(c) Any recoveries resulting from such a suit will be first applied against payment of each Party's costs and expenses in connection therewith [***].

Section 5.3 Intellia Intellectual Property; Novartis HSC Background Intellectual Property; Novartis Other Background Intellectual Property.

5.3.1 Novartis Selected HSC Products; Intellia HSC Products.

(a) Novartis Selected HSC Products. Intellia hereby grants to Novartis and its Affiliates a worldwide license to Practice the Intellia Intellectual Property and Collaboration Platform Intellectual Property **(i)** during the Research

Term, to research and Develop HSC Products (other than Intellia HSC Products directed at Intellia Selected HSC Targets) under the HSC Research Plan; and **(ii)** during and after the Research Term, to research, Develop, and Commercialize any Novartis Selected HSC Products and Additional Selected HSC Products in the HSC Field. [***]. Subject to Section 5.3.4 and Section 2.6, Novartis and its Affiliates will have the right to sublicense the rights [***] to Third Party vendors, service providers, and collaborators, solely for Practice in connection with the research, Development, and Commercialization of such Novartis Selected HSC Products and Additional Selected HSC Products in the HSC Field.

(b) Intellia HSC Products. Novartis hereby grants to Intellia and its Affiliates a worldwide, non-exclusive license to Practice the Novartis HSC Background Intellectual Property **(i)** during the Research Term, to research and Develop HSC Products; and **(ii)** during and after the Research Term, to research, Develop, and Commercialize any Intellia HSC Products in the HSC Field (the "Novartis HSC Background IP License"). Subject to Section 5.3.4 and Section 2.6, Intellia and its Affiliates will have the right to sublicense the Novartis HSC Background IP License [***] to Third Party vendors, service providers, and collaborators, solely for Practice in connection with the research, Development, and Commercialization of such Intellia HSC Products.

5.3.2 CART Products. Intellia hereby grants to Novartis and its Affiliates a worldwide license to Practice the Intellia Intellectual Property and Collaboration Platform Intellectual Property **(a)** during the Research Term, to research and Develop any CART Products under the CART Research Plan; and **(b)** during and after the Research Term, to research, Develop, and Commercialize any CART Products in the CART Field. [***]. Subject to Section 5.3.4 and Section 2.6, Novartis and its Affiliates will have the right to sublicense such rights [***] to Third Party vendors, service providers, and collaborators, solely for Practice in connection with the research, Development, and Commercialization of such CART Products.

5.3.3 In Vivo Products. Intellia hereby grants to Novartis and its Affiliates a worldwide, non-exclusive license to Practice the Intellia Intellectual Property and Collaboration Platform Intellectual Property **(a)** following [***] of the Effective Date and for the remainder of the Research Term, to research and Develop In Vivo Products under any In Vivo Research Plans; and **(b)** after the Research Term, to research, Develop, and Commercialize any Novartis Selected In Vivo Products in the In Vivo Field. Subject to Section 5.3.4 and Section 2.6, Novartis and its Affiliates will have the right to sublicense such rights through multiple tiers to Third Party vendors, service providers, and collaborators, solely for Practice in connection with the research, Development, and Commercialization of such Novartis Selected In Vivo Products.

5.3.4 Sublicensing Rights. Novartis and its Affiliates may grant sublicenses of the license granted in Section 5.3.1(a), Section 5.3.2, and Section 5.3.3, and Intellia and its Affiliates may grant sublicenses of the license granted in Section 5.3.1(b), *provided* that **(a)** such sublicense **(i)** is in writing, **(ii)** is subject and subordinate to, and consistent with, the terms and conditions of this Agreement, and **(iii)** requires the applicable sublicensee to comply with all applicable terms of this Agreement [***]; **(b)** with respect to Novartis or any of its Affiliates as the sublicensing Party to the extent required by the Key License Agreements as in effect on the Effective Date or the agreements for any Included Intellia New In-Licensed Intellectual Property, Novartis promptly notifies Intellia of the grant of each sublicense and provides Intellia a copy of the final executed sublicense agreement, redacted for information not pertinent to this Agreement to the extent that such redactions do not reasonably impair Intellia's ability to ensure compliance with this Agreement, the Key License Agreements or agreements for any Included Intellia New In-Licensed Intellectual Property, as applicable, **(c)** Novartis or Intellia, as applicable, shall be responsible for the failure by its sublicensees to comply with, and Novartis or Intellia, as applicable, guarantees the compliance by each of its sublicensees with, all relevant restrictions, limitations and obligations in this Agreement, and [***].

5.3.5 Maintenance & Compliance of License Agreements.

(a) With respect to the Intellectual Property Rights that are licensed to Intellia under any license agreement comprising the Key License Agreements, **(i)** Intellia will use Commercially Reasonable Efforts to maintain the relevant license agreement in full force and effect; **(ii)** Intellia will provide prompt written notice to Novartis if it becomes aware of or receives any notice that Intellia or its licensor is in breach or default of any such license agreement, **(iii)** Intellia will use Commercially Reasonable Efforts to cure such breach or default [***], and **(iv)** Intellia will not cause the Key License Agreements to be amended or modified in any way that would reasonably be expected to have a material adverse effect on Novartis' rights under this Agreement [***]; **(v)** if Intellia becomes aware that any of its licensors has terminated or receives notice that any of its licensors intend to terminate any such license agreement or otherwise materially restrict or limit Intellia's and Novartis' rights to the relevant Intellectual Property Rights, **(A)** Intellia will provide prompt written notice to Novartis [***].

(b) The licenses granted to Novartis and its Affiliates under Sections 5.3.1(a), 5.3.2 and 5.3.3 will be subject to Novartis' and its Affiliates', and their sublicensees' compliance as of the Effective Date with the terms of the Key License Agreements [***] and the terms of the agreements for any Included Intellia New In-Licensed Intellectual Property, as applicable.

5.3.6 Novartis Other Background Intellectual Property. Novartis hereby grants to Intellia and its Affiliates a worldwide, non-exclusive, fully paid and royalty-free license to Practice the Novartis Other Background Intellectual Property to research, Develop, and Commercialize Intellia HSC Products and therapeutic, prophylactic, and/or palliative CRISPR-based *in vivo* products by or on behalf of Intellia or its Affiliates. Subject to Section 5.3.4 and Section 2.6, Intellia and its Affiliates will have the right to sublicense the license granted under this Section 5.3.6 [***] to Third Party vendors, service providers, and collaborators, solely for Practice in connection with the research,

Development, and Commercialization of such Intellia HSC Products and therapeutic, prophylactic, and/or palliative CRISPR-based *in vivo* products with (*e.g.*, collaborations) or on behalf of Intellia or its Affiliates. Novartis will have the right to terminate rights [***] upon written notice to Intellia in the event that Intellia or any of its Affiliates [***] (an "Intellia Other Patent Challenge"). In the event Intellia or any of its Affiliates intends to assert an Intellia Other Patent Challenge [***] not less than [***] days prior to making any such assertion, Intellia shall provide to Novartis a complete written disclosure of each basis known to Intellia for such assertion. Novartis must exercise its right to terminate Intellia's rights [***] within [***] days of the Novartis' receipt of service of process (or its equivalent) in the relevant administrative or legal proceeding, [***].

Section 5.4 Exclusivity.

5.4.1 HSC.

(a) [***].

(b) [***]

5.4.2 CART Program. [***].

5.4.3 In Vivo Program. [***].

Section 5.5 Licenses in Bankruptcy.

All licenses granted under or pursuant to this Agreement are intend to be licenses of intellectual property as contemplated by Section 365(n) of the United States Bankruptcy Code and equivalent or corresponding provisions of Applicable Laws of other jurisdictions. Each licensee may retain and may fully exercise all of its protections, rights, and elections under all Applicable Laws.

Section 5.6 No Implied Licenses.

The licenses set forth in this Article V are limited in scope to those expressly set forth in this Agreement, and no implied license is intended to be created by this Agreement.

ARTICLE VI
[***]

[***]

ARTICLE VII
PAYMENTS

Section 7.1 Technology Access Fee; Annual Access Fee; Equity.

7.1.1 Upfront Technology Access Fee Payment. Novartis will make a one time payment of USD$10,000,000 within [***] days after receipt of an Invoice for the same, which will be issued on or after [***].

7.1.2 Annual Access Fee. [***] Novartis will make annual payments of USD$5,000,000 each within [***] days of receipt of an Invoice for the same, with the [***] payment to be paid by Novartis to Intellia no later than [***] (provided Novartis has received an Invoice therefor at least [***] days prior to such date) and the subsequent annual payments to be invoiced on the [***]. In no events will payments pursuant to this Section 7.1.2 exceed USD$20,000,000 in the aggregate.

7.1.3 Additional Selected HSC Targets Fee. For each Additional Selected HSC Target, Novartis will make a payment of [***], which will be paid within [***] days of receipt of an Invoice for the same, to be issued upon receipt of Novartis' notice to Intellia [***].

7.1.4 Equity Investment. Novartis will have the right to make the investments set forth in the Equity Agreements.

Section 7.2 Research Funding Payments.

7.2.1 HSC Program; CART Program.

(a) [***], Novartis will make to Intellia research funding reimbursements payments ("Research Funding Payments") in the amount of [***] in the aggregate per [***] period [***] and, unless agreed upon by the Parties in writing, not to exceed USD$20,000,000 in the aggregate [***]. Specifically, Novartis will make quarterly Research Funding Payments in the amount of [***] within [***] days of Novartis' receipt of an Invoice for the same issued by Intellia upon the [***] day of the applicable such [***] period.

[***]

7.2.2 In Vivo Program. If pursuant to Section 2.4.3, if the Parties agree that Intellia will be responsible for activities under an In Vivo Research Plan, then for all such activities performed by or behalf of Intellia, Novartis will reimburse Intellia at the FTE Rate consistent with the In Vivo Budget included in any applicable In Vivo Research Plans ("In Vivo Research Funding Payments"). Novartis will make [***] In Vivo Research Funding Payments [***].

7.2.3 General. [***]

Section 7.3 Development and Approval Milestones.

7.3.1 Generally. The fees set forth in the table below (collectively, "Milestone Payments") will accrue to Intellia upon the achievement by Novartis, its Affiliates, or any of their sublicensees of the corresponding events (the "Milestones") with respect to each Product per Target that achieves such Milestone; *provided, however*, that:

(a) HSC Products. On a Novartis Selected HSC Target-by- Novartis Selected HSC Target basis and an Additional Selected HSC Target-by-Additional Selected HSC Target basis, as applicable, Milestones Payments shall be as follows:

[***]

(b) CART Products. On a CART Therapeutic Target-by-CART Therapeutic Target basis, Milestones Payments shall be as follows:

[***]

(c) In Vivo Products. On a Novartis Selected In Vivo Target -by- Novartis Selected In Vivo Target basis, Milestones Payments shall be as follows:

[***]

(e) [***]

(f) Example of Milestones Payment. An example of the Milestone payments and the provisions of clauses (a) through (e), above, is set forth as *Exhibit D.*

[Table Follows]

#	Milestone	Milestone Payment
1.	Filing of the IND for the Product	[***]
2.	FPFD of Phase IIa Trial of the Product	[***]
3.	FPFD of Phase IIb Trial of the Product	[***]
4.	FPFD of Phase III Trial of the Product	[***]
5.	First Regulatory Approval of the Product worldwide: (††) [***] [***]	[***]
6.	Second Regulatory approval of the Product worldwide (††) [***] [***]	[***]
7.	Regulatory Approval in the US of the Product for an Additional Labeled Indication: (†††) [***] [***]	[***]
8.	Regulatory Approval in the EU of the Product for an Additional Labeled Indication (†††) [***] [***]	[***]
[***]		

(††) For the avoidance of doubt, the total amount payable under Milestones 5 and 6 shall not exceed [***] for each Product per Target.

(†††) For the avoidance of doubt, the total amount payable under Milestones 7 and 8 shall not exceed [***] for each Product per Target.

7.3.2 Milestone Payments. Novartis will provide Intellia with written notice within [***] days after Novartis determines or is informed that the relevant Milestone has been achieved. Novartis will pay the corresponding Milestone Payment within [***] days after receipt of an Invoice for the same.

7.3.3 Skipped Milestones. [***]

Section 7.4 Royalties on Products.

7.4.1 Royalties Generally. Novartis or its Affiliate will make royalty payments to Intellia [***] on a Product by Product basis at the following marginal royalty rates ("Royalties"):

[***]	Marginal Royalty Rate
[***]	[***]
[***]	[***]
[***]	[***]

7.4.2 Royalty Duration. Royalties will be payable on a Product by Product and country by country basis during the Royalty Term. Thereafter, Novartis', its Affiliates' and their sublicensees' rights to such Product in such country will be Royalty-free.

7.4.3 Payment of Royalties. Within [***] days after the end of each Calendar Quarter during the Royalty Term, Novartis will provide Intellia with a report stating the Net Sales of Products sold by Novartis or its Affiliates [***] during that Calendar Quarter, together with the calculation of the Royalties due to Intellia. Royalty payments will be made by Novartis or its Affiliate to a bank account indicated by Intellia within [***] days after the date of receipt by Novartis of an Invoice for the indicated amount.

7.4.4 Loss of Market Exclusivity. If a Loss of Market Exclusivity for any Product occurs in any country, then for the remaining period of the Royalty Term following such Loss of Market Exclusivity, the Net Sales for such country [***] for the purpose of the calculation of Royalties due under Section 7.4.1 will be reduced by [***].

7.4.5 Know How Only Royalties. If, during the Royalty Term, the relevant Product is not covered by a Valid Claim in the applicable country, then for so long as there is no Valid Claim in such country during the Royalty Term, the Net Sales for such country [***] for the purpose of the calculation of Royalties due under Section 7.4.1 will be reduced by [***].

7.4.6 Minimum Royalties. Notwithstanding any multiple reductions that may be taken pursuant to this Article VII [***], in no event will the Royalty rates under this Agreement fall below, as applicable, the Royalty Rates of the Revised Royalty Floor set forth in Section 7.6.2(b), or [***] of the Royalty rates set forth in Section 7.4.1 in any Calendar Quarter pursuant to this Section 7.4.6. [***].

7.4.7 Sample Computations. Sample Royalty computations for Section 7.4 are set forth on *Exhibit E*.

7.4.8 Payments on Novartis HSC Background IP License.

(a) [***].

(b) [***].

(c) [***].

(d) [***].

(e) [***].

(f) [***].

Section 7.5 Sales Milestones on Products.

Novartis will make each of the following [***] payments (each, a "Sales Milestone Payment") when [***] (the "Sales Milestones"):

[***]	Sales Milestone Payment
[***]	[***]
[***]	[***]
[***]	[***]

Novartis will provide written notice to Intellia within [***] days of its determination that a Sales Milestone as contemplated by this Section 7.5 has been achieved, and will make the corresponding Sales Milestone Payment within [***] days after the date of receipt by Novartis of an Invoice for the indicated amount.

Section 7.6 Third Party Royalties.

7.6.1 Caribou. Novartis will reimburse Intellia for [***]; *provided, however*, that Novartis will not be responsible for [***]. All such reimbursement payments will be made within [***] days of receipt of an Invoice for the same [***].

7.6.2 Third Party Obligations.

(a) Except as contemplated by Section 7.6.1, Intellia will remain responsible for the payment of royalty, milestone and other payment obligations, if any, due to Third Parties under any other (*i.e.*, not identified in Section 7.6.1) Intellia Intellectual Property that has been licensed to Intellia as of the Effective Date. After the Effective Date, if Intellia in-licenses Intellectual Property Rights of a Third Party that cover the Intellia Platform or improvements thereto ("Intellia New In-Licensed Intellectual Property"), then Intellia shall make such Intellia New In-Licensed Intellectual Property available to be included in the licenses to Novartis under this Agreement by notifying Novartis of the Intellia New In-Licensed Intellectual Property and related agreement, including any anticipated financial obligations that may arise if Novartis were to elect to take a sublicense to such Intellectual Property Rights. Within [***] days of receiving notice of any Intellia New In-Licensed Intellectual Property, Novartis may elect to add such Intellectual Property Rights to the Intellia Intellectual Property ("Included Intellia New In-Licensed Intellectual Property") [***] If Novartis fails or declines to make the election specified in this section within [***] days of receiving the notice from Intellia, such declined Intellectual Property Rights shall not be included as Intellia Intellectual Property [***] ("Excluded Intellia New In-Licensed Intellectual Property") [***]. Further, Excluded Intellia New In-Licensed Intellectual Property shall include any Intellectual Property licensed or acquired by Intellia from a Third Party after the Effective Date that is not Intellia New In-Licensed Intellectual Property.

(b) If Novartis determines that licenses or other rights to Intellectual Property Rights of a Third Party are required to Practice the Intellia Intellectual Property (other than those already in-licensed by Intellia and available to Novartis pursuant to the terms of Section 7.6.2(a) above), Novartis will have the right to negotiate and acquire such rights through a license and will be responsible for all amounts to be paid to such Third Party; *provided, however*, that [***].

(c) After the Effective Date, if Novartis in-licenses Intellectual Property Rights of a Third Party that cover the Intellia Platform or improvements thereto ("Novartis New In-Licensed Platform Intellectual Property"), then Novartis shall make such Novartis New In-Licensed Platform Intellectual Property available to be included in the license granted to Intellia under Section 5.3.6 by notifying Intellia of the Novartis New In-Licensed Platform Intellectual Property and related agreement, including any anticipated financial obligations that may arise if Intellia were to elect to take a sublicense to such Intellectual Property. Within [***] days of receiving notice of any Novartis New In-Licensed Platform Intellectual Property, Intellia may elect to add such Intellectual Property Rights to the Novartis Other Background Intellectual Property ("Included Novartis New In-Licensed Platform Intellectual Property") [***]. If Intellia fails or declines to make the election specified in this section within [***] days of receiving the notice from Novartis, such declined Intellectual Property Rights shall not be included as Novartis Other Background Intellectual Property [***] ("Excluded Novartis New In-Licensed Platform Intellectual Property") [***].

Section 7.7 [***]

Section 7.8 Recordkeeping and Reports.

7.8.1 Recordkeeping Generally. Each Party will keep complete, true and accurate books and records in accordance with its Accounting Standards, as applicable, in relation to this Agreement, including, in the case of Novartis, with respect to Net Sales and Royalties, and in the case of Intellia, FTEs rendered pursuant to this Agreement, and Intellia Net Sales. Each Party will keep such books and records for at least [***] following the Calendar Year to which they pertain. Each Party will promptly notify the other in advance of any changes to the Accounting Standards by which its records are maintained, it being understood that each Party may only use internationally recognized accounting principles (*e.g.*, IFRS, US GAAP, *etc.*).

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

7.8.2 Audit Right. Each Party may, upon written request, cause an internationally-recognized independent accounting firm (the "Auditor"), which is reasonably acceptable to the other Party, to inspect the relevant records of the other Party and its Affiliates to verify the amounts payable by the Parties and the related reports, statements and books of accounts, as applicable, referenced in Section 7.8.1 and 7.6.1. Before beginning its audit, the Auditor will execute an undertaking acceptable to the audited Party by which the Auditor agrees to keep confidential all information reviewed during the audit. The Auditor will have the right to disclose to the Party requesting the audit only its conclusions regarding any payments owed under this Agreement.

7.8.3 Inspection of Books and Records. The audited Party and its Affiliates will make their records available for inspection by the Auditor during regular business hours at such place or places where such records are customarily kept, upon receipt of reasonable advance notice from the Party requesting the audit. The records will be reviewed solely to verify the accuracy of the Parties' financial obligations corresponding to this Agreement. Such inspection right will not be exercised more than once in any Calendar Year and not more than once with respect to records covering any specific period of time. In addition, each Party will only be entitled to audit the books and records of the other Party from the [***] prior to the Calendar Year in which the audit request is made. The Party requesting the audit will hold in strict confidence all information received and all information learned in the course of any audit or inspection, except to the extent necessary to enforce its rights under this Agreement or to the extent required to comply with any Applicable Laws.

7.8.4 Report. The Auditor will provide its audit report and basis for any determination both Parties before it is considered final. If the final result of the inspection reveals an undisputed underpayment or overpayment, then the underpaid or overpaid amount will be settled promptly. If the audited Party disagrees with the findings

of the report, it will provide the other Party and the Auditor with a reasonably detailed statement of the grounds upon which it disputes such findings in the audit report and the Auditor will undertake to complete such further determination within 30 days after the dispute notice is provided, which determination will be limited to the disputed matters. The Parties will use reasonable efforts, through the participation of finance representatives of both companies, to resolve any dispute arising in relation to the audit by good faith discussion.

7.8.5 Payment for Audit. The Party requesting the audit will pay for such inspections, as well as its expenses associated with enforcing its rights with respect to any payments hereunder; *provided* that **(a)** if an underpayment of royalties of more than [***]% of the total payments due by Novartis hereunder for the applicable Calendar Year is discovered and is due to an error or omission of Novartis, the fees and expenses charged by the Auditor will be paid by Novartis; and **(b)** if an overpayment by Novartis of more than [***]% of the total payments due hereunder for the applicable Calendar Year is discovered and is due to an error or omission of Intellia, the fees and expenses charged by the Auditor will be paid by Intellia.

7.8.6 Commercially Reasonable Efforts Report. Starting on [***] and on an [***] basis thereafter during the Agreement Term, Novartis will provide Intellia a report of each Novartis Selected HSC Product, Additional Selected HSC Product, Advanced CART Product, and In Vivo Product that is then the subject of ongoing research, Development, and Commercialization activities [***]. Each such report shall detail the current status of Development of each such Product, and the anticipated date of the next milestone to be achieved by such Product.

Section 7.9 Payments; Interest.

All payments will be made in US Dollars by wire transfer in immediately available funds to a bank and account designated in writing by Intellia for payments to be made by Novartis hereunder, or designated in writing by Novartis for payments, if any, to be made by Intellia pursuant to Section 7.4.8 and 7.6.2(c). Any payments which fall due

on a date that is not a Business Day will be due on the next date that is a Business Day. Any payments or portions thereof due hereunder which are not paid when due shall bear simple interest equal to the lesser of **(a)** one-month Euribor plus 200 basis points per annum, or **(b)** the maximum rate permitted by Applicable Law, calculated on the number of days such payment is delinquent.

Section 7.10 Projections.

Intellia and Novartis acknowledge that nothing in this Agreement will be construed as representing an estimate or projection of anticipated sales of any Product, and that the Milestones and Net Sales levels set forth above or elsewhere in this Agreement or that have otherwise been discussed by the Parties are merely intended to define the payments and royalty obligations to Intellia if such Milestones or Net Sales levels are achieved. *NEITHER Intellia NOR Novartis MAKES ANY REPRESENTATION OR WARRANTY, EITHER EXPRESS OR IMPLIED, THAT IT WILL BE ABLE TO SUCCESSFULLY RESEARCH, DEVELOP OR COMMERCIALIZE ANY PRODUCT OR SERVICE OR, IF COMMERCIALIZED, THAT ANY PARTICULAR NET SALES LEVEL OF SUCH PRODUCT OR SERVICE WILL BE ACHIEVED.*

ARTICLE VIII
CONFIDENTIALITY

Section 8.1 Undertaking.

Subject to the other provisions of this Article VIII, all Confidential Information disclosed by a Party or its Affiliates in connection with the Collaboration or under this Agreement will be maintained in confidence and otherwise safeguarded by the recipient Party. The recipient Party may only use such Confidential Information for the purposes of this Agreement and pursuant to the rights granted to the recipient Party under this Agreement. Subject to the other provisions of this Article VIII, each Party will hold as confidential such Confidential Information of the other Party or its Affiliates in the same manner and with the same protection as such recipient Party maintains its own confidential information (but in no event will it exercise less than reasonable care with

respect to such Confidential Information). Subject to the other provisions of this Article VIII, a recipient Party may only disclose Confidential Information of the other Party to employees, agents, contractors, consultants, and advisers of the recipient Party and its Affiliates, licensees and sublicensees and to Third Parties to the extent reasonably necessary for the purposes of, and for those matters undertaken pursuant to, this Agreement; *provided* that such Persons are bound to maintain the confidentiality of the Confidential Information in a manner consistent with the confidentiality provisions of this Agreement. The Parties acknowledge that Confidential Information has been exchanged between the Parties prior to the Effective Date pursuant to the Confidentiality Agreement. The Parties agree that as of the Effective Date the Confidentiality Agreement is hereby terminated without further force and effect and is superseded by this Article VIII, and all obligations between the Parties relating to all such Confidential Information exchanged before the Effective Date will be governed by this Article VIII.

Section 8.2 Exceptions to Confidentiality.

The obligations under this Article VIII will not apply to any information to the extent the recipient Party can demonstrate by competent evidence that such information:

(a) is (at the time of disclosure) or becomes (after the time of disclosure) known to the public or part of the public domain through no breach of this Agreement by the recipient Party or its Affiliates;

(b) was known to, or was otherwise in the possession of, the recipient Party or its Affiliates prior to the time of disclosure by the disclosing Party or any of its Affiliates;

(c) is disclosed to the recipient Party or an Affiliate on a non-confidential basis by a Third Party who is entitled to disclose it without breaching any confidentiality obligation to the disclosing Party or any of its Affiliates; or

(d) is independently developed by or on behalf of the recipient Party or its Affiliates, as evidenced by its written records, without reference to the Confidential Information disclosed by the disclosing Party or its Affiliates under this Agreement.

Specific aspects or details of Confidential Information will not be deemed to be within the public domain or in the possession of the recipient Party merely because the Confidential Information is embraced by more general information in the public domain or in the possession of the recipient Party. Further, any combination of Confidential Information will not be considered in the public domain or in the possession of the recipient Party merely because individual elements of such Confidential Information are in the public domain or in the possession of the recipient Party unless the combination and its principles are in the public domain or in the possession of the recipient Party.

Section 8.3 Authorized Disclosures.

In addition to disclosures allowed under Sections 8.1 and 8.2, each Party may disclose Confidential Information belonging to the other Party or its Affiliates to the extent such disclosure is necessary in the following instances: **(a)** filing or prosecuting Patent Rights; **(b)** in connection with seeking for or obtaining Regulatory Approval; **(c)** prosecuting or defending litigation as permitted by this Agreement; **(d)** complying with applicable court orders or governmental regulations; **(e)** to any potential or actual investor, lender, financing partner, acquirer, or merger partner, or **(f)** to the extent otherwise necessary or appropriate in connection with exercising the license and other rights granted to it hereunder. If the recipient Party is required to disclose Confidential Information of the disclosing Party by Applicable Law or in connection with bona fide legal process, such disclosure will not be a breach of this Agreement; *provided* that the recipient Party **(i)** informs the disclosing Party as soon as reasonably practicable of the required disclosure; **(ii)** limits the disclosure to the required purpose; and **(iii)** at the disclosing Party's request and expense, assists in an attempt to object to or limit the required disclosure.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

Section 8.4 Publicity.

8.4.1 The Parties will agree on a mutually acceptable press release to be issued within [***] following the execution of this Agreement.

8.4.2 Subject to Section 8.4.1, no public announcement concerning the existence or the terms of this Agreement or concerning the transactions described herein will be made, either directly or indirectly, by a Party or its Affiliates without first obtaining the written consent of the other Party; *provided* that either Party may disclose such information as may be required by Applicable Law, including those incident to the listing of securities on a stock exchange, without the consent of the other Party; *provided further* that the Party disclosing such information will **(a)** only disclose such information as is required by such Applicable Law; **(b)** provide reasonable advance notice to the other Party of the intended disclosure and the content of that disclosure; and **(c)** seek a confidential treatment order (or a protective or limiting order, as applicable) for all provisions of this Agreement that can be reasonably deemed to be trade secrets and will permit the non-disclosing party reasonable advance notice and the opportunity to comment on any such confidential treatment request or protective order request.

Section 8.5 Material Transfer.

[***]

ARTICLE IX
REPRESENTATIONS, WARRANTIES, AND COVENANTS

Section 9.1 Representations and Warranties of Both of the Parties.

Each Party represents and warrants to the other as of the Effective Date that: **(a)** it is a corporation duly organized, validly existing, and in good standing under the Applicable Laws of its jurisdiction of incorporation; **(b)** it has full corporate power and authority to execute, deliver, and perform this Agreement, and has taken all corporate action required by law and its organizational documents to authorize the execution and delivery of this Agreement and the consummation of the transactions contemplated by

this Agreement; **(c)** this Agreement constitutes a valid and binding agreement enforceable against it in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, receivership, moratorium, fraudulent transfer, or other Applicable Laws affecting the rights and remedies of creditors generally and by general principles of equity; **(d)** all consents, approvals and authorizations from all governmental authorities or other Third Parties required to be obtained by such Party in connection with this Agreement have been obtained; and **(e)** the execution and delivery of this Agreement and all other instruments and documents required to be executed pursuant to this Agreement, and the consummation of the transactions contemplated hereby do not and will not **(i)** conflict with or result in a breach of any provision of its organizational documents; **(ii)** result in a breach of any agreement to which it is a party; or **(iii)** violate any Applicable Law.

Section 9.2 Representations and Warranties of Intellia.

Intellia represents and warrants to Novartis as of the Effective Date as follows: **(a)** true and correct copies of [***] respectively, as they exist as of the Effective Date have been provided to Novartis (collectively, the "Key License Agreements"); **(b)** [***], are in full force and effect as of the Effective Date, and Intellia has no knowledge of any facts or circumstances that would constitute a breach of any of the Key License Agreements on the part of any of the parties to those agreements; **(c)** Intellia has not granted any Third Party rights that would conflict with Novartis' rights granted hereunder, and there are no agreements or arrangements to which Intellia or any of its Affiliates is a party relating to any Intellectual Property Rights, however arising, Controlled by Intellia that would limit the rights granted to Novartis under this Agreement; **(d)** to Intellia's knowledge, the Patent Applications included in the Intellia Intellectual Property on the Effective Date have been filed and prosecuted in accordance with all Applicable Laws; and **(e)** except as set forth on Schedule 9.2(e), all of Intellia's employees, officers, and consultants have executed agreements or have existing obligations under Applicable Law requiring assignment to Intellia of all inventions made

during the course of and as the result of the Collaboration and obligating such individuals to maintain as confidential Intellia's Confidential Information as well as confidential information of other parties (including Novartis' and Novartis' Affiliates) that such individual may receive in the conduct of the Collaboration.

Section 9.3 Representations and Warranties of Novartis.

Novartis represents and warrants to Intellia as of the Effective Date as follows: **(a)** all of its employees, officers, and consultants have executed agreements or have existing obligations under Applicable Law requiring assignment to Novartis of all inventions made during the course of and as the result of the Collaboration and obligating the individual to maintain as confidential Novartis' Confidential Information as well as confidential information of other parties (including Intellia's) that such individual may receive in the conduct of the Collaboration; **(b)** it has not granted any Third Party rights that would conflict with Intellia's rights granted hereunder, and there are no agreements or arrangements to which Novartis or any of its Affiliates is a party relating to any Intellectual Property Rights, however arising, Controlled by Novartis that would limit the rights granted to Intellia under this Agreement; **(c)** to its knowledge, the Patent Applications included in the Novartis Intellectual Property on the Effective Date have been filed and prosecuted in accordance with all Applicable Laws; and **(d)** [***].

Section 9.4 Covenants.

9.4.1 Compliance with Applicable Law. Each of the Parties will conduct the Collaboration in compliance with all Applicable Laws, including, laws and regulations relating to health, safety and the environment, fair labor practices, anti-bribery, and unlawful discrimination.

9.4.2 Personal Information and Privacy. In the course of the performance of the Collaboration, each of the Parties may acquire the Personal Information (as defined herein) of individuals from various sources and countries. Each of the Parties will, and will cause its Affiliates and agents to, process all Personal Information it acquires under

or in connection with this Agreement in compliance with all applicable data protection laws, including the data protection laws of the European Union, European Economic Area, Switzerland, the United States and various localities therein. Each of the Parties acknowledges that the requirements under such data protection laws may exceed the requirements applicable to Confidential Information set forth in Article VIII. Each of the Parties may, on reasonable prior notice, audit the other Party's compliance with such data protection laws. For this purpose, "Personal Information" means any information that can be used to identify, describe, locate or contact an individual, including **(a)** name or initials; **(b)** home or other physical address; **(c)** telephone number; **(d)** email address or online identifier associated with the individual; **(e)** social security number or other similar government identifier; **(f)** employment, financial or health information; **(g)** information specific to an individual's physical, physiological, mental, economic, racial, political, ethnic, ideological, cultural or social identity; **(h)** photographs; **(i)** dates relating to the individual (except years alone); **(j)** financial account numbers; **(k)** genetic material or information; **(l)** business contact information; and **(m)** any other information relating to an individual that, alone or in combination, with any of the above, can be used to identify an individual. Novartis will anonymize all information related to any Novartis Materials consisting of human biological samples.

9.4.3 No Conflicting Agreements. Each of the Parties covenants that it will not enter into any agreement, arrangement, or undertaking after the Effective Date that would prohibit or restrict its ability to perform its obligations as set forth in this Agreement or materially alter the other Party's rights under this Agreement.

Section 9.5 Disclaimers.

EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, THE PARTIES MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO ANY INTELLIA INTELLECTUAL PROPERTY, NOVARTIS BACKGROUND INTELLECTUAL PROPERTY, COLLABORATION INTELLECTUAL PROPERTY,

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

TARGETS, PRODUCTS OR SERVICES, INCLUDING WARRANTIES OF VALIDITY OR ENFORCEABILITY OF ANY PATENT RIGHTS, TITLE, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR USE OR PURPOSE, PERFORMANCE, AND NON-INFRINGEMENT OF ANY THIRD PARTY PATENTS OR OTHER INTELLECTUAL PROPERTY RIGHTS.

ARTICLE X
INDEMNIFICATION

Section 10.1 Indemnification by Intellia.

Intellia will indemnify, defend, and hold Novartis, its Affiliates, and their respective employees, shareholders, officers, and directors, and the successors, heirs and assigns of each of them (the "Novartis Indemnitees"), harmless against any loss, damages, liability or expense, as well as reasonable attorneys' fees and litigation expenses (collectively, a "Loss") incurred by any Novartis Indemnitee in connection with any action, suit, proceeding, claim or demand by a Third Party, including personal injury and product liability matters (a "Third Party Claim"), to the extent that **(a)** such Loss is based on or arises out of the breach by Intellia of any of its covenants, representations, or warranties set forth in this Agreement (but excluding any such Loss that is caused by the negligent, reckless or intentional acts or omissions of Novartis or any other Novartis Indemnitee); or **(b)** such Loss relates to Intellia's, its Affiliates, or its or their licensees' or contractors' actions in connection with the research, Development, manufacture, use or Commercialization of an Intellia Selected Product.

Section 10.2 Indemnification by Novartis.

Novartis will indemnify, defend, and hold Intellia, its Affiliates, and their respective employees, shareholders, officers, and directors and the successors, heirs, and assigns of each of them (the "Intellia Indemnitees"), harmless against any Loss incurred by any Intellia Indemnitee in connection with any Third Party Claim to the extent **(a)** such Loss is based on or arises out of the breach by Novartis of any of its covenants, representations, or warranties set forth in this Agreement (but excluding any such Loss

that is caused by the negligent, reckless or intentional acts or omissions of Intellia or any other Intellia Indemnitee); or **(b)** such Loss relates to Novartis', its Affiliates', or its or their licensees' or contractors' actions in connection with the research, Development, manufacture, use or Commercialization of a Product.

Section 10.3 Claims Procedures.

Each Person entitled to be indemnified by the other Party (an "Indemnified Party") pursuant to Section 10.1 or Section 10.2 will give notice to the other Party (an "Indemnifying Party") promptly after such Indemnified Party has actual knowledge of any threatened or asserted claim as to which indemnity may be sought, and will permit the Indemnifying Party to assume the sole control of the defense of any such claim or any litigation resulting therefrom; *provided, however*:

(a) that counsel for the Indemnifying Party who will conduct the defense of such claim or any litigation resulting therefrom will be approved by the Indemnified Party (whose approval will not unreasonably be withheld) and the Indemnified Party may participate in such defense at the Indemnified Party's expense, unless the Indemnified Party reasonably concludes that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the defense of such action, in each of which cases the Indemnifying Party will pay the reasonable fees and expenses of one law firm serving as counsel for the Indemnified Party, which law firm will be subject to approval, not to be unreasonably withheld, by the Indemnifying Party;

(b) the failure of any Indemnified Party to give notice as provided herein will not relieve the Indemnifying Party of its obligations under this Agreement to the extent that the failure to give notice did not result in harm to the Indemnifying Party or materially compromise the defense of such claim;

(c) no Indemnifying Party, in the defense of any such claim or litigation, will consent to entry of any judgment or enter into any settlement,

except with the approval of each Indemnified Party (which approval will not be unreasonably withheld), except a settlement which imposes only a monetary obligation on the Indemnifying Party and which includes as an unconditional term thereof the giving of a release from all liability in respect to such claim or litigation by the claimant or plaintiff to the Indemnified Party; and

(d) each Indemnified Party will furnish such information or reasonable assistance regarding itself or the claim in question as an Indemnifying Party may reasonably request in writing and will be reasonably required in connection with the defense of such claim and litigation resulting therefrom.

Section 10.4 Mitigation of Loss.

Each Indemnified Party will take and will procure that the other Novartis Indemnitees, where Novartis is the Indemnified Party, and the other Intellia Indemnitees, where Intellia is the Indemnified Party, take all such reasonable steps and action as are necessary or as the Indemnifying Party may reasonably require in order to mitigate any Loss (or potential Loss) under this Article X. Nothing in this Agreement will or will be deemed to relieve any Party of any common law or other duty to mitigate any losses incurred by it.

Section 10.5 Special, Indirect and Other Losses.

Neither Party nor any of its Affiliates will be liable in contract, tort, negligence, breach of statutory duty, or otherwise for any special, indirect, incidental, punitive, or consequential damages or for any economic loss or loss of profits suffered by the other Party, except to the extent such damages are required to be paid to a Third Party as a part of a Loss for which that Party is to provide indemnification under this Article X or for such Party's fraud, gross negligence or intentional misconduct.

ARTICLE XI
TERM AND TERMINATION

Section 11.1 Term.

This Agreement commenced will commence on the Effective Date and, unless terminated pursuant to Section 11.2, continue in full force and effect until the fulfillment of the later of **(a)** the expiration of Novartis' payment obligations hereunder, or **(b)** the date of expiration of the last-to-expire Patent Right that is licensed to either Party as set forth in Article V (the "Agreement Term"), subject to the survival of specified provisions of this Agreement pursuant to Section 11.3 below.

Section 11.2 Termination for Cause.

11.2.1 Breach of the Agreement. If either Party is in material breach of this Agreement, the non-breaching Party may send a written notice to the breaching Party that describes such breach in sufficient detail to permit the breaching party to cure such breach (if capable of cure). The breaching Party will have a period of [***] days to cure such breach (if capable of cure). If the breach has been timely cured, the notice of termination will be deemed null and void. If the breach has not been timely cured (or if the breach is incapable of cure), the non-breaching party will have the right to terminate the Agreement by providing written notice, and the Agreement and, if applicable, the Research Term, will terminate upon receipt of such notice, subject to a stay of termination if arbitration is pending, as set forth in Section 12.2.3.

(a) If Novartis terminates this Agreement pursuant to this Section 11.2.1, then:

(i) the following provisions will terminate as of as of the effective date of such notice: Article II (except as provided below), Article III (except as provided below), Article IV (except as provided below), Article V (except as provided below), and Article VII (except as provided below); and

(ii) the following provisions will survive such termination and continue in full force and effect thereafter: Section 2.4.2(a), Section 2.4.4, Section 2.5, Sections 3.6.2(c), Section 3.7.2(b), Section 3.7.2(c), Section 3.8.3, Section 4.1.2(a), Section 4.1.2(c), Section 4.1.2(d), Section 4.2.2, Section 4.3, Section 4.4, Section 5.2, Section 5.3.1(a), Section 5.3.2, Section 5.3.3, Section 5.3.4, Section 5.3.5, Section 5.4, Section 5.5, Section 5.6, Article VI, Section 7.3, Section 7.4 (excluding Section 7.4.8), Section 7.5, Section 7.6, Section 7.7, Section 7.8, Section 7.9 and those provisions set forth in Section 11.3.

(b) If Intellia terminates this Agreement pursuant to this Section 11.2.1, then:

(i) the following provisions will terminate as of as of the effective date of such notice: Article II, Article III (except as provided below), Article IV (except as provided below), Article V (except as provided below), Article VI, Section 7.1.2, and Section 7.2; and

(ii) the following provisions will survive such termination and continue in full force and effect thereafter: Section 3.6.2(b), Section 3.8.3, Section 3.9, Section 4.1.2(b), Section 4.1.2(e), Section 4.4, Section 5.2, Section 5.3.1(b), Section 5.3.4, Section 5.3.6, Section 5.5, Article VII (other than Sections 7.1.2 and 7.2) and those provisions set forth in Section 11.3.

(c) The Parties agree that termination pursuant to this Section 11.2.1 is a remedy to be invoked only if the breach cannot be adequately remedied through a combination of specific performance and the payment of money damages. In that regard, if the money damages payable under this Agreement by reason of a breach were materially limited by reason of Section 10.5 (for reasons other than the exclusion for punitive damages), it will be assumed that the payment of money damages was not an adequate remedy for the breach unless the breaching Party elects to waive the protections of Section 12.3 (other than with respect to punitive damages) and pay the resulting amounts.

[***]

11.2.2 Termination of Business; Insolvency. Either Party may terminate this Agreement immediately by written notice to the other Party if the other Party undergoes an Insolvency Event.

(a) If Novartis terminates this Agreement pursuant to this Section 11.2.2, then:

(i) the following provisions will terminate as of as of the effective date of such notice: Article II (except as provided below), Article III (except as provided below), Article IV (except as provided below), Article V (except as provided below), and Article VII (except as provided below); and

(ii) the following provisions will survive such termination and continue in full force and effect thereafter: Section 2.4.2(a), Section 2.4.4, Section 2.5, Sections 3.6.2(c), Section 3.7.2(b), Section 3.7.2(c), Section 3.8.3, Section 4.1.2(a), Section 4.1.2(c), Section 4.1.2(d), Section 4.2.2, Section 4.3, Section 4.4, Section 5.2, Section 5.3.1(a), Section 5.3.2, Section 5.3.3, Section 5.3.4, Section 5.3.5, Section 5.4, Section 5.5, Section 5.6, Article VI, Section 7.3, Section 7.4 (excluding Section 7.4.8), Section 7.5, Section 7.6, Section 7.7, Section 7.8, Section 7.9 and those provisions set forth in Section 11.3.

(b) If Intellia terminates this Agreement pursuant to this Section 11.2.2, then:

(i) the following provisions will terminate as of as of the effective date of such notice: Article II, Article III (except as provided below), Article IV (except as provided below), Article V (except as provided below), Article VI, Section 7.1.2, and Section 7.2; and

(ii) the following provisions will survive such termination and continue in full force and effect thereafter: Section 3.6.2(b), Section 3.8.3, Section 3.9, Section 4.1.2(b), Section 4.1.2(e), Section 4.4, Section 5.2, Section 5.3.1(b), Section 5.3.4, Section 5.3.6, Section 5.5, Article VII (other than Sections 7.1.2 and 7.2), and those provisions set forth in Section 11.3.

11.2.3 Termination for IP Challenge. Intellia will have the right to terminate this Agreement in its entirety upon written notice to Novartis in the event that Novartis or any of its Affiliates directly or indirectly challenges in a legal or administrative proceeding the patentability, enforceability or validity of any Patent Rights within the Intellia Intellectual Property or the Collaboration Platform Intellectual Property (except as a defense against a claim, action or proceeding asserted by Intellia against Novartis or its Affiliates or sublicensees) (a "Novartis Patent Challenge"); *provided* that Intellia will not have the right to terminate this Agreement under this Section 11.2.3 for any such Novartis Patent Challenge by any sublicensee if such Novartis Patent Challenge is dismissed within [***] days of Intellia's notice to Novartis under this Section 11.2.3 and not thereafter continued. The effect of any such termination by Intellia (and the provisions that survive and are terminated by such a termination) will be the same as that set forth in Section 11.2.1(b) above. [***].

11.2.4 Termination for Material Failure; Termination without Cause.

(a) Material Failure.

(i) Subject to Section 11.2.4(a)(ii), Novartis will have the right to terminate this Agreement in its entirety if any of the following events occurs:

(A) In a patent application claiming priority to U.S. Patent Application Nos. 61/652,086, 61/716,256, 61/757,640, and/or 61/765,576, neither the Regents of the University of California at Berkeley ("Berkeley") nor Emmanuelle Charpentier ("Charpentier") files claims with the United States Patent & Trademark Office ("USPTO") by June 30, 2015 sufficient under 37 C.F.R. 41.203(a) to allow the USPTO to initiate an interference with one or more of the claims of U.S. Patent No. 8,697,359 (the "'359 Patent") (the "Interference Trigger");

(B) Neither the USPTO allows, nor the European Patent Office (nor any of the patent authorities or offices in France, Germany, Italy, Spain, or the United Kingdom) grants patent claims from a patent application claiming priority to U.S. Patent Application Nos. 61/652,086, 61/716,256, 61/757,640, and/or 61/765,576 (or their European counterpart) by December 31, 2017 (the "Grant Trigger"); or

(C) The owners, or any of the licensees, of the '359 Patent brings a suit against Novartis by or before December 31, 2017 claiming that activities specifically encompassed by the Research Plans infringe an independent claim of the '359 Patent (the "Litigation Trigger"); *provided, however*, that, Novartis will not have the right to exercise the Litigation Trigger if **(i)** the owners or any of the licensees of the '359 Patent, brings an infringement suit against Novartis under the '359 Patent solely for activities Novartis is performing independently or with other Third Parties outside of the Collaboration (*e.g.*, developing CRISPR-related research tools) or **(ii)** the owners or any of the licensees of the '359 Patent bring an infringement suit against Novartis under

the '359 Patent as a counterclaim or in response to a judicial or patent agency proceeding or suit initiated by Intellia and/or Novartis against them.

(ii) If any of the events described in Section 11.2.4(a)(i) has occurred and Novartis desires to terminate this Agreement, Novartis will comply with the following before such termination will be deemed effective:

(A) Novartis will send written notice to Intellia of its intent to terminate this Agreement identifying the relevant trigger within [***] days following the applicable date or event specified in Section 11.2.4(a)(i). [***].

(B) (1) Following Intellia's receipt of such termination notice [***], Novartis and Intellia will have a period of [***] days to discuss in good faith whether to continue with the Collaboration pursuant to the terms of this Agreement. If the Parties agree to continue the Collaboration, Novartis' termination notice will be deemed withdrawn and this Agreement will continue in full and effect on such terms. [***]. If the Parties decide not to continue the Collaboration, Novartis' termination notice will be deemed effective [***] days from the date of the notice.

(2) Following Intellia's receipt of such termination notice [***], Intellia will have a period of [***] days to seek to resolve [***], which period may be extended by mutual agreement of the Parties. If Intellia is successful, Novartis' termination notice will be deemed withdrawn and this Agreement will continue in full force and effect. If Intellia is not successful [***], Novartis' termination notice will be deemed effective [***] days from the date of the notice.

(iii) If Novartis terminates this Agreement as permitted pursuant to this Section 11.2.4(a), **(A)** all provisions [***] will terminate except for the following, which will survive such termination and continue in full force and effect thereafter: Section 3.6.2(b), Section 3.8.3, Section 3.9, Section 4.1.2(b), Section 4.1.2(e**)** Section 5.2, Section 5.3.1(b), Section 5.3.4, Section 5.3.6, Section 5.5, Section 7.4.8, and those provisions set forth in Section 11.3, and **(B)** Novartis will pay to Intellia all accrued financial obligations as of the date of such termination and will continue to pay any and all of its financial obligations under Article 7 for a period of [***] days following Novartis' notice pursuant to Section 11.2.4(a)(ii)(A).

(b) Without Cause. Novartis will have the right to terminate this Agreement without cause effective upon [***] days' written notice to Intellia. If Novartis terminates this Agreement pursuant to this Section 11.2.4(b), **(i)** all provisions (other than the provisions set forth in Section 11.3) will terminate except for the following, which will survive such termination and continue in full force and effect thereafter: Section 3.6.2(b), Section 3.8.3, Section 3.9, Section 4.1.2(b), Section 4.1.2(e**)** Section 5.2, Section 5.3.1(b), Section 5.3.4, Section 5.3.6, Section 5.5, Section 7.4.8, and those provisions set forth in Section 11.3, and **(ii)** Novartis will pay to Intellia all accrued and future financial obligations as if the Research Term continued until its natural expiration (*i.e.*, five years from the Effective Date), including all Research Funding Payments as if Intellia had fully performed and without the need by Intellia to true-up its expenses under Section 7.2.1(b).

Section 11.3 Survival.

Any termination will be without prejudice to a Party's rights to seek damages in connection with any such event. Except where explicitly provided elsewhere herein, termination of this Agreement for any reason, will not affect: **(a)** obligations which have

accrued as of the date of termination or expiration (including, as to Novartis, any and all payment obligations); and **(b)** obligations and rights which, expressly or from the context thereof, are intended to survive termination or expiration of this Agreement, including Article I, Article VIII, Article IX, Article X, this Article XI, and Article XII.

ARTICLE XII
MISCELLANEOUS

Section 12.1 Governing Law and Jurisdiction.

This Agreement and all claims between the Parties arising out of or relating to this Agreement, the transactions that it contemplates (including the Intellectual Property Rights described herein), and its and their validity, interpretation, construction, performance and enforcement will be exclusively governed by the substantive laws of the Commonwealth of Massachusetts without regard to its conflict of laws principles.

Section 12.2 Disputes.

12.2.1 Referral to Executives. Either Party may refer any question, difference, or dispute that may arise concerning the construction, meaning, or effect of this Agreement or concerning the rights and liabilities of the Parties hereunder, to the Senior Officers of Intellia and Novartis, who will attempt in good faith to resolve such question, difference or dispute. If the question, difference or dispute cannot be resolved within [***] days of such referral, either Party will be free to initiate the arbitration proceedings outlined in Section 12.2.2, below. For the avoidance of doubt, any difference or dispute arising from the JSC shall be resolved in accordance with Section 3.2.5.

12.2.2 Arbitration.

(a) General Arbitration. Unless Section 12.2.2(b) is applicable, any question, difference, or dispute relating to this Agreement that cannot be resolved through informal means as set forth in Section 12.2.1 will be exclusively and finally resolved by arbitration administered in accordance with the Rules of Judicial Administration and Arbitration Services ("JAMS") in effect at the time of

submission. Arbitration proceedings will be conducted in Boston, Massachusetts, before one mutually acceptable arbitrator selected jointly by the Parties from a panel of persons experienced in the pharmaceutical and life sciences industries (or by JAMS in accordance with its rules if the Parties are unable to reach agreement). Each Party will have all rights of discovery as provided by the Federal Rules of Civil Procedure for any arbitral proceeding pursuant to this Section 12.2.2. Either Party may apply to the arbitrator for interim injunctive relief or may seek from any court having jurisdiction any injunctive or provisional relief necessary to protect the rights or property of that Party pending resolution of the matter pursuant to this Section 12.2. The Parties will have the right to be represented by counsel. Any judgment or award rendered by the arbitrator will be final and binding on the Parties, and will be governed by the terms and conditions hereof, including the limitation on damages set forth in Section 10.5. The Parties agree that such a judgment or award may be enforced in any court of competent jurisdiction. The Parties agree that all applicable statutes of limitation and time-based defenses (such as estoppel and laches) will be tolled while the dispute resolution procedures set forth in this Section 12.2 are pending. The non-prevailing Party will bear its and the prevailing Party's costs and expenses and attorneys' fees in the arbitration, except that the arbitrator may order instead each Party to bear its own costs and expenses and attorneys' fees in the arbitration if the arbitrator finds that the non-prevailing Party's positions on the issues in the dispute had relative merit. The Party that does not prevail in the arbitration proceeding in all instances will pay the arbitrator's fees and expenses and any administrative fees of arbitration. All proceedings and decisions of the arbitrator(s) will be deemed Confidential Information of each of the Parties, and will be subject to Article VIII.

(b) Accelerated Arbitration. To the extent the arbitration matter involves a question, difference or dispute that either Party may submit to accelerated arbitration for resolution as permitted under the other provisions of

this Agreement, or any dispute regarding the proper characterization of a question, difference or dispute subject to resolution under this Section 12.2.2(b) as opposed to Section 12.2.2(a), the following procedures will also apply:

(i) [***]

12.2.3 Stay of Termination. Any purported termination of this Agreement under Section 11.2.1 will be automatically stayed during the pendency of any arbitration proceeding commenced under Section 12.2.2.

Section 12.3 Waiver.

No provision of this Agreement may be waived except in writing by both Parties hereto. No failure or delay by either Party hereto in exercising any right or remedy hereunder or under applicable law will operate as a waiver thereof, or a waiver of any right or remedy on any subsequent occasion.

Section 12.4 Severability.

Should one or more provisions of this Agreement be or become invalid, then the Parties hereto will attempt to agree upon valid provisions in substitution for the invalid provisions, which in their economic effect come so close to the invalid provisions that it can be reasonably assumed that the Parties would have accepted this Agreement with those new provisions. If the Parties are unable to agree on such valid provisions, the invalidity of such one or more provisions of this Agreement will not affect the validity of the Agreement as a whole, unless the invalid provisions are of such essential importance for this Agreement that it may be reasonably presumed that the Parties would not have entered into this Agreement without the invalid provisions.

Section 12.5 Government Acts.

If any Applicable Law should make impossible or prohibit, restrain, modify or limit any material act or obligation of the Parties under this Agreement, the Party, if any, not so affected, will have the right, at its option, to suspend or terminate this Agreement

as to such country, if good faith negotiations between the Parties to make such modifications therein as may be necessary to fairly address the impact thereof are not successful after a reasonable period of time (not to exceed [***] days) in producing mutually acceptable modifications to this Agreement.

Section 12.6 Export Controls.

This Agreement is made subject to any restrictions concerning the export of materials and technology from the United States that may be imposed upon or related to either Party to this Agreement from time to time by the government of the United States. Furthermore, each Party will not export, directly or indirectly, any technical information acquired from the other Party under this Agreement or any products or services using such technical information to any countries for which the United States government or any agency thereof at the time of export requires an export license or other governmental approval, without first obtaining the written consent to do so from the Department of Commerce or other agency of the United States government when required by applicable statute or regulation.

Section 12.7 Assignment.

Neither Party may assign this Agreement or any of its rights under this Agreement or (except as otherwise expressly provided in this Agreement) delegate its performance under this Agreement, except to any of its Affiliates and to any Third Party successor to all or substantially all of the assets or business of such Party to which this Agreement relates, whether in a merger, sale of stock, sale of assets, reorganization or other transaction. Any purported assignment and/or delegation by a Party in contravention of this Section 12.7 will, at the option of the other Party, be null and void and of no effect. No assignment will release either Party from responsibility for the performance of any accrued obligation of such Party hereunder. This Agreement will be binding upon and enforceable against the administrators, legal representatives, and successors of the Parties.

Section 12.8 Affiliates.

Each Party may perform its obligations hereunder personally or through one or more Affiliates. Each Party will be solely responsible for the acts and omissions of its Affiliates. Neither Party will permit any of its Affiliates to commit any act (including any omission) that such Party is prohibited hereunder from committing directly. Any material breach of the terms and conditions of this Agreement by a Party's Affiliate will be construed as a material breach by such Party under this Agreement.

Section 12.9 Counterparts.

This Agreement may be executed in counterparts, each of which will be deemed to be original and both of which will constitute one and the same Agreement.

Section 12.10 No Agency.

Nothing herein contained will be deemed to create an agency, joint venture, amalgamation, partnership or similar relationship between Novartis and Intellia and their respective Affiliates. Notwithstanding any of the provisions of this Agreement, neither Party to this Agreement will at any time enter into, incur, or hold itself out to third parties as having authority to enter into or incur, on behalf of the other Party, any commitment, expense, or liability whatsoever, and all contracts, expenses and liabilities in connection with or relating to the obligations of each Party under this Agreement will be made, paid, and undertaken exclusively by such Party on its own behalf and not as an agent or representative of the other.

Section 12.11 Notice.

All notices, requests, demands and other communications between the Parties with respect to any of the provisions of this Agreement will be sent to the addresses set out below, or to such other addresses as may be designated by one Party to the other by notice pursuant hereto, by internationally recognized courier (*e.g.*, FedEx, DHL, *etc.*), with receipt signature required to the addresses set out below.

if to Novartis, at:

Novartis Institutes for BioMedical Research, Inc.
250 Massachusetts Avenue
Cambridge, MA 02139
Attention: Global Head, Strategic Alliances

with a required copy to:

Novartis Institutes for BioMedical Research, Inc.
250 Massachusetts Avenue
Cambridge, MA 02139
Attention: General Counsel

if to Intellia, at:

Intellia Therapeutics, Inc.
130 Brookline Street, Suite 201
Cambridge, MA 02139
Attention: Chief Executive Officer

with required copies to:

Intellia Therapeutics, Inc.
130 Brookline Street, Suite 201
Cambridge, MA 02139
Attention: General Counsel

and

Goodwin | Procter LLP
Exchange Place
53 State Street
Boston, Massachusetts 02109
Attention: Arthur R. McGivern & Karen A. Spindler

Section 12.12 [***]

[***]

Section 12.13 Securitization.[***]

Section 12.14 Third Party Beneficiaries.

The terms and conditions of this Agreement, express or implied, exist only for the benefit of the Parties and their respective successors and permitted assigns. Except under Article X, this Agreement does not confer any enforceable rights or remedies upon any Person other than the Parties.

Section 12.15 Entire Agreement; Amendment.

This Agreement, together with its Exhibits, contains the entire understanding of the Parties relating to the matters referred to herein, and may only be amended by a written document, duly executed on behalf of the respective Parties, expressly referencing this Agreement. For the avoidance of doubt, the Equity Agreements remain in full force and effect with respect to their terms; *provided* that any disclosures after the Effective Date shall be governed by the terms of this Agreement.

Section 12.16 Force Majeure.

Neither Novartis nor Intellia will be liable for failure of or delay in performing obligations set forth in this Agreement, and neither will be deemed in breach of such obligations, if such failure or delay is due to natural disasters or any causes reasonably beyond the control of Novartis or Intellia; *provided* that the Party affected will promptly notify the other of the force majeure condition and will exert all reasonable efforts to eliminate, cure or overcome any such causes and to resume performance of its obligations as soon as possible.

[Signature Page Follows]

Executed as of the Effective Date.

NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.

By: /s/ Scott Brown
Name: Scott Brown
Title: VP, General Counsel

INTELLIA THERAPEUTICS, INC.

By: /s/ Nessan Bermingham
Name: Nessan Bermingham
Title: Chief Executive Officer

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

Exhibit A

Sample Invoice

[***] INVOICE

[***]

[***]		[***]	[***]
[***]	[***]		[***]
		[***]	[***]

[***]

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

Exhibit B

Novartis HSC Background Intellectual Property

The compound known at Novartis as [***]

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Exhibit C

Novartis Other Background Intellectual Property

Novartis Patent Family	Title
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

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Exhibit D

Sample Calculation of Research Costs

Intellia/Novartis Research Year:

Name	Collaboration Program X	Collaboration Program X	Collaboration Program X	Collaboration Program X	FTE Total #	FTE Expense @ $300k/FTE
A. Smith						
B. Smith						
C. Smith						
D. Smith						
FTE Total						

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Exhibit E

Example Royalty Calculation for royalties due on Products under Section 7.4:

[***]

Example Royalty Calculation for royalties due on Products under Section 7.6.1:

[***]

Exhibit 10.12

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EXECUTION VERSION
CONFIDENTIAL

LICENSE AND COLLABORATION AGREEMENT

By and Between

REGENERON PHARMACEUTICALS, INC.

and

INTELLIA THERAPEUTICS, INC.

April 11, 2016

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

TABLE OF CONTENTS

TABLE OF CONTENTS
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TABLE OF CONTENTS
(continued)

TABLE OF CONTENTS
(continued)

TABLE OF CONTENTS
(continued)

TABLE OF CONTENTS
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Schedules:

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LICENSE AND COLLABORATION AGREEMENT

THIS LICENSE AND COLLABORATION AGREEMENT ("Agreement"), dated as of April 11, 2016 (the "Effective Date"), is by and between REGENERON PHARMACEUTICALS, INC., a corporation organized under the laws of New York and having a principal place of business at 777 Old Saw Mill River Road, Tarrytown, New York 10591 ("Regeneron"), and INTELLIA THERAPEUTICS, INC., a corporation organized under the laws of Delaware and having a principal place of business at 130 Brookline Street, Suite 201, Cambridge, MA 02139 ("Intellia") (with each of Regeneron and Intellia referred to herein individually as a "Party" and collectively as the "Parties").

WHEREAS, the Parties each have scientific expertise and technology that is useful in the discovery and development of therapeutic products based on CRISPR-Cas (as defined below);

WHEREAS, the Parties wish to collaborate to research and develop improvements to CRISPR-Cas technology, and, in connection therewith, each Party will grant the other certain licenses in furtherance of conducting such activities;

WHEREAS, the Parties also wish to engage in a research and development program in which they will research and develop CRISPR Products Directed to certain Targets (as each such term is defined below) selected by Regeneron in accordance herewith, and, in connection therewith, each Party will grant the other certain licenses in furtherance of conducting such activities, and Intellia will grant Regeneron an exclusive license to commercialize CRISPR Products Directed to such Targets in the Field (as each such term is defined below); and

WHEREAS, each Party desires to grant to the other Party certain options to enter into an [***] cost and profit share arrangement for the development and commercialization of certain CRISPR Products.

NOW, THEREFORE, in consideration of the following mutual promises and obligations, and for other good and valuable consideration the adequacy and sufficiency of which are hereby acknowledged, the Parties agree as follows:

ARTICLE 1
DEFINITIONS

Capitalized terms used in this Agreement, whether used in the singular or plural, except as expressly set forth herein, shall have the meanings set forth below:

1.1 "Affiliate" shall mean, with respect to any Person, another Person which controls, is controlled by, or is under common control with such Person. A Person shall be deemed to control another Person if such Person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of such other Person, whether through the

ownership of voting securities, by contract, or otherwise. Without limiting the generality of the foregoing, a Person shall be deemed to control another Person if any of the following conditions is met: (a) in the case of corporate entities, direct or indirect ownership of more than fifty percent (50%) of the stock or shares having the right to vote for the election of directors, and (b) in the case of non-corporate entities, direct or indirect ownership of more than fifty percent (50%) of the equity interest with the power to direct the management and policies of such non-corporate entities. The Parties acknowledge that in the case of certain entities organized under the laws of certain countries outside of the United States, the maximum percentage ownership permitted by law for a foreign investor may be less than fifty percent (50%), and that in such case such lower percentage shall be substituted in the preceding sentence, provided that such foreign investor has the power to direct the management and policies of such entity. For purposes of this Agreement, in no event shall Intellia or any of its Affiliates be deemed an Affiliate of Regeneron or any of its Affiliates nor shall Regeneron or any of its Affiliates be deemed an Affiliate of Intellia or any of its Affiliates.

1.2 "Anti-Corruption Laws" shall mean all Applicable Laws regarding public or private-sector corruption, bribery, kickbacks, speed or facilitation payments, ethical business conduct, money laundering, embezzlement, political contributions, gifts, gratuities, expenses, entertainment, hospitalities, agency relationships, commissions, lobbying, books and records, and financial controls, including the FCPA, the U.S. Travel Act, and other anti-corruption laws.

1.3 "API" shall mean any active pharmaceutical (including biological) ingredient or component (but excluding, for clarity, an adjuvant or excipient).

1.4 "Applicable Law" shall mean applicable laws, rules, and regulations, including any rules, regulations, guidelines, standard, agency requirement, license, or permit or other requirements of any Governmental Authority, which may be in effect from time to time, including Good Practices.

1.5 "Approval" shall mean, with respect to each Regeneron Product, any approval, registration, license or authorization from the applicable Regulatory Authority required for the development, manufacture or commercialization of such Regeneron Product in a regulatory jurisdiction, and shall include any such approval, registration, license or authorization granted for any Marketing Approval.

1.6 "Available Liver Target" shall mean any Liver Target that, at the applicable time, is not an Intellia Reserved Liver Target, a Declined Target, an Intellia Liver Target, a Regeneron Target or a Regeneron Evaluation Target.

1.7 "Biosimilar Application" means an application or submission filed with a Regulatory Authority for Marketing Approval of a pharmaceutical or biological product claimed to be biosimilar or interchangeable to any Regeneron Product or otherwise relying on the approval of such Regeneron Product, including, for example, an application filed under 42 U.S.C. §262(k).

1.8 "BPCIA" means the Biologics Price Competition and Innovation Act of 2009, and its implementing regulations promulgated thereunder, as both may be amended from time to time, or equivalent legislation in countries other than the United States.

1.9 "Business Day" shall mean any day other than a Saturday, a Sunday or a day on which commercial banks in New York, New York, are authorized or required by law to remain closed.

1.10 "Caribou-Intellia License Agreement" means the License Agreement by and between Caribou Biosciences Inc. ("Caribou") and Intellia, dated July 16, 2014, as supplemented by the Supplement to License Agreement between Intellia and Caribou dated August 21, 2015 and as amended by Amendment No. 1 to License Agreement and the Addendum to License Agreement, each between Intellia and Caribou and each dated February 2, 2016, as may be amended following the Effective Date in accordance with Section 12.4.

1.11 "CART" means a T-cell engineered to express a CAR.

1.12 "Change of Control" means, with respect to a Party, (a) a merger or consolidation of such Party with a Third Party that results in the voting securities of such Party outstanding immediately prior thereto, or any securities into which such voting securities have been converted or exchanged, ceasing to represent more than fifty percent (50%) of the combined voting power of the surviving entity or the parent of the surviving entity immediately after such merger or consolidation, (b) a transaction or series of related transactions in which a Third Party, together with its Affiliates, (i) becomes the direct or indirect beneficial owner of more than fifty percent (50%) of the combined voting power of the outstanding securities, and (ii) acquires the ability to appoint a majority of the board of directors, of such Party, or (c) the sale or other transfer to a Third Party of all or substantially all of such Party's and its Affiliates' assets.

1.13 "Chimeric Antigen Receptor" or "CAR" means [***].

1.14 "Combination Product" shall mean a Regeneron Product incorporating or comprising at least [***] CP that is developed under this Agreement and at least [***].

1.15 "Commercially Reasonable Efforts" shall mean, with respect to the efforts to be expended by a Party or its Affiliate with respect to any objective, activity or decision to be undertaken hereunder, those reasonable, good faith efforts and resources to accomplish such objective, activity or decision consistent with those efforts and resources the relevant Party would normally use to accomplish a similar objective, activity or decision under similar circumstances, it being understood and agreed that with respect to the research, development, manufacture, seeking and obtaining Marketing Approval, or commercialization of a product, such efforts and resources shall be consistent with the usual practices of such Party [***].

1.16 "Contract Year" shall mean the period beginning on the Effective Date and ending on December 31, 2016, and each succeeding twelve (12) month period thereafter during the Term (except that the last Contract Year shall end on the effective date of any termination or expiration of the Term).

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

1.17 "Control" shall mean, with respect to any Material, Confidential Information, Intellectual Property right, or trademark that a Party (a) owns such Material, Confidential Information, Intellectual Property right, or trademark, or (b) has a license or right to use to such Material, Confidential Information, Intellectual Property right, or trademark, in each case of (a) or (b), with the ability to grant to the other Party access to, or a license or a sublicense (as applicable) of such rights to such Material, Confidential Information, Intellectual Property right, or trademark on the terms and conditions set forth herein, without (i) violating the terms of any agreement with any Third Party in existence as of the Effective Date or (ii) with respect to any such Material, Confidential Information, Intellectual Property right, or trademark that Intellia (or its Affiliate) in-licenses pursuant to an in-license agreement entered into by Intellia (or its Affiliate) with a Third Party after the Effective Date, having an obligation to pay any royalties or other consideration or that is subject to additional conditions that are applicable to a sublicensee under such in-license, unless Regeneron agrees to assume the applicable obligations pursuant to the election procedures set forth in Section 7.3, as applicable, or (iii) with respect to any such Material, Confidential Information, Intellectual Property Right, or trademark that Intellia (or its Affiliate) comes to own after the Effective Date that was invented under [***] or (iv)with respect to any such Material, Confidential Information, Intellectual Property right, or trademark that Regeneron (or its Affiliate) in-licenses pursuant to an in-license agreement entered into by Regeneron (or its Affiliate) with a Third Party after the Effective Date, having an obligation to pay any royalties or other consideration or that is subject to additional conditions that are applicable to a sublicensee under such in-license, unless Intellia agrees to assume the applicable obligation under such in-licenses, as applicable, or (v) with respect to any such Material, Confidential Information, Intellectual Property Right, or trademark that Regeneron (or its Affiliate) comes to own after the Effective Date [***] , in each of (i), (ii), (iii),(iv) and (v), as of the time such Party or its Affiliates would first be required hereunder to grant the other Party such access, license or (sub)license; provided, that, for clarity, Intellia will be deemed to Control such Intellectual Property as is licensed to it under the Intellia Existing Third Party Licenses (but subject to the terms and conditions of those Intellia Existing Third Party Licenses as and to the extent set forth in Section 7.3(f)). Notwithstanding anything in this Agreement to the contrary, in the event of a Change of Control of a Party, a Party will be deemed not to Control any Material, Confidential Information, Intellectual Property right, or trademark that are owned or in-licensed by a Third Party described in the definition of "Change of Control" or such Third Party's Affiliates (other than such Party or such Party's Affiliates immediately prior to the closing of such Change of Control) (a) prior to the closing of such Change of Control, except to the extent that any such Patent Rights, Know-How or Materials were Controlled by such Party or any of its Affiliates prior to such Change of Control, or (b) after such Change of Control to the extent that such Patent Rights, Know-How or Materials are invented or created by such Third Party or its Affiliates (other than such Party or such Party's Affiliates immediately prior to the closing of such Change of Control) after such Change of Control without using or incorporating any Patent Rights, Know-How or Materials licensed hereunder, provided that, notwithstanding

the foregoing, following such Change of Control, such Party shall in all cases be deemed to Control all Patent Rights, Know-How and Materials (1) arising from the performance of activities under this Agreement, including the Technology Collaboration, Regeneron Target Evaluation Programs, Intellia Target Evaluation Programs or Product R&D Programs, on the terms as set forth in this Agreement, or (2) that are improvements to, or derivatives of, or are otherwise based on or incorporates, any Patent Rights, Know-How or Materials Controlled by such Party or any of its Affiliates prior to such Change of Control or (3) that such Party or its Affiliates chooses to make available for the conduct of activities under this Agreement or actually uses in the conduct of activities under this Agreement.

1.18 "Cover", "Covering" or "Covered" shall mean, with respect to a given product in a given country, that the composition of matter (other than formulation) of such product, or method of use or manufacture of such product, is claimed under a Valid Claim in the country of sale [***] of such product and that in the absence of ownership of or a license granted under such Valid Claim, the manufacture, use, offer for sale, sale or importation of such product or the practice of such method, would infringe such Valid Claim; provided, that with respect to a method of use, such method of use is for an indication for which a Marketing Approval has been received for such product in such country (as set forth on the approved labeling in such country for such product).

1.19 "CPI" shall mean the Consumer Price Index – All Urban Consumers for the country in which the applicable personnel are located (for example, CPI-U for the United States) published by the United States Department of Labor, Bureau of Statistics (or its successor equivalent index), or an equivalent index in a foreign country applicable to FTEs in such country.

1.20 "CPI Adjustment" shall mean the percentage increase or decrease, if any, in the CPI applicable to the applicable personnel for the [***] months ending [***] of the Contract Year prior to the Contract Year for which the adjustment is being made.

1.21 "CRISPR-Cas" shall mean genome editing technology using (a) [***] the enzyme known as Cas9, or variants thereof, [***] together with (b) one (1) or more nucleic acid molecules [***] that is/are required for the function or targeting of the [***] in clause (a) (the materials specified in clauses (a) and (b), the "CRISPR-Cas Materials").

1.22 "CRISPR Product" or "CP" shall mean any product that uses or incorporates CRISPR-Cas or, with respect to the Ex-Vivo Field, is a cell-based therapeutic product manufactured using CRISPR-Cas.

1.23 "Declined Target" shall mean (a) each Intellia Liver Target that specifically becomes designated as a Declined Target [***], and (b) each Regeneron Target that is specifically designated as, or specifically becomes, a Declined Target [***].

1.24 "Directed to" shall mean, with respect to a particular CP and a particular Target, that such CP is engineered or selected to specifically Modulate such Target. [***]

1.25 "Executive Officers" shall mean the [***] of Regeneron and the [***] of Intellia, or their respective designees with equivalent decision-making authority with respect to matters under this Agreement.

1.26 "Ex-Vivo Field" shall mean modification of cells using CRISPR-Cas where such modification is conducted ex vivo for the purpose of reintroducing such modified cells into a patient for therapeutic purposes.

1.27 "FCPA" shall mean the U.S. Foreign Corrupt Practices Act of 1977 (15 U.S.C. §§78dd-1, *et seq*.) as amended.

1.28 "FDA" shall mean the United States Food and Drug Administration and any successor agency thereto.

1.29 "Field" shall mean any and all [***] uses of CPs for therapeutic, palliative, prophylactic, and diagnostics purposes but excluding [***].

1.30 "First Commercial Sale" shall mean, with respect to a Regeneron Product and a country, the first commercial sale by or on behalf of Regeneron or any of its Affiliates or sublicenses to a Third Party for use or consumption by the general public (including through public or private means or markets) of such Regeneron Product in the Field in such country after Marketing Approval for commercial sale of such Regeneron Product has been obtained in such country or where Marketing Approval in such country is not required, but where such sale is permitted to occur under, or is dependent upon, Marketing Approval for such Regeneron Product in another major market country, such as so called "named patient sales" or any compassionate use. Sales for test marketing or clinical trial purposes shall not be construed as a First Commercial Sale.

1.31 "FTE" shall mean a full time equivalent employee [***] employed by Party (or its Affiliate) who performs activities under a Plan, with such commitment of time and effort to constitute [***] employee performing such work on a full-time basis, which for purposes hereof shall be [***] hours per Contract Year (pro-rated for any Contract Year that is less than twelve (12) months).

1.32 "FTE Cost" shall mean, for a given period, the number of FTEs for such period multiplied by the FTE Rate.

1.33 "FTE Rate" shall mean (a) for each FTE based in the US, $[***] per FTE per Contract Year, adjusted each Contract Year on January 1 (commencing on January 1, 2017) in accordance with any CPI Adjustment, and (b) for each FTE based outside the U.S., such amount as the Parties shall agree to, in writing, in the local currency in the country where such FTE is based (which shall be converted into United States Dollars in accordance with Section 9.9). [***]

1.34 [***]

1.35 [***]

1.36 "GAAP" shall mean generally accepted accounting principles as applicable in the United States.

1.37 "Gene" shall mean a contiguous DNA sequence that is transcribed [***].

1.38 "Good Practices" shall mean compliance with the applicable standards contained in then-current "Good Laboratory Practices" or "GLP", "Good Manufacturing Practices" or "GMP" and "Good Clinical Practices" or "GCP" as promulgated by the FDA, and all analogous guidelines promulgated by the EMA or the ICH, as applicable.

1.39 "Governmental Authority" shall mean any court, agency, authority, department, regulatory body, or other instrumentality of any government or country or of any national, federal, state, provincial, regional, county, city, or other political subdivision of any such government or any supranational organization of which any such country is a member, including Regulatory Authorities.

1.40 "HSC" means hematopoietic stem cells [***].

1.41 "ICH" shall mean the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use.

1.42 "IND" shall mean, with respect to a product, an Investigational New Drug Application filed with the FDA pursuant to 21 C.F.R. § 312 the filing of which is necessary to commence clinical testing of such product in humans, including all amendments and supplements to such application, or any equivalent filing with any Regulatory Authority outside the United States.

1.43 "IND Acceptance" shall mean, with respect to a particular Regeneron Product, that the particular IND for such Regeneron Product was accepted by the FDA (or other applicable Regulatory Authority outside the United States if the IND was submitted to such Regulatory Authority outside the United States), as evidenced by no objection by the FDA (or such other applicable Regulatory Authority outside the United States) within [***]) days after the date of the IND submission (or any amended submission if such amendment restarted the applicable [***]-day period).

1.44 "Intellectual Property" shall mean any Know-How, Patent Rights, copyrights and any other intellectual property rights, but excluding trademarks.

1.45 [***]

1.46 "Intellia Allocated Regeneron Target Evaluation Plan Costs" shall mean all Plan Costs for Regeneron Target Evaluation Plans that are not Regeneron Allocated Regeneron Target Evaluation Plan Costs, until such time as the JSC determines that continued evaluation of the Regeneron Evaluation Target is [***].

1.47 "Intellia Background Patent Rights" shall mean those Patent Rights that (1) are Controlled by Intellia or any of its Affiliates (a) as of the Effective Date or (b) during the IP Term [***], or (c) during the IP Term [***], or (d) any (i) Patent Rights claiming priority to the Patent Rights, or (ii) foreign equivalents of the Patent Rights, in each case of (i) and (ii), in subclauses (a), (b), or (c), but in each of (a), (b), (c), and (d) excluding Patent Rights to the extent within the [***] Intellia Materials Improvements, Intellia CRISPR-Cas IP, [***] Regeneron Product Inventions, Regeneron Materials Improvements, [***] and (2) are necessary or useful for (i) the research, development, making, using, exploitation or selling of (A) a CP (or any component thereof) that is or could be Directed to a Target that is or could become a Regeneron Target or (B) CRISPR-Cas, or (ii) the conduct of the Technology Collaboration, Regeneron Target Evaluation Program, Intellia Target Evaluation Program or the Product R&D Program. The Intellia Background Patent Rights as of the Effective Date include those set forth in Schedule 1.47.

1.48 "Intellia CP" shall mean any CP owned or controlled by Intellia (or any of its Affiliates), or any other CP for which Intellia (or any of its Affiliates) has a material role in its research, development, manufacture or commercialization (including Intellia Liver Products), but in all events excluding any Regeneron Product.

1.49 "Intellia CRISPR-Cas IP" shall mean (i) any improvement, enhancement or modification to any CRISPR-Cas, including any composition of, or any method of using or making, CRISPR-Cas Materials, and (ii) any Intellectual Property in and to the foregoing clause (i), in each of (i) and (ii) that is invented solely by or on behalf of Intellia [***].

1.50 "Intellia Existing Third Party Agreements" shall mean those agreements entered into by Intellia or an Affiliate of Intellia and a Third Party as of the Effective Date, including any amendments or restatements thereto as of the Effective Date or amendments following the Effective Date in accordance with Section 12.4, and under which Intellia is granted rights which are then sublicensed to Regeneron hereunder as Intellia Patent Rights, Intellia Know-How or Intellia Materials [***]. The Intellia Existing Third Party Agreements are set forth on Schedule 1.50.

1.51 "Intellia Intellectual Property" shall mean the Intellia Patent Rights and the Intellia Know-How.

1.52 "Intellia Know-How" shall mean any and all Know-How that (a) is Controlled by Intellia or any of its Affiliates (i) as of the Effective Date or (ii) during the IP Term [***], and

(b) is necessary or useful for (i) the research, development, making, using, exploitation or selling of (A) a CP (or any component thereof) that is or could be Directed to a Target that is or could become a Regeneron Target or (B) CRISPR-Cas, [***] or (ii) the conduct of the Technology Collaboration, Regeneron Target Evaluation Program, Intellia Target Evaluation Program or the Product R&D Program. Intellia Know-How shall include Know-How created during the IP Term in or related to Intellia Materials, Intellia Materials Improvements or Intellia CRISPR-Cas IP, as well as Intellia's interests in any [***].

1.53 "Intellia Liver Product" shall mean a Liver Product that is Directed to an Intellia Liver Target that is not an Intellia Reserved Liver Target or a Declined Target.

1.54 "Intellia Liver Target" shall mean a Liver Target selected by Intellia for its development pursuant to Section 4.1 of this Agreement that is not an Intellia Reserved Liver Target or a Declined Target.

1.55 "Intellia Materials" shall mean Intellia's (or its Affiliate's) proprietary [***] that are used in the performance of this Agreement or otherwise licensed to Regeneron hereunder. [***]

1.56 "Intellia Materials Improvement" shall mean (a) any Intellectual Property that is invented by or on behalf of either Party (solely or jointly with the other) under this Agreement during the IP Term that constitutes or comprises an improvement, enhancement or other modification to any Intellia Materials [***] including any such Intellectual Property that comprises a composition of, or any method of using or making, Intellia Materials [***], and (b) any Patent Rights to the extent within the Intellectual Property in the foregoing clause (a), in each case of (a) and (b) other than Regeneron Product Inventions, Regeneron Materials Improvements, [***] Intellia CRISPR-Cas IP or [***].

1.57 "Intellia Patent Rights" shall mean the Intellia Background Patent Rights and Intellia's interest in Patent Rights to the extent within [***]Intellia Materials Improvements, Intellia CRISPR-Cas IP[***]. Intellia Patent Rights shall include the Patent Rights listed on Schedule1.47.

1.58 "Intellia Reserved Liver Targets" shall mean those Targets set forth on Schedule 1.58.

1.59 "Intellia Target Evaluation Plan" shall mean a written plan associated with the evaluation of a particular Intellia Liver Target and setting forth the evaluation activities to be conducted for such Intellia Liver Target as set forth in Section 4.1(a)(v). For clarity, there shall be a distinct plan for each Intellia Liver Target that is selected for inclusion under the Intellia Target Evaluation Program in accordance with Section 4.1(a)(v)(1), which plan will be prepared and modified in accordance with Section 4.1(a)(v)(2).

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

1.60 "Intellia Target Evaluation Program" shall mean collectively, or individually, as applicable, the program(s) to be performed under this Agreement as more particularly described in Section 4.1(a)(v) that is/are intended to assist Intellia in the evaluation of the Intellia Liver Targets, as set forth in the applicable Intellia Target Evaluation Plan(s).

1.61 "Intellia Target Evaluation Program Inventions" shall mean all Intellectual Property that is invented by or on behalf of either Party (or by the Parties jointly) in the performance of activities under the Intellia Target Evaluation Program [***]

1.62 "Intellia Target Evaluation Program Term" shall mean, for each Intellia Liver Target that is subject to an Intellia Target Evaluation Program, on an Intellia Target Evaluation Program-by-Intellia Target Evaluation Program basis, the period commencing on the date that such Intellia Liver Target is selected for inclusion under the Intellia Target Evaluation Program in accordance with Section 4.1(a)(v)(1) and expiring on the first to occur of (i) the expiration or termination of this Agreement in its entirety, (ii) [***] or (iii) the end of the Target Selection Period.

1.63 "IP Term" shall mean that period, during the Term, commencing on the Effective Date and continuing for five (5) years following the later of (i) the end of the Technology Collaboration Term, and (ii) the end of the last Product R&D Program Term.

1.64 "Joint Improvement" shall mean [***]:

(a) (i) any Intellectual Property that is invented by or on behalf of either Party (solely or jointly with the other) under this Agreement during the IP Term that constitutes or comprises a composition of, or any method of using or making, a combination of Intellia Materials and Regeneron Materials, including an improvement, enhancement or other modification to the combination of Intellia Materials and Regeneron Materials (i.e., such Intellectual Property necessarily involves both Intellia Materials and Regeneron Materials), and (ii) any Patent Rights to the extent within the Intellectual Property in the foregoing clause (i); and

(b) (i) any improvement, enhancement or modification to any CRISPR-Cas, including any composition of, or any method of using or making, CRISPR-Cas Materials, and (ii) any Intellectual Property in and to the foregoing clause (i), in each of (i) and (ii) that is invented (x) by or on behalf of Intellia alone [***], or (y) by or on behalf of Regeneron alone or jointly by or on behalf of the Parties under this Agreement, in each of (x) and (y) during the IP Term ("Joint CRISPR-Cas Improvements").

1.65 "Know-How" shall mean any and all proprietary technical or scientific information, data, test results, conclusions, analysis, knowledge, techniques, discoveries, inventions, specifications, designs, trade secrets, chemical structures, compositions of matter and other information (whether or not patentable or otherwise protected by trade secret law).

1.66 "Lead Candidate" shall mean a Regeneron Product or Intellia Liver Product, as applicable, that [***] has been selected by the respective Party for initiation of preclinical studies [***] needed to support an IND and the initiation of GMP manufacturing.

1.67 "Legal Dispute" shall mean any dispute related to a Party's alleged material breach of this Agreement or the validity, breach, termination or interpretation of this Agreement, or Intellectual Property-related disputes.

1.68 "Liver Cell" shall mean any of the [***] cells constituting the liver itself or contained within the liver that are involved in the functional activities of the liver [***].

1.69 "Liver Product" shall mean any CP that has been specifically engineered or selected to confer its intended therapeutic effect by Modulating a Target in a Liver Cell. [***]

1.70 "Liver Target" shall mean any Target to which a Liver Product or anticipated Liver Product is Directed.

1.71 "Manufacturing Cost" shall mean the fully burdened cost (without mark-up) of manufacturing a Regeneron Product [***].

1.72 "Marketing Approval" shall mean all approvals of the applicable Regulatory Authority necessary for the marketing and sale of a Regeneron Product in a given country (or other jurisdiction).

1.73 "Modulate" shall mean, with respect to a Target[***].

1.74 "Net Sales" shall mean, with respect to a Regeneron Product, the gross amount invoiced for bona fide arms' length sales of all units of such Regeneron Product in the Field by or on behalf of Regeneron or its Affiliates or sublicensees (but excluding distributors) to the first Third Party (including distributors), less the following deductions, consistently applied:

(a) [***]

Such amounts will be determined from the books and records of Regeneron, its Affiliates and sublicensees, maintained in accordance with GAAP. Net Sales in currency other than United States Dollars shall be converted into United States Dollars according to the provisions of Section 9.9 of this Agreement.

Sales between Regeneron and its Affiliates or sublicensees, for resale, shall be disregarded for purposes of calculating Net Sales. Any of the items set forth above that would otherwise be deducted from the invoice price in the calculation of Net Sales but which are separately charged to and paid by Third Parties shall not be deducted from the invoice price in the calculation of Net Sales. In the case of any sale of a Regeneron Product for consideration other than cash, such as barter or countertrade, Net Sales shall be calculated based [***].

Solely for purposes of calculating Net Sales, if Regeneron or any of its Affiliates or sublicensees sells any Regeneron Product in the form of a Combination Product, then [***].

1.75 [***]

1.76 [***]

1.77 [***]

1.78 [***]

1.79 "Non-Liver Product" shall mean any CP that is not a Liver Product.

1.80 "Non-Liver Target" shall mean any Target to which a Non-Liver Product or anticipated Non-Liver Product is Directed.

1.81 "Offsettable Amounts" shall mean milestones due pursuant to Section 9.2 and Royalties due pursuant to Section 9.3.

1.82 "Option Package" shall mean (a) with respect to Intellia, the following information related to all Intellia Liver Products Directed to a given Intellia Liver Target to be provided to Regeneron pursuant to Section 5.1(d), or (b) with respect to Regeneron, the following information related to all Regeneron Products Directed to a given Regeneron Target to be provided to Intellia pursuant to Section 5.2(b), as applicable:

[***]

(e) such other information as reasonably determined by the JSC.

1.83 [***]

1.84 "Out-of-Pocket Costs" shall mean costs and expenses paid to [***] under [***] in accordance with this Agreement and such Plan [***]

1.85 "Patent Application" shall mean any application for a Patent, including any provisional, non-provisional, continuation, continuation-in-part or divisional applications and any PCT international applications or national phase applications, whether in the U.S. or any foreign country, including any applications claiming priority to any of the foregoing.

1.86 "Patent Rights" shall mean Patents and Patent Applications and without limiting the foregoing, the right to claim priority of such Patents and Patent Applications.

1.87 "Patents" shall mean any patent, including any patent(s) that issue from a Patent Application, and further including any reissue, extension, substitution, confirmation, re-registrations, re-examination, revival, supplementary protection certificate or patents of addition, whether in the U.S. or any foreign country.

1.88 "Person" shall mean and include an individual, partnership, joint venture, limited liability company, corporation, firm, trust, unincorporated organization or government or other department or agency thereof.

1.89 "Phase I Trial" shall mean a human clinical trial that would satisfy the requirements of 21 C.F.R. 312.21(a) (as amended or any replacement thereof), including an equivalent clinical trial conducted in a country other than the United States.

1.90 "Phase II Trial" shall mean a human clinical trial that would satisfy the requirements of 21 C.F.R. 312.21(b) (as amended or any replacement thereof), including an equivalent clinical trial conducted in a country other than the United States.

1.91 "Phase III Trial" shall mean a human clinical trial that would satisfy the requirements of 21 C.F.R. 312.21(c) (as amended or any replacement thereof), including, to the extent satisfying the foregoing requirements (a) a human clinical trial that becomes a registration trial sufficient for filing an application for a Marketing Approval for such product in the United States or (b) an equivalent clinical trial in conducted in a country other than the United States.

1.92 "Plans" shall mean, collectively, the Technology Collaboration Plan, the Regeneron Target Evaluation Plans, the Intellia Target Evaluation Plans and the Product R&D Plans, and each individually shall be a "Plan".

1.93 "Plan Costs" shall mean the following costs incurred by a Party directly in connection with the performance of its obligations under the applicable Plan in accordance with this Agreement and the applicable Plan, but solely to the extent set forth in the JSC-approved budget (based on Quarters) for the applicable Plan:

(d) [***]any other costs or expenses specifically identified and included in the applicable Plan or otherwise expressly included as Plan Costs under this Agreement.

[***]

1.94 "Product R&D Plan" shall mean a written plan and Quarterly budget associated with the discovery, research, preclinical development, and manufacture of Regeneron Products. For clarity, there shall be a distinct plan for each Regeneron Target, which plans will be prepared and modified in accordance with Section 4.3(d).

1.95 "Product R&D Program" shall mean collectively, or individually, as applicable, the research and development program(s) to be performed under this Agreement that is/are intended to discover, research, manufacture and develop Regeneron Products, as set forth in the applicable Product R&D Plan(s).

1.96 "Product R&D Program Inventions" shall mean all Intellectual Property that is invented by or on behalf of either Party (or by the Parties jointly) in the performance of (i) activities under a Product R&D Program, or (ii) in connection with the development, manufacture or commercialization of any Regeneron Product (other than the Technology Collaboration) during the IP Term but following the end of the Product R&D Program for such Regeneron Product [***]

1.97 "Product R&D Program Term" shall mean, on a Product R&D Program-by-Product R&D Program basis, the period commencing on the date that a Target is selected as a Regeneron Target by Regeneron in accordance with Section 4.2 and expiring on the date of IND Acceptance with respect to a Regeneron Product Directed to such Regeneron Target and developed under such Product R&D Program. [***]

1.98 [***]

1.99 "Quarter" or "Quarterly" shall refer to a calendar quarter, except that the first (1st) Quarter shall commence on the Effective Date and extend to the end of the then-current calendar quarter and the last calendar quarter shall extend from the first day of such calendar quarter until the effective date of the termination or expiration of this Agreement.

1.100 [***]

1.101 "Regeneron Allocated Regeneron Target Evaluation Plan Costs" shall mean [***] for the [***] Regeneron Evaluation Targets that Regeneron selects from the Liver Target Pool for a Regeneron Target Evaluation Program during each [***] period starting on the Effective Date, on a Regeneron Target Evaluation Program-by Regeneron Target Evaluation Program basis, all Plan Costs [***].

1.102 "Regeneron Contributed IP" shall mean (a) Know-How within the Regeneron Contributed Technologies and (b) Patents to the extent within the foregoing Know-How in clause (a) or the Regeneron Contributed Technologies, in each case of (a) and (b), that is Controlled by Regeneron or its Affiliate.

1.103 "Regeneron Contributed Technology" shall mean technology Controlled by Regeneron or its Affiliates and that Regeneron chooses to contribute under this Agreement for its or Intellia's use in the performance of, as applicable:

(a) the Technology Collaboration (such technology, the "Technology Collaboration Contributed Technology"),

(b) the Regeneron Target Evaluation Program (such technology, the "Regeneron Target Evaluation Program Contributed Technology"), or

(c) the Product R&D Program (such technology, the "Product R&D Program Contributed Technology");

but in each case, excluding, for clarity, Regeneron's interest in any [***].

1.104 "Regeneron CRISPR-Cas IP" shall mean that subset of Regeneron Contributed Technology that is Technology Collaboration Contributed Technology [***].

1.105 [***]

1.106 [***]

1.107 [***]

1.108 [***]

1.109 "Regeneron FTO IP" shall mean, with respect to a given [***] Invention, (a) the Regeneron CRISPR-Cas IP that is (i) incorporated into or used to invent such [***] Invention in the performance of the [***] during the [***] Term and (ii) necessary for the practice of such [***] Invention and (b) any Patents to the extent within the Regeneron CRISPR-Cas IP that claim the foregoing clause (a).

1.110 "Regeneron Materials" shall mean Regeneron's (or its Affiliate's) proprietary [***] that are used in the performance of this Agreement or otherwise included in the Regeneron Contributed Technology. [***]

1.111 "Regeneron Materials Improvement" shall mean (a) any Intellectual Property that is invented by or on behalf of either Party (solely or jointly with the other) under this Agreement during the IP Term that constitutes or comprises an improvement, enhancement or other modification to any Regeneron Materials [***], including any such Intellectual Property that comprises a composition of, or any method of using or making, Regeneron Materials [***] and (b) any Patent Rights to the extent within the Intellectual Property in the foregoing clause (a), [***].

1.112 "Regeneron Material Relationship" means a written agreement or other arrangement between Regeneron (or any of its Affiliates) and a Third Party whereby Regeneron (or any of its Affiliates) has a material role at any time in the research, development, manufacture or commercialization of a product for which [***] are necessary or useful. [***]

1.113 "Regeneron Mice" shall mean Regeneron's proprietary, genetically modified mice that are used in the performance of this Agreement, and any progeny or derivatives thereof shall constitute Regeneron Materials Improvements.

1.114 "Regeneron Product" shall mean any CP developed under this Agreement, including through performance of the Technology Collaboration, Regeneron Target Evaluation Plan or the Product R&D Program, that is [***] Directed to a Regeneron Target [***]

1.115 "Regeneron Product Invention" shall mean (x) all Intellectual Property that is invented by or on behalf of either Party (or by the Parties jointly) in the performance of (i) activities under [***] or (ii) development, manufacture or commercialization of any Regeneron Product during the IP Term, in each case that solely relates to or covers one or more Regeneron Products or components thereof [***], and (y) Patent Rights within any of the foregoing Intellectual Property. [***]

1.116 [***]

1.117 "Regeneron [***] IP" shall mean [***]

1.118 "Regeneron Target" shall mean any Target that becomes a Regeneron Target pursuant to Section 4.2, including Section 4.2(b).

1.119 "Regeneron Target Evaluation Plan" shall mean a written plan associated with the evaluation of a particular Regeneron Evaluation Target as a candidate for potential selection as a Regeneron Target, which plan shall be substantially in the form attached hereto as Schedule 1.119. For clarity, there shall be a distinct plan for each Regeneron Evaluation Target, which plan will be prepared and modified in accordance with Section 4.1(a)(iii)(2).

1.120 "Regeneron Target Evaluation Program" shall mean collectively, or individually, as applicable, the program(s) to be performed under this Agreement that is/are intended to assist Regeneron in the evaluation of the Regeneron Evaluation Target [***] as set forth in the applicable Regeneron Target Evaluation Plan(s).

1.121 "Regeneron Target Evaluation Program Inventions" shall mean all Intellectual Property that is invented by or on behalf of either Party (or by the Parties jointly) in the performance of activities under the Regeneron Target Evaluation Program or Additional Evaluation Activities [***]

1.122 "Regeneron Target Evaluation Program Term" shall mean, on a Regeneron Target Evaluation Program-by-Regeneron Target Evaluation Program basis, the period commencing on the date that a Liver Target is selected as a Regeneron Evaluation Target in accordance with Section 4.1 and expiring on the first to occur of (i) the date the Regeneron Evaluation Target under such Regeneron Target Evaluation Program is selected by Regeneron as a Regeneron Target pursuant to Section 4.2, (ii) upon the expiration or termination of this Agreement in its entirety, (iii) upon the replacement of the subject Regeneron Evaluation Target in accordance with Section 4.1; (iv) [***] or (v) determination by Regeneron to cease activities under such Regeneron Target Evaluation Program by way of written notice pursuant to Section 4.1(a)(iii)(3)(g).

1.123 "Regulatory Authority" shall mean any federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity anywhere in the world with authority over the activities conducted under this Agreement or the development, manufacture, or commercialization of products.

1.124 "Regulatory Filings" shall mean regulatory applications, submissions, dossiers, notifications, registrations, Approvals, or other filings made to or with, or other approvals granted by, a Regulatory Authority that are necessary in order to develop, manufacture or commercialize a Regeneron Product in a particular country or regulatory jurisdiction.

1.125 "Reserved Ex-Vivo Field" shall mean (a) modification of cells using CRISPR-Cas where such modification is conducted ex vivo for the purpose of [***] (b) modification of HSCs using CRISPR-Cas where such modification is conducted ex vivo for the purpose of [***], and (c) modification of cells using CRISPR-Cas for use in [***].

1.126 [***]

1.127 "Target" shall mean [***]

1.128 [***]

1.129 "Technology Collaboration" shall mean the research and development activities to be performed under this Agreement that are intended to discover and develop novel technologies to enable the development of therapeutics based on CRISPR-Cas with optimal therapeutic properties.

1.130 "Technology Collaboration Inventions" shall mean all Intellectual Property that is invented by or on behalf of either Party (or by the Parties jointly) in the performance of activities under the Technology Collaboration [***]

1.131 "Technology Collaboration Plan" shall mean the written plan and budget (based on Quarters) associated with the performance of the Technology Collaboration, which plan shall be prepared and modified in accordance with Section 3.1.

1.132 "Technology Collaboration Term" shall mean the period commencing on the Effective Date and expiring on the sixth (6th) anniversary of such date; provided, that Regeneron may extend the Technology Collaboration Term, at its sole discretion, in accordance with Section 3.3(a). For clarity, the Technology Collaboration Term would also immediately expire upon the expiration or termination of this Agreement in its entirety.

1.133 "Third Party" shall mean any Person other than Intellia or Regeneron or any Affiliate of either Party.

1.134 "UC Technology License" shall mean the Exclusive License Agreement, dated as of April 16, 2013, by and between Caribou, the University of Vienna and the Regents of the University of California, as amended on April 17, 2013.

1.135 "Unavailable Target" shall mean any Non-Liver Target, (a) that is the subject of planned research activities by Intellia (or its Affiliates) pursuant to a bona fide research plan specific to such Target [***], or (b) for which Intellia has an active and ongoing research or development program for Intellia CPs Directed to such Target [***], or (c) for which Intellia has granted exclusive rights (or an exclusive option to obtain exclusive rights) to a Third Party to develop and commercialize CPs Directed to such Target [***]; or (d) for which Intellia is in active partnering or licensing discussions with a Third Party to grant exclusive rights (or an exclusive option to obtain exclusive rights) to such Third Party to develop and commercialize CPs Directed to such Target [***], in each case of (a), (b), (c) or (d), as applicable, at the time Regeneron nominates such Target pursuant to Section 4.2.

1.136 "United States" or "U.S." shall mean the United States of America and its territories and possessions.

1.137 "U.S. Export Control Laws" shall mean all applicable U.S. laws and regulations relating to the export or re-export of commodities, technologies, or services, including the Export Administration Act of 1979, 24 U.S.C. §§ 2401-2420, the International Emergency Economic Powers Act, 50 U.S.C. §§ 1701-1706, the Trading with the Enemy Act, 50 U.S.C. §§ 1 et. seq., the Arms Export Control Act, 22 U.S.C. §§ 2778 and 2779, and the International Boycott Provisions of Section 999 of the U.S. Internal Revenue Code of 1986.

1.138 "Valid Claim" shall mean a claim of an issued and unexpired Patent (including the term of any patent term extension, supplemental protection certificate, renewal or other similar extension) within the Intellia Patent Rights or Regeneron Product Inventions [***].

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

1.139 The remaining capitalized terms used in this Agreement shall have the meanings set forth in the following Sections of this Agreement:

Term	Section Reference
[***]	4.2(c)
[***]	4.2(c)
"Additional Evaluation Activities"	4.1(a)(iii)(3)(b)
"Aggregate Liver Target Pool Cap"	4.1(a)(ii)(2)
"Agreement"	Preamble
"Alleged Party"	16.4(b)
"Alleging Party"	16.4(b)
"Alliance Manager" or "Alliance Managers"	2.3
"Annual Technology Cost Cap"	3.4(d)
"Approval Milestones"	9.2(c)
"Arbitration"	17.1(b)
"Arbitration Draft"	5.3(b)(i)
"Arbitrators"	5.3(b)(ii)
"Breach Notice"	16.4(b)
"Caribou"	1.10
[***]	[***]
"CDA"	13.1(b)
"Challenge"	16.5
"Challenged Patent Right"	16.5
"Claim"	14.1(a)
[***]	[***]
"Co-Chairperson"	2.2(a)
"Co-Co Agreement"	5.1(e)(i)
"Collaboration Dispute"	17.1(b)
"Collaboration Reversion IP"	16.7(c)(ii)
"Confidential Information"	13.1(a)
"Consultation Party"	10.2(d)(i)
"CRISPR-Cas Materials"	1.21
"Damages"	14.1(a)
"Development Milestones"	9.2(c)
"Disclosing Party"	13.1(a)
"Discontinuation Notice"	16.6(a)
"Discontinuation Period"	16.6(b)
"Draft"	4.1(a)
"Drafted Expired Target"	4.1(a)(iv)(5)
[***]	4.1(a)(i)(1)
[***]	4.1(a)(i)(2)(c)
"Effective Date"	Preamble
[***]	[***]
"Force Majeure"	Article 15

Term	Section Reference
"Form of Co-Co Agreement"	5.3(a)
"Funding Support Payment"	3.4(d)
"In-Licensed Reversion IP"	16.7(c)(vi)
"Indemnified Party"	14.2(a)
"Indemnifying Party"	14.2(a)
[***]	5.1(e)(iii)
"Intellia"	Preamble
"Intellia Competing Program"	12.7(d)
"Intellia Cost Report"	4.5(b)(i)
"Intellia Evaluation Target"	4.1(a)(v)(1)
"Intellia Indemnitees"	14.1(b)
[***]	5.2(a)
"Intellia Minimum Active Program Right"	5.1(a)(iii)
"Intellia Option"	5.2(a)
"Intellia Option Exercise Notice"	5.2(c)(i)
"Intellia Option Period"	5.2(c)(i)
"Intellia Platform In-License"	7.3(c)
[***]	1.64(b)
"JSC"	2.2(a)
"Lead Litigation Party"	10.4(b)
"Liver Target Pool"	4.1
"Materials"	7.7(a)
"New Intellia Platform License"	7.3(d)
"Non-Liver Target Nomination Meeting"	4.2(a)(i)(2)(a)
[***]	1.24
"Opening Brief"	17.1(b)(iv)
"Option Period"	5.1(c)
"Party" and "Parties"	Preamble
"Permitted Target Development Overage"	4.5(c)
"Permitted Technology Development Overage"	3.4(e)
"Periodic Liver Target Pool Cap"	4.1(a)(ii)(1)
"Product Infringement"	10.4(a)
"Product R&D Program Contributed Technology"	1.103(c)
"Product Term"	16.1
[***]	4.1(a)(i)(1)
"Receiving Party"	13.1(a)
"Redacted Agreement"	13.5(d)
"Regeneron"	Preamble
"Regeneron Background Reversion IP"	16.7(c)(ii)
"Regeneron Evaluation Target"	4.1

Term	Section Reference
"Regeneron Indemnitees"	14.1(a)
[***]	5.1(c)
"Regeneron Option"	5.1(c)
"Regeneron Option Exercise Notice"	5.1(e)(i)
"Regeneron Option Period"	5.1(e)(i)
[***]	4.1(a)
"Regeneron Specific Third Party Payments"	7.3(e)
"Regeneron Target Cap"	4.2
"Regeneron Target Evaluation Program Contributed Technology"	1.103(b)
"Regulatory Exclusivity"	9.7
"Rejection Period"	8.2(b)
"Response Brief"	17.1(b)(v)
"Responsible Party"	10.2(d)(i)
"Reversion Field"	16.7(c)(i)
"Reversion IP"	16.7(c)(i)
"Reversion License"	16.7(c)
"Reversion Products"	16.7(c)(i)
"Royalties"	9.3(a)
"Royalty Term"	9.7
"SEC"	13.5(d)
[***]	[***]
"Target Draft Period"	4.1(a)
"Target Selection Notice"	4.2(a)(i)
"Target Selection Period"	4.2(a)(i)
"Target Profile"	4.3(a)
[***]	[***]
"Technology Collaboration Contributed Technology"	1.103(a)
"Technology Cost Reconciliation Report"	3.4(c)
"Technology Plan Cost Report"	3.4(b)
"Term"	16.1
"Terminated Regeneron Target"	16.7
"Termination Business Plan"	16.6(c)
"Termination for Suspension Notice"	16.6(c)
"Third Party Acquisition"	12.7(d)
[***]	[***]

ARTICLE 2
AGREEMENT OVERVIEW AND GOVERNANCE

2.1 Agreement Overview. The Parties intend and have agreed to undertake a collaboration under this Agreement consisting, in general, of the following major components:

(a) the Technology Collaboration consisting of a collaborative research program related to CRISPR-Cas technology, as more particularly described in ARTICLE 3, pursuant to which each Party will perform certain activities as set forth in the Technology Collaboration Plan [***], in each case as more particularly described herein;

(b) the Regeneron Target Evaluation Programs consisting of Regeneron Evaluation Target-specific research activities related to Regeneron's preliminary evaluation of a Liver Target for Regeneron's potential selection as a Regeneron Target, as more particularly described in Section 4.1, pursuant to which each Party will perform certain activities as set forth in the Regeneron Target Evaluation Plans, Regeneron will bear the Regeneron Allocated Regeneron Target Evaluation Plan Costs and Intellia will bear the Intellia Allocated Regeneron Target Evaluation Plan Costs;

(c) the Intellia Target Evaluation Programs consisting of Intellia Liver Target-specific research activities related to Intellia's preliminary evaluation of such Liver Target, as more particularly described in Section 4.1, pursuant to which each Party will perform certain activities as set forth in the Intellia Target Evaluation Plans a [***];

(d) the Product R&D Programs consisting of Regeneron Target-specific research and development activities related to the development of Regeneron Products Directed to such Regeneron Targets, as more particularly described in ARTICLE 4, pursuant to which each Party will perform certain activities as set forth in the Product R&D Plans [***], and Intellia will grant Regeneron exclusive licenses to research, develop, make, have made, use, sell, offer for sale and import Regeneron Products, in each case as more particularly described herein; and

(e) the option for each Party to enter into a [***] cost and profit arrangement for certain Regeneron Products or Intellia CPs as further described herein.

2.2 Joint Steering Committee.

(a) Formation, Composition and Membership. Promptly after the Effective Date, the Parties will establish a joint steering committee ("JSC"), which shall consist of [***] senior representatives appointed by Regeneron [***] and [***] senior representatives appointed by Intellia [***]; provided, that the Parties may agree to increase or decrease the number of equal representatives from each Party. Each Party may replace its JSC members upon written notice to the other Party (which may be via email); provided, that such replacement is a senior representative of such Party, or is otherwise reasonably acceptable to the other Party. Each Party will appoint one of its representatives to serve as a "Co-Chairperson" of the JSC and each Party may change its designated Co-Chairperson from time to time upon written notice to the other Party.

(b) Decision Making. The JSC shall have the right to determine matters that are within the scope of the JSC (as set forth in Section 2.2(d)) or are otherwise expressly allocated to the JSC as set forth in this Agreement. [***]. The Parties shall cause their respective representatives on the JSC to use their good faith efforts to resolve all matters presented to them as expeditiously as possible. The representatives of each Party shall have collectively one (1) vote on behalf of such Party; provided, that no such vote taken at a meeting shall be valid unless a representative of each Party is present and participating in the vote. Disputes at the JSC shall be resolved as follows:

(i) In the event that the JSC, after a period of [***] days from the date a matter is submitted to it for decision (including if the Parties are unable to agree on a Technology Collaboration Plan (or amendment thereto), Regeneron Target Evaluation Plan (or amendment thereto), Intellia Target Evaluation Plan (or amendment thereto), Product R&D Plan (or amendment thereto), or any other matter that must be resolved by the JSC), is unable to make a decision [***], either Party may require that the matter be submitted to the Executive Officers for a joint decision by providing written notice to the other Party formally requesting that the dispute be resolved by the Executive Officers and specifying the nature of the dispute with sufficient specificity to permit adequate consideration by such Executive Officers.

(ii) If the dispute is referred to the Executive Officers, then the Executive Officers shall diligently and in good faith attempt to resolve the referred dispute within [***] days after receiving such written notification or such longer period of time as the Executive Officers may agree in writing. All such referred disputes shall require a joint decision of both Parties' Executive Officers.

(iii) If the Executive Officers cannot resolve such dispute within such [***] days or other agreed period, such dispute will be resolved as follows:

[***]

(5) with respect to all other disputes under the scope of the JSC [***], such disputes will be submitted to the resolution procedures of Section 17.1.

(6) Notwithstanding the foregoing provisions of this Section 2.2(b)(iii), resolution of Legal Disputes shall be governed by Section 17.1(c).

(c) Meetings of the JSC. The first meeting of the JSC shall take place within [***] days after the Effective Date where the JSC will begin discussing the initial strategy and goals for the Technology Collaboration. Thereafter, the JSC shall meet at least [***], and more frequently as either Party may reasonably request, until the later of [***], unless the Parties otherwise agree in writing, at which point the JSC shall be disbanded and any information exchanges that were previously subject to the JSC's oversight shall be handled directly between the Alliance Managers. All JSC meetings may be conducted by telephone, video-conference or in person as determined by the Co-Chairpersons; provided, however, that the JSC shall meet in person at least [***]. Unless otherwise agreed by the Parties, all in-person meetings of the JSC shall be held on an alternating basis between Regeneron's facilities and Intellia's facilities.

Further, each Co-Chairperson shall be entitled to call meetings in addition to the regularly scheduled [***] meetings. The Co-Chairpersons shall coordinate activities to prepare and circulate an agenda in advance of each meeting and prepare and issue [***] minutes of each meeting [***]. With the consent of the other Party (not to be unreasonably withheld, conditioned or delayed), a [***] number of other representatives of a Party may attend any JSC meeting as non-voting observers (provided that such additional representatives are under obligations of confidentiality and non-use applicable to the Confidential Information of the other Party that are at least as stringent as those set forth in Article 13 below). Each Party shall be responsible for all of its own personnel and travel costs and expenses relating to participation in JSC meetings, which costs and expenses, for clarity, shall not be considered Plan Costs.

(d) JSC Duties. The JSC shall:

(i) set the overarching research objectives for the Technology Collaboration and oversee the general strategies and activities undertaken by the Parties under the Technology Collaboration and the Product R&D Programs;

(ii) approve the Technology Collaboration Plan (including the annual budget for each Party to be included therein with costs allocated to the Parties [***]) to conduct the activities under such Technology Collaboration Plan;

(iii) approve each Regeneron Target Evaluation Plan (including the annual budget (based on Quarters) for each Party to be included therein) to conduct the activities under such Regeneron Target Evaluation Plan;

(iv) approve each Intellia Target Evaluation Plan to conduct the activities under such Intellia Target Evaluation Plan;

(v) review material results arising from any Additional Evaluation Activities;

(vi) approve each Target Profile and Product R&D Plan (including the annual budget (based on Quarters) for each Party to be included therein) to conduct the activities under such Product R&D Plan;

(vii) discuss which Intellia Materials and other Intellia Know-how may be useful for the conduct of the Technology Collaboration or Product R&D Program and facilitate the transfer of such materials and information to Regeneron pursuant to Section 2.2(f);

(viii) discuss which Regeneron Contributed Technology may be useful for the conduct of the Technology Collaboration, Regeneron Target Evaluation Program, Intellia Target Evaluation Program or Product R&D Program, [***] facilitate the transfer of such materials and Know-How to Intellia;

(ix) exchange and review scientific information and data from activities being conducted under, and the then-current progress of, the Technology Collaboration Plan, each Regeneron Target Evaluation Plan, each Intellia Target Evaluation Plan, each Product R&D Plan, and Intellia's research and development of Intellia Liver Products [***], and establish processes for the exchange of information relating to such activities;

(x) discuss manufacturing process development and scale-up activities for manufacture of Regeneron Products in accordance with Article 8;

(xi) discuss manufacturing of Regeneron Products, [***];

(xii) discuss potential Non-Liver Targets to be nominated as a Regeneron Target and included in the Product R&D Program;

(xiii) review and approve publications in accordance with Section 13.4(a);

(xiv) consider and act upon such other matters as specified in this Agreement or as otherwise agreed to by the Parties;

(xv) make any such decisions as are expressly allocated to the JSC under this Agreement; and

(xvi) at the request of either Party's representatives to the JSC, conduct ad hoc meetings in addition to the [***] meetings of the JSC as reasonably necessary to coordinate and expedite all decisions made by the JSC.

(e) Sub-Committees and Working Groups. The JSC may establish sub-committees or working groups to interact on a more frequent basis on specific projects and tasks assigned to them by the JSC (e.g., a sub-committee for the Technology Collaboration, a sub-committee for the Product R&D Program and a sub-committee for manufacturing); provided, that the authority of such sub-committees shall not expand beyond the authority of the JSC. Any such sub-committees shall have no decision making authority, but shall make recommendations to the JSC for the JSC's review and approvals.

(f) Information Sharing. Each Party will share information with the JSC in a timely manner concerning the progress of the Plans and, in any event, at least [***] days prior to each regular [***] meeting of the JSC, and in connection therewith, each Party will provide to the JSC a written report (in electronic form) [***]. In addition, and without limiting the foregoing, Regeneron will share information with the JSC in a timely manner concerning any Additional Evaluation Activities and, in any event, at least [***] days prior to each regular [***] meeting of the JSC, and in connection therewith, Regeneron will provide to the JSC a written report (in electronic form) [***]. In addition, and without limiting the foregoing, with respect to Intellia's research and development of Intellia Liver Products, Intellia will share information

with the JSC [***] per Contract Year, up to the point of [***], and, in any event, at least [***] days prior to [***] such [***] meeting of the JSC [***], and in connection therewith, Intellia will provide to the JSC a written report (in electronic form) [***].

2.3 Alliance Management. Within [***] days after the Effective Date, each of Intellia and Regeneron shall appoint a senior representative [***] to act as its alliance manager hereunder, and each Party may replace such person upon notice (which may be via email) to the other Party (each such person, an "Alliance Manager", and collectively, the "Alliance Managers"). Each Alliance Manager shall be charged with creating and maintaining a collaborative work environment between the Parties. Each Alliance Manager will also be responsible for acting as a single-point of communication for seeking consensus both internally within the respective Party's organization and with the other Party's organization, including facilitating review of external corporate communications. The Alliance Managers shall continue to serve in their role until [***].

2.4 Authority. Each Party shall retain the rights, powers and discretion granted to it under this Agreement and each committee under Section 2.2 shall have solely the powers expressly assigned to it in Section 2.2 or elsewhere in this Agreement, and no committee, including the JSC, shall have any power to amend, modify or waive compliance with this Agreement.

ARTICLE 3
TECHNOLOGY COLLABORATION

3.1 Technology Collaboration Plan. The Technology Collaboration shall be conducted in accordance with a Technology Collaboration Plan that will be approved by the JSC. The Technology Collaboration Plan shall set forth the overall strategy and objectives for the Technology Collaboration, as well as each Party's activities to be conducted under the Technology Collaboration, and an annual budget (based on Quarters) [***] for the Technology Collaboration activities.

(a) Scope. The Parties generally anticipate that the Technology Collaboration Plan will include the following:

[***]

(b) Preparation and Amendment of Plan. Within [***] days (or any extension thereof mutually agreed in writing by the Parties) after the Effective Date, the Parties will jointly prepare the initial Technology Collaboration Plan and present such plan to the JSC for review and approval. Thereafter, either Party may propose at any meeting of the JSC amendments to the Technology Collaboration Plan; provided, that, at a minimum, no later than [***] days prior to the start of a given Contract Year during the Technology Collaboration Term, the Parties shall update the Technology Collaboration Plan and propose a budget (based on Quarters) for the Technology Collaboration for the upcoming Contract Year for the JSC's review and approval.

3.2 Technology Collaboration Performance.

(a) Efforts. Each Party shall use Commercially Reasonable Efforts to perform its activities under the Technology Collaboration Plan within the timelines set forth in the Technology Collaboration Plan and to achieve the goals and deliverables set forth in the Technology Collaboration Plan. Each Party will have day-to-day operational control over those activities delegated to such Party in the Technology Collaboration Plan.

(b) Costs. [***]

(c) Reporting. Each Party shall report the progress and results of its activities under the Technology Collaboration Plan to the JSC in accordance with Section 2.2(f). For clarity, all such reports shall be considered the Confidential Information of both Parties.

3.3 Technology Collaboration Term.

(a) Extensions. Regeneron may, by written notice to Intellia given at any time at least [***] months prior to the end of the Technology Collaboration Term, extend the Technology Collaboration Term one-time for an additional twenty-four (24) months, such that it will end on the eighth (8th) anniversary of the Effective Date (rather than the sixth (6th) anniversary of the Effective Date). If Regeneron delivers such written extension notice, then on or prior to the [***], Regeneron shall pay to Intellia twenty-five million dollars ($25,000,000); provided that Intellia has issued to a Regeneron an invoice for such amount (which invoice may be paid at any time on or prior to the [***]).

(b) End of Technology Collaboration. From and after the expiration or termination of the Technology Collaboration Term, (i) no further activities shall be conducted by the Parties under the Technology Collaboration Plan or otherwise with respect to the Technology Collaboration, (ii) the licenses set forth in Section 3.5 shall automatically terminate and (iii) no additional amount shall be payable pursuant to Section3.4(a), if any, other than amounts which had become due and payable prior to the effective date of such expiration or termination and that remain unpaid as of such date.

3.4 Technology Collaboration Funding.

(a) Sharing of Costs. The Parties shall [***] the Plan Costs incurred by each of the Parties in the performance of the Technology Collaboration in accordance with the Technology Collaboration Plan. Such costs shall be reported and paid in accordance with this Section 3.4.

(b) Reporting of Costs. Within [***] days after the end of each Quarter, each Party shall provide the other Party with a detailed, activity-based statement of its Plan Costs incurred in such Quarter for the performance of the Technology Collaboration, [***] (each, a "Technology Plan Cost Report"), in each case to the extent incurred in such Quarter

(c) Reconciliation. Within [***] days after the end of each Quarter (and subject to Regeneron's receipt of Intellia's Technology Plan Cost Report pursuant to Section 3.4(b)), Regeneron will provide Intellia with a written report (the "Technology Cost Reconciliation Report") setting forth the calculations of aggregate Plan Costs for such Quarter, each Party's share of such aggregate Plan Costs and the net payment due from one Party to the other Party (subject to Sections 3.4(d) and 3.4(e)). Any undisputed net payment owed from one Party to the other Party in order for the Parties to [***] all such Plan Costs shall be paid within [***] days following receipt of such Technology Cost Reconciliation Report and an invoice therefor (i.e., assuming timely receipt of the Technology Plan Cost Report and the Technology Cost Reconciliation Report, no later than [***] days after the end of the Quarter); provided, that if a Party disputes an amount provided in a Technology Plan Cost Report or Technology Cost Reconciliation Report and such dispute is not resolved within [***] days, then the provisions of Section 9.11 shall apply to resolve such dispute. If requested by Regeneron or Intellia, any invoices [***] shall be promptly provided.

(d) Funding Support Payments and Offsets. In the event that Intellia's aggregate share of Plan Costs [***] pursuant to this Section 3.4 exceeds the [***] in a given Contract Year, with such pro-ration based upon the number of days in such Contract Year as compared to a full calendar year (the "Annual Technology Cost Cap"), then [***] with respect to any additional Plan Costs that Intellia actually incurs during such Contract Year that exceed the Annual Technology Cost Cap, [***].

(e) Budgets and Overages. Each Party shall use Commercially Reasonable Efforts to ensure that the actual costs associated with the performance of activities allocated to it in the Technology Collaboration Plan for a given Contract Year do not exceed [***] of the budgeted costs allocated to such Party for such Contract Year as set forth in the budget. Costs for the performance of all activities described in the Technology Collaboration Plan that exceed the estimated allocated costs therefor as set forth in the budget by up to [***] shall be referred to herein as the "Permitted Technology Development Overage" and such costs shall be included as Plan Costs. If either Party reasonably believes that the actual costs in relation to its Technology Collaboration activities in a Contract Year will exceed the allocated budget in the Technology Collaboration Plan (plus the Permitted Technology Development Overage) for all such activities during such Contract Year, such Party may request the JSC to review and approve such activities and the costs thereof before undertaking such excess cost. [***]

(f) Recording of Costs; Reports. All Plan Costs pursuant to this Section 3.4 shall be recorded and reported consistent with GAAP, consistently applied. Each Party shall keep records associated with Plan Costs incurred through performance of the Technology Collaboration strictly separate from records associated with Plan Costs incurred through performance of the Regeneron Target Evaluation Programs, Intellia Target Evaluation Programs and Product R&D Programs. Unless otherwise agreed by the JSC, the financial data in the Technology Plan Cost Report will include calculations in local currency and United States Dollars (converted into United States Dollars in accordance with Section 9.9). The JSC shall

approve the form of any necessary documentation relating to any Plan Cost payments hereunder in connection with the Technology Collaboration so as to afford the Parties appropriate accounting treatment in relation to any of the transactions or payments contemplated hereunder.

3.5 Technology Collaboration License Grants.

(a) Grant by Intellia. Intellia shall grant, and hereby grants, to Regeneron a non-exclusive, worldwide license under the Intellia Intellectual Property solely to perform the activities designated to Regeneron under the Technology Collaboration Plan during the Technology Collaboration Term. Regeneron may sublicense the license granted under this Section 3.5(a) (i) only in accordance with Section 7.2(c) and as necessary to enable permitted subcontractors under, and in accordance with, Section 7.2(b) to perform certain of Regeneron's obligations under the Technology Collaboration Plan and (ii) subject to obtaining Intellia's prior written consent, which consent will not be unreasonably withheld, conditioned or delayed, and which consent will be deemed to have already been granted to the extent such subcontracted activity (including the identity of the subcontractor) is specified in the Technology Collaboration Plan.

(b) Grant by Regeneron. Regeneron shall grant, and hereby grants, to Intellia a non-exclusive, worldwide license under Regeneron Product Inventions, Regeneron Materials Improvements and that portion of the Regeneron Contributed IP that is Technology Collaboration Contributed Technology solely to perform the activities designated to Intellia under the Technology Collaboration Plan during the Technology Collaboration Term. Intellia may sublicense the license granted under this Section 3.5(b) (i) only in accordance with Section 7.2(c) and as necessary to enable permitted subcontractors under, and in accordance with, Section 7.2(b) to perform certain of Intellia's obligations under the Technology Collaboration Plan and (ii) subject to obtaining Regeneron's prior written consent, which consent will not be unreasonably withheld, conditioned or delayed, and which consent will be deemed to have already been granted to the extent such subcontracted activity (including the identity of the subcontractor) is specified in the Technology Collaboration Plan.

(c) Third Party Payments. If a Party (or any of its Affiliates) would owe any payments (including royalties, milestones or other amounts) for the use of any Intellectual Property it contributes to, or licenses in connection with, the Technology Collaboration, then any and all such payments shall be paid by such Party and shall not be considered Plan Costs.

3.6 Freedom to Operate License Grant by Regeneron. Subject to the terms and conditions of this Agreement (including Section 6.3 and Section 12.7), Regeneron shall grant, and hereby grants, to Intellia a non-exclusive, worldwide, sublicensable through multiple tiers (in accordance with Section 7.2(c)), provided that such sublicense shall not require the prior written consent of Regeneron), royalty-free and fully paid-up (subject to Section 7.12) license under the Regeneron FTO IP solely to the extent necessary (and with respect to any Patent Rights within the Regeneron FTO IP, on a claim-by-claim basis) to use, practice and otherwise exploit the applicable [***] Invention (and any improvements or derivatives but then, for clarity, only for

the practice of such original [***] Invention or such improvements or derivatives of such original [***] Invention and not any other technology or use) for the research, development, making, having made, using, selling, offering for sale and importing of CPs and products or services incorporating or based upon such CPs (but excluding, for clarity, Regeneron Products).

ARTICLE 4
TARGET NOMINATION, SELECTION AND PROGRAMS

4.1 [***]; Regeneron Liver Target Pool and Intellia Liver Targets. The Parties intend to create a pool of Liver Targets that are not Intellia Liver Targets from which Regeneron shall have the right to select Liver Targets as Regeneron Targets in accordance with Section 4.2 (such pool being referred to in this Agreement as the "Liver Target Pool" and each Liver Target that is a member of the Liver Target Pool, a "Regeneron Evaluation Target"). In addition, the Parties also intend to allow Intellia to select Liver Targets to be included as Intellia Liver Targets in accordance with this Section 4.1 for (i) possible inclusion under the Intellia Target Evaluation Program pursuant to Section 4.1(a)(v) and (ii) development by Intellia pursuant to Section 5.1(a).

(a) Nomination of Intellia Liver Targets and Regeneron Evaluation Targets. [***]. During the period commencing on the Effective Date until the sixth (6th) anniversary of the Effective Date (or the eighth (8th) anniversary of the Effective Date in the event that the Regeneron elects to extend the Technology Collaboration Term pursuant to Section 3.3(a) (the "Target Draft Period"), the Parties will conduct a draft process [***], as further contemplated by Section 4.1(a)(i) below, through which Available Liver Targets are nominated as Regeneron Evaluation Targets or Intellia Liver Targets (each, a "Draft"). Each Draft will be conducted by telephone, video-conference or in person as determined by the Co-Chairpersons of the JSC and under the oversight of the JSC. Decisions of the JSC in relation to any Draft matter will be made by mutual agreement of both Parties' JSC representatives.

(i) Draft Process.

[***]

(ii) Size of Liver Target Pool.

(1) During the Target Draft Period, there may be up to [***] Regeneron Evaluation Targets in the Liver Target Pool at any given time [***] (such maximum number of Regeneron Evaluation Targets that may be included in the Liver Target Pool at any given time under this Section 4.1(a)(ii)(1), the "Periodic Liver Target Pool Cap").

(2) No more than an aggregate total of [***] Regeneron Evaluation Targets may ever be included in the Liver Target Pool within the Target Draft Period (the "Aggregate Liver Target Pool Cap").

(iii) Regeneron Target Evaluation Program.

(1) Regeneron Target Evaluation Programs. The Parties' objective under each Regeneron Target Evaluation Program is to enable Regeneron to evaluate the Regeneron Evaluation Target as a candidate for potential selection as a Regeneron Target under this [***], to aid in Regeneron's evaluation of the applicable Regeneron Evaluation Target as a candidate for potential selection as a Regeneron Target under this Agreement. Each Regeneron Target Evaluation Program for a Regeneron Evaluation Target shall be conducted in accordance with a Regeneron Target Evaluation Plan for such Regeneron Evaluation Target that will be prepared and approved in accordance with Section 4.1(a)(iii)(2) and which will be consistent with the activities and costs outlined in Schedule 1.119. The Regeneron Target Evaluation Plan shall set forth (A) the overall strategy and objectives for the Regeneron Target Evaluation Program for such Regeneron Evaluation Target, including technical requirements and specifications of Intellia deliverables, (B) each Party's specific activities to be conducted under such Regeneron Target Evaluation Plan, and (C) an annual budget (based on Quarters) [***] for the Regeneron Target Evaluation Program activities.

(2) Preparation and Amendment of Plan. Within [***] days (or such extension thereof mutually agreed in writing by the Parties) after a given Liver Target becomes a Regeneron Evaluation Target pursuant to this Agreement, the Parties will jointly prepare the initial Regeneron Target Evaluation Plan for such Regeneron Evaluation Target and present such plan to the JSC for review and approval [***]. Thereafter, during the applicable Contract Year, either Party may propose at any meeting of the JSC amendments to the Regeneron Target Evaluation Plan for such Regeneron Evaluation Target; provided, that, at a minimum, no later than [***] days prior to the start of a given Contract Year during which Regeneron Target Evaluation Program activities will continue to be conducted for a given Regeneron Evaluation Target, Regeneron (with input from Intellia) shall propose an updated Regeneron Target Evaluation Plan and corresponding updated budget for such Regeneron Target Evaluation Program for the upcoming Contract Year for the JSC's review and approval; provided, however, that if the JSC does not approve such Regeneron Target Evaluation Plan and budget for such upcoming Contract Year, then the dispute shall be resolved in accordance with Section 2.2(b).

(3) Regeneron Target Evaluation Program Performance.

(a) Efforts. Each Party shall use Commercially Reasonable Efforts, during the Regeneron Target Evaluation Program Term for a given Regeneron Evaluation Target, to perform the activities allocated to such Party under the Regeneron Target Evaluation Plans within the timelines set forth in the Regeneron Target Evaluation Plans and to achieve the goals and deliverables set forth in the Regeneron Target Evaluation Plans. Each Party will have day-to-day operational control over those activities delegated to it in the Regeneron Target Evaluation Plan. [***] In all cases, if requested by Regeneron, Intellia shall use Commercially Reasonable Efforts to assist Regeneron with the performance of Regeneron's activities under the Regeneron Target Evaluation Plan, including the transition of such activities to Regeneron[***].

(b) Additional Regeneron Target Evaluation Activities by Regeneron. Without limiting the activities to be performed under the Regeneron Target Evaluation Plan, Regeneron shall have the right to conduct additional activities, including research activities, in its discretion and at its cost, solely to evaluate the Regeneron Evaluation Targets as a candidate for potential selection as a Regeneron Target under this Agreement (the "Additional Evaluation Activities"), even if such activities are not included in the Regeneron Target Evaluation Plan, provided that any such Additional Evaluations Activities conducted or to be conducted by or on behalf of Regeneron shall be reported to the JSC as set forth in Section 2.2(f).

(c) Regeneron Target Evaluation License Grant by Intellia. Without limitation to the licenses granted pursuant to Section 6.3, Intellia shall grant, and hereby grants, to Regeneron a non-exclusive, worldwide license under the Intellia Intellectual Property solely to the extent necessary to perform the activities designated to Regeneron under each Regeneron Target Evaluation Plan during the applicable Regeneron Target Evaluation Program Term and to perform the Additional Evaluation Activities for a given Regeneron Evaluation Target during the applicable Regeneron Target Evaluation Program Term. Regeneron may sublicense the license granted under this Section 4.1(a)(iii)(3)(c) only in accordance with Section 7.2(c) and only as necessary to enable permitted subcontractors under, and in accordance with, Section 7.2(b) (i) to perform certain of Regeneron's obligations under the applicable Regeneron Target Evaluation Plan or (ii) to perform the Additional Evaluation Activities.

(d) Regeneron Target Evaluation License Grant by Regeneron. Regeneron shall grant, and hereby grants, to Intellia a non-exclusive, worldwide license under that portion of the Regeneron Contributed IP that is Regeneron Target Evaluation Program Contributed Technology, Regeneron Product Inventions, and Regeneron Materials Improvements, solely to the extent necessary to perform the activities designated to Intellia under each Regeneron Target Evaluation Plan during the applicable Regeneron Target Evaluation Program Term. Intellia may sublicense the license granted under this Section 4.1(a)(iii)(3)(d) only in accordance with Section 7.2(c) and only as necessary to enable permitted subcontractors under, and in accordance with, Section 7.2(b) to perform certain of Intellia's obligations under the applicable Regeneron Target Evaluation Plan.

(e) Costs. Intellia Allocated Regeneron Target Evaluation Plan Costs and Regeneron Allocated Regeneron Target Evaluation Plan Costs incurred in the conduct of the Regeneron Target Evaluation Program will be borne by Intellia and Regeneron, respectively, and paid in accordance with Section 4.5 to the extent applicable.

(f) Reporting. Each Party shall report the progress and results of its activities under any Regeneron Target Evaluation Plan to the JSC in accordance with Section 2.2(f). For clarity, all Materials and Intellectual Property contained or referenced therein shall be subject to the ownership provisions of this Agreement.

(g) Termination of a Regeneron Target Evaluation Program Term for a Given Regeneron Evaluation Target. In the event of an early termination of a Regeneron Target Evaluation Program by way of written notice from Regeneron to Intellia [***], Regeneron shall promptly pay to Intellia for all Regeneron Allocated Regeneron Target Evaluation Plan Costs, if any, accrued by or owed to Intellia with respect to such terminated Regeneron Target Evaluation Program as of the effective date of such expiration or termination, including all applicable non-cancelable financial commitments made by Intellia to Third Parties prior to Regeneron's notice of termination that were in accordance with the then-current Regeneron Target Evaluation Plan [***].

(h) Third Party Payments. Subject to Section 7.3 and Section 7.12 and the allocation of the applicable Third Party payments described therein, if a Party (or any of its Affiliates) would owe any payments (including royalties, milestones or other amounts) for the use of any Intellectual Property it contributes to, or licenses in connection with, the Regeneron Target Evaluation Program, then any and all such payments shall be paid by such Party and not included in Plan Costs.

(iv) Removal of Regeneron Evaluation Targets from the Liver Target Pool.

(1) At any time during the Target Selection Period, Regeneron may select any Regeneron Evaluation Target from the Liver Target Pool as a Regeneron Target in accordance with Section 4.2, and in such case, such Regeneron Evaluation Target shall no longer be included in the Liver Target Pool. In addition, at any time during the Target Selection Period, Regeneron may notify Intellia in writing that it is removing a given Regeneron Evaluation Target from the Liver Target Pool, and in such case, such Regeneron Evaluation Target shall no longer be included in the Liver Target Pool [***] and Drafted Expired Target. In addition, after the end of Target Selection Period [***], (A) any Regeneron Evaluation Target that is, at such time, not selected as Regeneron Target shall become a Drafted Expired Target and (B) any then current [***] Drafted Expired Targets shall continue to be a Drafted Expired Target [***].

(2) If Regeneron does not select a given Regeneron Evaluation Target as a Regeneron Target within [***] days after Regeneron determines that such Regeneron Evaluation Target qualifies as a Lead Candidate, then such Regeneron Evaluation Target shall no longer be included in the Liver Target Pool and shall become a Declined Target.

(3) If Regeneron does not select a given Regeneron Evaluation Target as a Regeneron Target within [***] shall thereafter constitute [***] a Drafted Expired Target.

(4) If Regeneron seeks to [***] shall automatically constitute [***] a Drafted Expired Target.

(5) As used in this Agreement, "Drafted Expired Target" shall mean each Regeneron Evaluation Target that is specifically designated as, or specifically becomes, a Drafted Expired Target pursuant to Section 4.1(a)(iv)(1), 4.1(a)(iv)(3) or 4.1(a)(iv)(4). If a given Drafted Expired Target ever subsequently becomes an Intellia Liver Target or a Regeneron Evaluation Target through the draft process under Section 4.1(a)(i) then it shall cease to be a Drafted Expired Target.

(v) Intellia Target Evaluation Program.

(1) Intellia Target Evaluation Programs. During the Target Selection Period [***], Intellia shall have the right, upon written notice to Regeneron, to select Intellia Liver Targets for inclusion in the Intellia Target Evaluation Program; provided, however that Intellia shall not be entitled to select more than [***] Intellia Liver Targets for inclusion in the Intellia Target Evaluation Programs [***] (each such Intellia Liver Target included in an Intellia Target Evaluation Program, an "Intellia Evaluation Target"); provided that, notwithstanding anything to the contrary contained herein, there shall be no more than [***] Intellia Target Evaluation Programs at any given time. The Parties' objective under each Intellia Target Evaluation Program is to have Regeneron perform certain specific activities to be agreed to by the Parties and specified in the applicable Intellia Target Evaluation Plan as set forth in Section 4.1(a)(v)(2) [***]. Each Intellia Target Evaluation Program for an Intellia Evaluation Target shall be conducted in accordance with an Intellia Target Evaluation Plan for such Intellia Evaluation Target that will be prepared and approved in accordance with Section 4.1(a)(v)(2). For clarity, not all Intellia Liver Targets will be included under an Intellia Target Evaluation Program.

(2) Preparation and Amendment of Plan. Within [***] days (or such extension thereof mutually agreed in writing by the Parties) after Intellia selects a given Intellia Liver Target as an Intellia Evaluation Target pursuant to Section 4.1(a)(v)(1), the Parties will discuss (x) relevant mouse model for the applicable Intellia Evaluation Target and (y) up to three (3) queries that can reasonably be performed by Regeneron on existing and available genotypes/data in the Regeneron Genomics Center with respect to the Intellia Evaluation Target [***].

(3) Intellia Target Evaluation Program Performance.

(a) Efforts. Regeneron shall use Commercially Reasonable Efforts, during the Intellia Target Evaluation Program Term for a given Intellia Evaluation Target, to perform the activities allocated to Regeneron under the Intellia Target Evaluation Plans. Regeneron will have day-to-day operational control over those activities delegated to it in the Intellia Target Evaluation Plan. [***]

(b) Intellia Target Evaluation License Grant by Intellia. Without limitation to the licenses granted pursuant to Section 6.3, Intellia shall grant, and hereby grants, to Regeneron a non-exclusive, worldwide license under the Intellia Intellectual Property solely to the extent necessary to perform the activities designated to Regeneron under each Intellia Target Evaluation Plan during the applicable Intellia Target Evaluation Program Term. Regeneron may sublicense the license granted under this Section 4.1(a)(v)(3)(b) only in accordance with Section 7.2(c) and only as necessary to enable permitted subcontractors under, and in accordance with, Section 7.2(b) to perform certain of Regeneron's obligations under the applicable Intellia Target Evaluation Plan.

(c) Intellia Target Evaluation License Grant by Regeneron. With respect to the Intellia Evaluation Target under a given Intellia Target Evaluation Program, Regeneron shall grant, and hereby grants, to Intellia a non-exclusive, worldwide, sublicensable through multiple tiers (in accordance with Section 7.2(c)) license under Regeneron's interest in any Regeneron Mice models (to the extent Controlled by Regeneron) used in, [***] such Intellia Target Evaluation Program to research, develop, make, have made, use, sell, offer for sale and import Intellia Liver Products Directed to such Intellia Evaluation Target for any and all uses in the Field.

(d) Costs. Costs incurred in the conduct of the Intellia Target Evaluation Program will be borne [***].

(e) Reporting. Each Party shall report the progress and results of its activities under any Intellia Target Evaluation Plan to the JSC in accordance with Section 2.2(f). For clarity, all Materials and Intellectual Property contained or referenced therein shall be subject to the ownership provisions of this Agreement.

(f) Third Party Payments. Subject to Section 7.12 and the allocation of the applicable Third Party payments described therein, if a Party (or any of its Affiliates) would owe any payments (including royalties, milestones or other amounts) for the use of any Intellectual Property it contributes to, or licenses in connection with, the Intellia Target Evaluation Program, then any and all such payments shall be paid by [***].

[***]

4.2 Selection of Regeneron Targets. Regeneron will have the right, from time to time in accordance with this Section 4.2, to select up to ten (10) Targets at any given time (the "Regeneron Target Cap") to become Regeneron Targets; provided, that (a) if Regeneron desires to select a given Liver Target as a Regeneron Target, Regeneron may only select Liver Targets from the Liver Target Pool as Regeneron Targets, and (b) [***] no more than five (5) of such Targets at any given time under Product R&D Programs may be Non-Liver Targets, [***] Notwithstanding the foregoing, the Parties agree and acknowledge that the Regeneron Target Cap is subject to increase pursuant to Section 4.2(c). Upon selection of a Regeneron Target by Regeneron pursuant to this Section 4.2, such Regeneron Target shall be included in the Product R&D Program and Regeneron Products will be developed for such Regeneron Target (on a Regeneron Target-by-Regeneron Target basis) under a Product R&D Plan for such Regeneron Target (which Product R&D Plan shall be prepared in accordance with Section 4.3(d)). [***].

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

(a) Nomination and Selection of Regeneron Targets.

(i) Subject to the Regeneron Target Cap and associated payment of any replacement fees required pursuant to Section 4.2(b) below, as applicable, at any time during the period from the Effective Date (x) for Regeneron Liver Targets (i.e., in the case of clause (A) below), until [***] the Target Draft Period and (y) for Non-Liver Targets (i.e., in the case of clause (B) below), until [***] the Target Draft Period (as applicable, the "Target Selection Period"), and without limiting Regeneron's substitution rights under Section 4.2(b), Regeneron may nominate as Regeneron Targets (A) any Regeneron Evaluation Target from the Liver Target Pool [***] or (B) any Non-Liver Target, in either case by providing written notice thereof to Intellia (the "Target Selection Notice"). [***]

(1) Liver Targets. Any Regeneron Evaluation Target identified for selection in a Target Selection Notice shall immediately become a Regeneron Target.

(2) Non-Liver Targets.

(a) If a Target Selection Notice identifies a Non-Liver Target for selection then, provided such nominated Non-Liver Target is not an Unavailable Target, within [***] days of providing such notice, the Parties will meet to discuss or discuss via teleconference, as agreed by the Parties, the suitability of such nominated Non-Liver Target for future development of CPs (the "Non-Liver Target Nomination Meeting") [***]. Within [***] days after such meeting, Regeneron will provide notice to Intellia indicating whether it desires to include such Non-Liver Target as a Regeneron Target [***]. If Regeneron does not provide notice indicating that it desires to include any such Non-Liver Target as a Regeneron Target within such [***] day period, then Regeneron will be deemed to have determined to not include such Non-Liver Target as a Regeneron Target and such Non-Liver Target shall not be a Regeneron Target.

(b) In the event that a Non-Liver Target is an Unavailable Target, Intellia shall provide written notice to Regeneron indicating such status within [***] days of receiving such nomination from Regeneron. In the event that Regeneron desires to challenge such status, it shall provide notice thereof to Intellia within [***] days of Regeneron receiving such notice from [***]. If such Non-Liver Target is determined to not be an Unavailable Target [***] such Non-Liver Target shall become a Regeneron Target. [***]

(c) In the event that Regeneron nominates a Non-Liver Target pursuant to Section 4.2 and such Non-Liver Target is not an Unavailable Target, but Intellia has already granted a non-exclusive license or an option to obtain a non-exclusive license with respect to such Target, then Intellia shall disclose the same to Regeneron, including the terms and conditions applicable to such license or option, and Regeneron's rights hereunder with

respect to such Non-Liver Target would be subject to such terms and conditions (for so long as such terms and conditions remain in full force and effect) should Regeneron select such Target as a Regeneron Target.

(b) Replacement of Regeneron Target by Regeneron. At any time during the Target Selection Period, Regeneron may notify Intellia in writing if it desires to (i) replace a given Regeneron Target with a Regeneron Evaluation Target from the Liver Target Pool and in such case the original Regeneron Target shall no longer be a Regeneron Target and shall thereafter constitute a Declined Target for purposes of this Agreement, and the new Liver Target selected by Regeneron shall thereafter be a Regeneron Target hereunder and/or (ii) replace a given Regeneron Target with a Non-Liver Target (in which case, the procedures set forth in Section 4.2(a)(i)(2) shall apply) and in such case, if the new Non-Liver Target replaces and becomes a Regeneron Target in accordance with the procedures set forth in Section 4.2(a)(i)(2) then the original Regeneron Target shall no longer be a Regeneron Target and shall thereafter constitute a Declined Target for purposes of this Agreement, and the new Non-Liver Target selected by Regeneron shall thereafter be a Regeneron Target hereunder. Notwithstanding the foregoing, Regeneron shall not have the right to replace a given Regeneron Target pursuant to this Section 4.2(b) if an IND for a Regeneron Product Directed to such Regeneron Target has been filed. For each such substituted Liver Target that becomes a Regeneron Target pursuant to this Section 4.2(b) (i.e., the new Regeneron Target is a Liver Target, regardless of the type of Target that is being replaced by such new Regeneron Target), Regeneron shall pay [***] to Intellia, and for each such substituted Non-Liver Target that becomes a Regeneron Target pursuant to this Section 4.2(b) (i.e., the new Regeneron Target is a Non-Liver Target, regardless of the type of Target that is being replaced by such new Regeneron Target), Regeneron shall pay [***] to Intellia, which payments shall be payable by Regeneron within [***] days following Regeneron's selection of such new Regeneron Target. Regeneron shall have the right to replace (i.e., select as a new Regeneron Target) up to (x) a maximum of [***] Liver Targets pursuant to this Section 4.2(b) and (y) a maximum of [***] Non-Liver Targets pursuant to this Section 4.2(b). In the event that Regeneron replaces a given Regeneron Target pursuant to this Section 4.2(b), then the Parties shall as promptly as practicable wind-down all activities under the Product R&D Plan for such replaced Regeneron Target. [***]

(c) Regeneron Target Cap Increase. In the event that [***], the Regeneron Target Cap shall be increased to [***] for purposes of this Agreement and Regeneron shall have the right to select additional Targets in accordance with this Section 4.2 up to such increased Regeneron Target Cap. In the event that the Regeneron Target Cap is increased [***], Intellia shall be awarded the right to exercise an Intellia Option [***].

4.3 Target Profiles and Product R&D Programs/Plans.

(a) Target Product Profile. Following a Target becoming a Regeneron Target pursuant to Section 4.2, Regeneron will provide Intellia with a desired product profile and technical specifications (each, a "Target Profile"). Such Target Profile shall be discussed at the

JSC and the JSC shall agree on a final Target Profile for such Regeneron Target. Either Party may propose amendments to any given Target Profile to the JSC and, for clarity, decision-making with respect to the initial Target Profile or any such amendments shall be in accordance with Section 2.2(b).

(b) Product R&D Program. The Parties' objective under each Product R&D Program is to discover, research, conduct preclinical development (including manufacturing process development and certain other manufacturing activities), and obtain IND Acceptance for Regeneron Products that are Directed to the applicable Regeneron Target to enable further development and commercialization by Regeneron. Once the Target Profile is approved by the JSC with respect to a given Regeneron Target, the Product R&D Program for such Regeneron Target shall be conducted in accordance with a Product R&D Plan for such Regeneron Target that will be prepared and approved in accordance with Section 4.3(d). The Product R&D Plan shall set forth the overall strategy and objectives for the Product R&D Program for such Regeneron Target, as well as each Party's specific activities to be conducted under such Product R&D Plan, and shall also include an annual budget (based on Quarters) [***] for the Product R&D Program activities. Unless otherwise set forth in a given Product R&D Plan or otherwise determined by the JSC, Intellia shall have primary responsibility for performance of the following components of the Product R&D Plan activities: [***]. The JSC shall allocate additional responsibilities in accordance with the Parties' respective capabilities and capacity; provided, however, that at the determination of Regeneron, Regeneron may [***] terminate the Product R&D Program for such Regeneron Target pursuant to Section 4.4(e)(i) such that Regeneron shall have responsibility for the performance of some or all such activities as determined by Regeneron.

(c) Scope. The Parties generally anticipate that each Product R&D Plan will include, and designate the Party primarily responsible for, the following activities:

(i) Identification, research, development, optimization and validation of a Lead Candidate that is Directed to the Regeneron Target that is the subject of such Product R&D Plan and that meets the Target Profile;

(ii) Conducting in-vitro and initial in-vivo experiments to screen and identify optimal guide RNAs, Cas9 or other endonuclease elements, and delivery systems and vectors;

(iii) Identification, development, optimization and validation of back-up and next generation Regeneron Products that are Directed to such Regeneron Target;

(iv) Developing an initial manufacturing process that would be suitable for scale up for production of GMP materials for toxicology studies and Phase I Trials; and

(v) Following Regeneron's designation of a Lead Candidate that is Directed to such Regeneron Target, conducting the preclinical studies (e.g., GLP toxicity studies) and GMP manufacturing needed to support an IND for a Regeneron Product that is Directed to such Regeneron Target.

(d) Preparation and Amendment of Plan. Within [***] days (or such extension thereof mutually agreed in writing by the Parties) after a given Target becomes a Regeneron Target pursuant to this Agreement, the Parties will jointly prepare the initial Product R&D Plan for such Regeneron Target and present such plan to the JSC for review and approval [***]. Thereafter, during the applicable Contract Year, either Party may propose at any meeting of the JSC amendments to the Product R&D Plan for such Regeneron Target; provided, that, at a minimum, no later than [***] days prior to the start of a given Contract Year during which Product R&D Program activities will continue to be conducted for a given Regeneron Target, Regeneron (with input from Intellia) shall propose an updated Product R&D Plan and corresponding updated budget for such Product R&D Program for the upcoming Contract Year for the JSC's review and approval; provided, however, that if the JSC does not approve such Product R&D Plan or budget for such upcoming Contract Year, then the dispute shall be resolved in accordance with Section 2.2(b).

4.4 Product R&D Program Performance.

(a) Efforts. Each Party shall use Commercially Reasonable Efforts to perform the activities allocated to such Party under the Product R&D Plans within the timelines set forth in the Product R&D Plans and to achieve the goals and deliverables set forth in the Product R&D Plans, including using Commercially Reasonable Efforts to generate a Lead Candidate that meets the Target Profile for each Regeneron Target in accordance with the Product R&D Plans. Each Party will have day-to-day operational control over those activities delegated to it in the Product R&D Plan. In all cases, if requested by Regeneron, Intellia shall use Commercially Reasonable Efforts to assist Regeneron with the performance of activities under the Product R&D Plan, including the transition of such activities to Regeneron [***].

(b) Costs. Costs incurred in the conduct of the Product R&D Program will be borne in accordance with Section 4.5.

(c) Reporting. Each Party shall report the progress and results of its activities under any Product R&D Plan to the JSC in accordance with Section 2.2(f). For clarity, all such reports shall be considered the Confidential Information of Regeneron, provided that all Materials and Intellectual Property contained or referenced therein shall be subject to the ownership provisions of this Agreement.

(d) Initial IND Acceptance. Without limiting the first sentence of Section 4.4(a), subject to JSC input on the overall regulatory strategy for the initial IND filing for a given Regeneron Product under a Product R&D Program, Regeneron shall have primary responsibility with respect to submitting, and shall use Commercially Reasonable Efforts to submit, Regulatory Filings necessary to achieve initial IND Acceptance for a Regeneron Product. Regeneron shall be responsible for all communications with Regulatory Authorities in connection therewith, with Intellia's support and input [***], which support and input shall be provided by Intellia upon reasonable request by Regeneron [***]. At the written request of Intellia, for so long as the Product R&D Program is continuing with respect to a given Regeneron Target, Regeneron shall, subject to Applicable Law, use Commercially Reasonable Efforts to include Intellia as an observer in material meetings with Regulatory Authorities for the initial IND filing for a given Regeneron Product Directed to such Regeneron Target.

(e) Expiration or Termination of Product R&D Program Term for a Given Regeneron Target.

(i) Regeneron may elect to assume all responsibilities under a Product R&D Program and terminate the Product R&D Program associated with given Regeneron Target [***] by notifying Intellia in writing; provided that Regeneron gives Intellia at least [***] months prior written notice of such termination. [***] In the event of any such Product R&D Program termination [***], Regeneron shall promptly pay Intellia [***] all Plan Cost amounts accrued by or owed to Intellia with respect to such terminated Product R&D Program as of the effective date of such termination [***].

(ii) Without limiting, and in addition to, Section 7.11, as soon as reasonably practicable following the end of the Product R&D Program for a given Regeneron Target (but in all cases within [***] days thereafter), Intellia shall [***].

(iii) From and after the termination of a given Product R&D Program, or expiration of a given Product R&D Program Term, (x) no further activities shall be conducted under such Product R&D Program (and the licenses set forth in Section 4.6 shall terminate), (y) the further development of Regeneron Products that are Directed to the applicable Regeneron Target shall be at the sole discretion of Regeneron (and shall no longer be subject to a Product R&D Plan), subject to the terms and conditions of this Agreement, and (z) for so long as Regeneron or its Affiliate continues to research and develop Regeneron Products Directed to such Regeneron Target that is the subject of the terminated Product R&D Program, Regeneron shall, subject to Applicable Law, use Commercially Reasonable Efforts to include Intellia as an observer in material meetings with Regulatory Authorities for the initial IND filing for the first Regeneron Product Directed to a Regeneron Target, as well as, all discussions and meetings with such Regulatory Authorities [***] for applicable Regeneron Products. For clarity, the termination of a given Product R&D Program, or expiration of a given Product R&D Program Term, shall not affect Regeneron's obligations to provide updates regarding such Product R&D Program under Section 2.2(f) or affect any other Product R&D Program.

4.5 Program Funding.

(a) Regeneron Responsibility for Costs. Regeneron shall be responsible for [***] Regeneron Allocated Regeneron Target Evaluation Plan Costs, in accordance with, and subject to, the remainder of this Section 4.5.

(b) Reporting and Payment of Costs.

(i) Within [***] days after the end of each Quarter, Intellia shall provide Regeneron with a detailed, activity-based statement of its Plan Costs incurred in such Quarter for the performance of the Product R&D Program and Regeneron Target Evaluation Program [***] (each, a "Intellia Cost Report"). Subject to Section 4.5(c), Regeneron shall make payment of Plan Costs that are [***] are Regeneron Allocated Regeneron Target Evaluation Plan Costs to Intellia within [***] days following receipt of such Intellia Cost Report, and an invoice therefor (i.e., assuming timely receipt of the Intellia Cost Report, no later than [***] days after the end of the Quarter).

(ii) If requested by Regeneron, any invoices [***] shall be promptly provided.

(c) Budgets and Overages. Intellia shall use Commercially Reasonable Efforts to ensure that the actual costs associated with the performance of activities allocated to it in a Product R&D Plan for a given Contract Year do not exceed [***] of the budgeted costs for such activities for such Contract Year as set forth in the budget in such Product R&D Plan.

Costs for the performance of all activities described in a Product R&D Plan that exceed the estimated allocated costs therefor as set forth in the budget by up to [***] shall be referred to herein as the "Permitted Target Development Overage", and such costs shall be included as Plan Costs. If Intellia believes that the actual costs in relation to its Product R&D Program activities during a Contract Year will exceed the allocated budget (plus the Permitted Target Development Overage, as applicable) for all such activities during such Contract Year, Intellia may request the JSC to review and approve such activities and the costs thereof before undertaking such excess cost. [***]

[***]

(d) Recording of Costs; Reports. All Plan Costs pursuant to this Section 4.5 shall be recorded and reported consistent with GAAP, consistently applied. Each Party shall keep records associated with Plan Costs incurred through performance of the Product R&D Programs and Regeneron Target Evaluation Plan strictly separate from records associated with Plan Costs incurred through performance of the Intellia Target Evaluation Programs and the Technology Collaboration. Unless otherwise agreed by the JSC, the financial data in the reports will include calculations in local currency and United States Dollars (converted into United States Dollars in accordance with Section 9.9). The JSC shall approve the form of any necessary documentation relating to any Plan Cost payments hereunder in connection with the Product R&D Programs and Regeneron Evaluation Target Programs so as to afford the Parties appropriate accounting treatment in relation to any of the transactions or payments contemplated hereunder.

4.6 Product R&D Program Licenses.

(a) Without limitation to the licenses granted pursuant to Section 6.3, Intellia shall grant, and hereby grants, to Regeneron a non-exclusive, worldwide, sublicensable license under the Intellia Intellectual Property (i) solely to perform the activities designated to be performed by Regeneron under applicable Product R&D Plan and (ii) solely to conduct research to evaluate potential Targets for nomination and selection as Regeneron Targets pursuant to Section 4.2 with respect to Non-Liver Targets, in the case of (i) until the expiration or termination of the applicable Product R&D Program Term, and in the case of (ii) until the expiration or termination of the Target Selection Period.

(b) Regeneron shall grant, and hereby grants, to Intellia a non-exclusive worldwide license under the Regeneron Product Inventions, Regeneron Materials Improvements and that portion of the Regeneron Contributed IP that is Product R&D Program Contributed Technology solely to perform the activities designated to be performed by Intellia under the applicable Product R&D Plan until the expiration or termination of the applicable Product R&D Program Term. Intellia may sublicense the license granted under this Section 4.6(b), (x) only in accordance with Section 7.2(c) and as necessary to enable permitted subcontractors under and in accordance with, Section 7.2(b) to perform certain of Intellia's obligations under an applicable Product R&D Plan and (y) subject in all cases to obtaining Regeneron's prior written consent, which consent will not be unreasonably withheld, conditioned or delayed, and which consent will be deemed to have already been granted to the extent such subcontracted activity (including the identity of the subcontractor) is included in the applicable Product R&D Plan.

4.7 Discussion of Additional License. Without limiting the rights and licenses expressly granted by Regeneron to Intellia under this Agreement, in the event that Intellia desires to obtain any additional licenses to Regeneron Contributed IP, Regeneron Materials and/or Regeneron Materials Improvements for use outside of the Technology Collaboration, a Regeneron Target Evaluation Program or Product R&D Program, then, at the reasonable written request of Intellia, and provided that such additional license does not include the Regeneron Products, the Parties shall discuss the terms and conditions under which such license may be so granted, and in the event that Parties agree on such terms and conditions, the Parties may negotiate a separate license agreement (or an amendment to this Agreement, as applicable) for such additional license. [***]

ARTICLE 5

CO-DEVELOPMENT AND CO-COMMERCIALIZATION OPTIONS

5.1 Intellia Liver Targets; Intellia Reserved Liver Targets.

(a) Research and Development of Intellia Liver Products; Intellia Reserved Liver Products.

(i) Subject to Section 5.1(a)(ii), Intellia may conduct research and development of Intellia Liver Products in its sole discretion, and Intellia shall be responsible for all costs related to such activities (except for Regeneron's activities under an Intellia Target Evaluation Plan and as set forth in Section 5.1(e) following the execution of a Co-Co Agreement). All research and development activities with respect to Intellia Liver Products, will be conducted in compliance with Applicable Laws, including Good Practices (as applicable). Decisions with respect to any [***] corrective action related to any Intellia Liver Product shall be made by Intellia (except as such decision making authority may be modified following the execution of a Co-Co Agreement), provided that in the event any such [***] corrective action would reasonably be expected to have a material adverse impact on Regeneron's or its Affiliates' development, manufacture and/or commercialization of Regeneron Products in the Field, then Intellia will discuss such decision with Regeneron. [***]

(ii) With respect to each Intellia Liver Target selected by Intellia pursuant to Section 4.1(a), during the Option Period, Intellia agrees to use Commercially Reasonable Efforts to conduct research and development with respect to Intellia Liver Products Directed to each such Intellia Liver Target [***]. If at any time during the Target Draft Period Intellia is no longer utilizing such Commercially Reasonable Efforts to research and develop Intellia Liver Products Directed to a given Intellia Liver Target, then, such Intellia Liver Target shall no longer be an Intellia Liver Target [***] and Intellia shall provide prompt written notice thereof to Regeneron, and thereafter, the Parties shall be free to nominate such Liver Target for a Draft in accordance with Section 4.1(a). Intellia will provide [***] updates to the JSC in respect of such Intellia Liver Targets researched and developed as contemplated by this Section 5.1(a)(ii). [***]

(iii) If, at any period during the Target Selection Period, a sufficient number of Intellia Reserved Liver Targets have become [***] Targets such that Intellia and its Affiliates, either alone or with a Third Party, are using Commercially Reasonable Efforts to research or develop less than a combined aggregate of [***] Intellia Reserved Liver Targets and Declined Targets, Intellia shall have the right, upon written notice to Regeneron, to elect to change Intellia Liver Target(s) to Intellia Reserved Liver Target(s) such that Intellia and its Affiliates, either alone or with a Third Party, may then research or develop a combined aggregate of [***] Intellia Reserved Liver Targets and Declined Targets (any such right, the "Intellia Minimum Active Program Right") [***]. When Intellia elects to exercise any Intellia Minimum Active Program Right, Intellia shall send Regeneron written notice (i) certifying that Intellia and its Affiliates, either alone or with a Third Party, are then researching and developing less than a combined aggregate of [***] Intellia Reserved Liver Targets and Declined Targets (and identifying the Intellia Reserved Liver Targets and Declined Targets that are no longer being developed) and (ii) designating Intellia Liver Target(s) as Intellia Reserved Liver Target(s), and thereafter all such [***] Targets shall automatically become Available Liver Targets and Intellia shall thereafter make all then existing data and other information in its possession regarding such Intellia Abandoned Targets available to Regeneron for Regeneron's evaluation of such Liver Targets for nomination [***]. Except as set forth in this Section 5.1(a)(ii), Intellia shall have no obligation to report to Regeneron (or the JSC) regarding in respect of its research and development of Intellia Liver Products Directed as Intellia Reserved Targets or Declined Targets.

(b) Intellia Target Evaluation Program. The provisions of Section 5.1(a) shall be in addition to, and without limitation of, the activities of each of the Parties under the Intellia Target Evaluation Programs.

(c) Regeneron Option. During the Target Draft Period and continuing for a period of [***] years thereafter (the "Option Period"), Intellia hereby grants Regeneron an exclusive option, to enter into a co-development and co-commercialization arrangement for [***] Intellia Liver Targets [***] which further includes an [***] cost and profit share arrangement with respect thereto (each, [***] a "Regeneron Option"), as more fully set forth in the remainder of this Section 5.1[***].

(d) Notice for Intellia Liver Product and Option Package.

(i) Upon the designation as a Lead Candidate of the first Intellia Liver Product Directed to each Intellia Liver Target that is subject to a Regeneron Option hereunder, and prior to any interactions or discussions with a Regulatory Authority (e.g., pre-Investigational New Drug Application meeting) with respect to such Intellia Liver Product, Intellia shall notify Regeneron regarding such designation. Within [***] days after receipt of such notice, Regeneron may request, in writing, that Intellia provide Regeneron the Option Package for such Intellia Liver Target. If Regeneron requests the Option Package within such timing, Intellia shall provide the Option Package for such Intellia Liver Product to Regeneron within twenty (20) days of such request. [***]

(ii) Within [***] days after the end of the Option Period, for any Intellia Liver Targets that are still subject to a Regeneron Option, Regeneron shall have the right to request an Option Package for such Intellia Liver Target pursuant to Section 5.1(d)(i) [***]. Intellia shall deliver to Regeneron an Option Package for each Intellia Liver Target as so requested by Regeneron [***], and thereafter Regeneron shall have the right to exercise a Regeneron Option for any such Intellia Liver Target in accordance with the provisions of this Section 5.1 [***]; provided, however, that, for clarity, notwithstanding the provisions of Section 5.1(e), if Regeneron does not exercise its Regeneron Option with respect to any such Intellia Liver Targets, such Intellia Liver Target shall not become a Declined Target.

(e) Exercise of Option.

(i) Exercise. If Regeneron wishes to exercise the Regeneron Option for a particular Intellia Liver Target, Regeneron shall provide written notice thereof (the "Regeneron Option Exercise Notice") to Intellia in writing within [***] days following the receipt by Regeneron of the Option Package for the respective Intellia Liver Product (the "Regeneron Option Period"). Upon Regeneron's timely exercise of the Regeneron Option with respect to a particular Intellia Liver Target, the Parties shall negotiate in good faith and enter into a separate agreement ("Co-Co Agreement") to set forth the terms of such co-development, co-commercialization and [***] cost and profit share arrangement, which shall be based on the Form of Co-Co Agreement. In the event that Regeneron does not exercise the Regeneron Option for a given Intellia Liver Target in accordance with this Section 5.1(e), then such Intellia Liver Target shall be deemed to be a Declined Target for purposes of this Agreement.

[***]

(iii) TTR Target. The Parties hereby agree and acknowledge that the Target set forth on Schedule 5.1(e)(iii)(the "[***] Target") shall be treated as an Intellia Liver Target (including, for clarity, to count as one (1) Regeneron Target towards the Regeneron Target Cap) for which Regeneron has exercised a Regeneron Option pursuant to Section 5.1(e)[***]. In connection therewith, the Parties shall enter into a Co-Co Agreement for the [***] Target as soon as reasonably practicable following the Effective Date [***], but in all cases in accordance with Section 5.3. Attached hereto as Schedule 5.1(e)(iii) is Intellia's development plan and budget for the development of the [***] Target, which shall not be amended without the mutual agreement of the Parties. Until such time as the Parties enter into a Co-Co Agreement for the [***] Target, Intellia shall use Commercially Reasonable Efforts to conduct, at its cost, the development activities for the [***] Target in accordance with such development plan and budget, and Intellia shall keep Regeneron reasonably informed in connection with all such activities. Once the Co-Co Agreement is entered into by the Parties for the [***] Target, Regeneron shall reimburse Intellia for [***] of the development costs incurred by Intellia for the conduct of such activities between the Effective Date and the date of execution of such Co-Co Agreement; provided that such costs shall not exceed the budget mutually determined by the Parties through the JSC and subject to the terms and conditions of the Co-Co Agreement.

(f) Counting a Former Intellia Liver Target Towards the Regeneron Target Cap. In the event that Regeneron exercises a Regeneron Option for a given Intellia Liver Target in accordance with Section 5.1(e) (including, for clarity, the exercise of a Regeneron Option on the Effective Date for the [***] Target), then, for the purposes of determining whether the number of Regeneron Targets exceeds the Regeneron Target Cap, such Intellia Liver Target shall be considered to be a Regeneron Target as of the date of exercise of such Regeneron Option and if the addition of such Intellia Liver Target as a Regeneron Target causes Regeneron to be in excess of the Regeneron Target Cap, Regeneron shall, as soon as reasonably practicable, identify in writing to Intellia a Regeneron Target that Regeneron desires to terminate in order to be at the Regeneron Target Cap [***] and the Parties shall as promptly as practicable wind-down all activities under the Product R&D Plan for such terminated Regeneron Target.

(g) Restrictions Prior to Regeneron Option. From and after the Effective Date but prior to the expiration of the Regeneron Option Period for a given Intellia Liver Target, Intellia (and its Affiliates) shall not [***].

(h) License for Declined Targets. With respect to Declined Targets, Regeneron shall grant, and hereby grants, to Intellia a perpetual, irrevocable, worldwide, royalty-free and fully paid-up (subject to Section 7.12), sublicensable through multiple tiers (in accordance with Section 7.2(c) and the remainder of this paragraph), license under (i) Regeneron's interest in Technology Collaboration Inventions, Regeneron Target Evaluation Program Inventions, Intellia Target Evaluation Program Inventions, Product R&D Program Inventions, Regeneron Product Inventions and Joint Improvements (provided, that, in each instance of the foregoing Intellectual Property, only to the extent such Intellectual Property was invented under the Regeneron Target Evaluation Program, Intellia Target Evaluation Program, or Product R&D Program, as applicable, for the applicable Declined Target or was a Regeneron Product Invention solely relating to a CP Directed to the applicable Declined Target, as applicable), and (ii) the Regeneron [***] IP [***], in each case to use, practice and otherwise exploit such of the foregoing Intellectual Property of clauses (i) and (ii) to research, develop, make, have made, use, sell, offer for sale and import CPs Directed to the applicable Declined Target for any and all uses in the Field (including any CP that was previously a Regeneron Product Directed to a Regeneron Target where such Regeneron Target has become a Declined Target hereunder), provided that Intellia shall only have the right to sublicense to Third Parties for those CPs that are Intellia CPs. The foregoing license shall be (x) exclusive (even as to Regeneron) with respect to clause (i) above, and (y) non-exclusive with respect to clause (ii) above.

(i) License for Drafted Expired Targets. With respect to Drafted Expired Targets (including one that subsequently becomes an Intellia Liver Target), Regeneron shall grant, and hereby grants, to Intellia a perpetual, irrevocable, worldwide, royalty-free and fully paid-up (subject to Section 7.12), sublicensable through multiple tiers (in accordance with Section 7.2(c) and the remainder of the paragraph, provided that such sublicense shall not require the prior written consent of Regeneron following the end of the Target Selection Period), exclusive license under Regeneron's interest in those Regeneron Product Inventions invented under the Regeneron Target Evaluation Program for such Drafted Expired Target to research, develop, make, have made, use, sell, offer for sale and import CPs Directed to such Drafted Expired Target for any and all uses in the Field, provided that Intellia shall only have the right to sublicense to Third Parties for those CPs that are Intellia CPs. The foregoing license shall immediately terminate if such Drafted Expired Target subsequently becomes a Regeneron Target or Regeneron Evaluation Target.

5.2 Intellia Option on Regeneron Targets.

(a) Intellia Option. During the Option Period, Regeneron hereby grants Intellia an exclusive option, to enter into a co-development and co-commercialization arrangement for [***] each Regeneron Target [***] which further includes an [***] cost and profit share arrangement with respect thereto, (each, [***] an "Intellia Option"), as more fully set forth in the remainder of this Section 5.2. [***]

(b) Option Package.

(i) Upon the designation as a Lead Candidate of the first Regeneron Product Directed to each Regeneron Target that is subject to an Intellia Option hereunder, and prior to any interactions or discussions with a Regulatory Authority (e.g., pre-Investigational New Drug Application meeting) with respect to such Regeneron Product, Regeneron shall notify Intellia regarding such designation. Within [***] days after receipt of such notice, Intellia may request, in writing, that Regeneron provide Intellia the Option Package for such Regeneron Target. If Intellia requests the Option Package within such timing, Regeneron shall provide the Option Package for such Regeneron Target to Intellia within [***] days of such request [***]

(ii) Within [***] days after the end of the Option Period, for any Regeneron Targets that are still subject to an Intellia Option, Intellia shall have the right to request an Option Package for such Regeneron Target pursuant to Section 5.2(b)(i) [***]. Regeneron shall deliver to Intellia an Option Package for each Regeneron Target as so requested by Intellia [***], and thereafter Intellia shall have the right to exercise an Intellia Option for any such Regeneron Target in accordance with the provisions of this Section 5.2 [***].

(c) Exercise of Option.

(i) Exercise. If Intellia wishes to exercise the Intellia Option for a particular Regeneron Target designated in the Option Package, it shall provide written notice thereof (the "Intellia Option Exercise Notice") to Regeneron in writing within [***] days following the receipt by Intellia of the Option Package for such Regeneron Target (the "Intellia Option Period"). Upon Intellia's timely exercise of its Intellia Option with respect to a particular Regeneron Target, the Parties will negotiate in good faith and enter into a separate Co-Co Agreement based on the Form of Co-Co Agreement.

[***]

(d) Restrictions Prior to Intellia Option. From and after the Effective Date but prior to the expiration of the Intellia Option Period for a given Regeneron Target, Regeneron (and its Affiliates) shall not [***].

5.3 Form of Co-Co Agreement.

(a) The Parties shall negotiate in good faith a form of Co-Co Agreement ("Form of Co-Co Agreement") based on Schedule 5.3 following the Effective Date and in accordance with the timelines described in this Section 5.3. [***]

(b) In the event that the Parties cannot negotiate and finalize the Form of Co-Co Agreement on or prior to [***], and provided that both Parties have been negotiating in good faith and in accordance with this Agreement, then either Party may, by written notice to the other Party, initiate the procedures described in this Section 5.3(b) to finalize the definitive terms and conditions of such agreement through binding arbitration as follows:

[***]

5.4 Modification of this Agreement By Co-Co Agreement. For clarity, in the event that the Parties enter into a Co-Co Agreement under this Article 5, such Co-Co Agreement may supersede certain provisions of this Agreement solely with respect to the particular Intellia Liver Target or Regeneron Target, as applicable, that is the subject of such Co-Co Agreement, which superseded provisions will be expressly identified in the Co-Co Agreement.

ARTICLE 6

REGENERON PRODUCT DEVELOPMENT, MANUFACTURING AND COMMERCIALIZATION

6.1 Development, Manufacturing and Commercialization.

(a) Regeneron.

(i) Except [***] as otherwise agreed by the Parties in writing, Regeneron shall have the sole right to research, develop (including seeking Marketing Approval for), manufacture and commercialize Regeneron Products, and Intellia (and its Affiliates) shall have no right to (and shall not) do so.

(ii) Following [***] provided that there has been IND Acceptance for a Regeneron Product Directed to such Regeneron Target, Regeneron shall use Commercially Reasonable Efforts to develop (including submitting for Marketing Approval for) at least one (1) Regeneron Product Directed to the applicable Regeneron Target and, following receipt of Marketing Approval [***], to commercialize such Regeneron Product. The foregoing shall in no way limit Regeneron's obligations to use Commercially Reasonable Efforts to submit Regulatory Filings necessary to achieve initial IND Acceptance for a Regeneron Product Directed to the applicable Regeneron Target as set forth in Section 4.4(d).

(b) Intellia Technical Support. Without limiting Section 4.4(e) and Section 7.11, following [***], upon Regeneron's written request, Intellia shall provide Regeneron with reasonable technical support related to the development of Regeneron Products Directed to such Regeneron Target [***].

6.2 Marketing Approvals and Other Approvals. Subject to the provisions of Section 4.4(d), Regeneron shall have the sole right, at its discretion and expense, to conduct regulatory activities to seek to obtain and maintain Approvals (including Marketing Approval) of the Regeneron Products, including the preparation and submission of any and all regulatory materials for Regeneron Products. [***]

6.3 Regeneron Product Licenses. Intellia shall grant, and hereby grants, to Regeneron an exclusive (even as to Intellia and its Affiliates), worldwide, sublicensable in multiple tiers (in accordance with Section 7.2(c)), license under the Intellia Intellectual Property to research, develop, make, have made, use, sell, offer for sale, and import Regeneron Products for use in the Field; provided, that, notwithstanding the foregoing license, (i) Intellia reserves the right to perform the activities designated to Intellia as set forth in the Product R&D Plans, and to manufacture Regeneron Product for use in the Product R&D Programs and for the supply of Regeneron Products as set forth in ARTICLE 8, and (ii) solely with respect to those rights under the Caribou-Intellia License Agreement sublicensed by Intellia to Regeneron hereunder, Regeneron is not licensed any rights with respect to (x) anti-microbial and/or anti-fungal uses and applications (provided that, for clarity, anti-viral uses and applications are included in the licenses hereunder) unless and until such time as Intellia comes to Control such rights and then such rights shall be included in the license granted to Regeneron hereunder without any further actions required by the Parties or (y) therapeutic uses in animals unless and until such time as Intellia comes to Control such rights and then such rights shall be included in the license granted to Regeneron hereunder without any further actions required by the Parties (provided that, for clarity, this clause (y) shall not limit any research or development activities with or in animals for products for human use). Intellia shall promptly notify Regeneron in writing should it come to Control anti-microbial and/or anti-fungal uses and applications and/or animal uses under the Caribou-Intellia License Agreement. Regeneron shall not, and shall ensure its Affiliates and sublicensees shall not, (1) itself or with or for any Third Party, exercise the licenses set forth in this Section 6.3 to research, develop, manufacture or commercialize, or (2) directly encourage, or directly support with the intent to encourage, others to exercise the licenses set forth in this Section 6.3 to research, develop, manufacture or commercialize on behalf of Regeneron, its Affiliates or sublicensees, in each case of (1) and (2), any Regeneron Product for use outside of the Field.

6.4 Unblocking License. In the event that either (a) the use, practice or exercise by Regeneron (or any of its Affiliates or sublicensees) of any Intellia Intellectual Property in accordance with the licenses expressly granted to Regeneron in accordance with this Agreement or (b) the research, development, making, having made, use, sale, offering for sale, or import by Regeneron (or any of its Affiliates or sublicensees) of a Regeneron Product [***] for use in the Field, pursuant to, and in accordance with, this Agreement, would infringe or misappropriate any Patent Right which is first Controlled by Intellia or its Affiliates after the IP Term and which is not covered by the license grant in Section 6.3, Intellia shall grant, and hereby grants, to Regeneron a non-exclusive, royalty-free, worldwide, sublicensable in multiple tiers (in accordance with Section 7.2(c)) license under such Patent Right solely as necessary to (i) use, practice and exercise the Intellia Intellectual Property in accordance with the licenses expressly granted to Regeneron in accordance with this Agreement and (ii) research, develop, make, have made, use, sale, offer for sale, and import Regeneron Products for use in the Field in accordance with this Agreement, and solely for such purpose. The foregoing license under this Section 6.4 shall automatically terminate on a Regeneron Product-by-Regeneron Product basis simultaneous with the termination of the license under Section 6.3 with respect to such Regeneron Product. [***]

6.5 Ex-Vivo Field. In the event that Regeneron desires to expand the Field to include the Ex-Vivo Field on a Regeneron Target-by-Regeneron Target basis, then, at the written request of Regeneron, and provided that such expansion does not include the Reserved Ex Vivo Field and subject to Intellia's obligations to Third Parties under other license or collaboration arrangements, the Parties shall negotiate in good faith the terms and conditions under which the Field may be so expanded, and in the event that Parties agree on such terms and conditions, the Parties shall negotiate in good faith and enter into a separate agreement (or an amendment to this Agreement, as applicable) to so expand the Field accordingly. Notwithstanding the foregoing or anything to the contrary herein, Intellia retains the sole and unmitigated right to determine whether it desires to grant any such additional license.

6.6 Regeneron Product Limitations. On a Regeneron Product-by-Regeneron Product basis, Intellia (and its Affiliates) shall not use (and shall not grant to any Third Party the right to use) any Regeneron Products for any purposes (including the research, development, manufacturing or commercialization thereof), except for (x) Intellia's performance of the activities to be performed by Intellia under the Product R&D Program as set forth in the Product R&D Program Plan in accordance with this Agreement, and (y) the manufacture of Regeneron Products by Intellia for use in the Product R&D Programs as set forth in ARTICLE 8 or as otherwise agreed by the Parties in writing.

ARTICLE 7

PERFORMANCE AND PERFORMANCE STANDARDS

7.1 Licenses Generally; No Implied License. Except as expressly provided for herein, nothing in this Agreement grants either Party any right, title or interest in and to the intellectual property rights, materials or Confidential Information of the other Party (either expressly or by implication or estoppel). Except as expressly provided in this Agreement, neither Party will be deemed by this Agreement to have been granted any license or other rights to the other Party's Patent Rights or Know-How, either expressly or by implication, estoppel or otherwise. [***]

7.2 Performance Standards.

(a) Affiliates. Each Party may carry out its obligations, and exercise its rights, under this Agreement through its Affiliates, and in such case, the Party carrying out such activities, or exercising such rights, through its Affiliate absolutely, unconditionally and irrevocably guarantees to the other Party the performance by such Party's Affiliates in accordance with this Agreement, including performance of responsibilities, liabilities, covenants, warranties, agreements and undertakings of its Affiliates pursuant to this Agreement. Without limiting the foregoing, neither Party shall cause or permit any of its Affiliates to commit any act (including any act or omission) which such Party is prohibited hereunder from committing directly. Each Party represents and warrants to the other Party that it has licensed or will license from its Affiliates the Patent Rights and Know-How Controlled by its Affiliates that are to be licensed (or sublicensed) to the other Party under this Agreement.

(b) Subcontracts. Each Party may perform any of its obligations or exercise its rights under this Agreement through one or more subcontractors; provided that (i) [***]; (ii) the subcontracting Party remains responsible for the work allocated to, and payment to, such subcontractors it selects to the same extent it would if it had done such work itself and the non-subcontracting Party will have the right to proceed directly against the subcontracting Party without any obligation to first proceed against its subcontractor; (iii) [***]; and (iv) the subcontractor agrees in writing to assign all inventions and intellectual property developed in the course of performing any such work under [***], to the Party retaining such subcontractor (or to the other Party if such inventions or intellectual property are to be assigned to such other Party as

required under this Agreement) and upon request to sign any documents to confirm or perfect such assignment and to cooperate in the preparation and prosecution of any such inventions. [***] To the extent any licenses are granted under any subcontract agreements, such agreements will be subject to Section 7.2(c).

(c) Sublicensees.

(i) To the extent a license is sublicensable pursuant to the applicable license grant hereunder, or is required in connection with a permitted subcontracting pursuant to Section 7.2(b), the applicable Party may enter into sublicenses under such licenses granted in this Agreement, but subject to compliance with this Section 7.2(c) and the other applicable terms and conditions set forth in this Agreement. Each Party shall remain responsible and liable for the compliance, or failure to comply, by its sublicensees under the licensees granted herein with the applicable terms and conditions set forth in this Agreement and the non-sublicensing Party will have the right to proceed directly against the sublicensing Party without any obligation to first proceed against its sublicensee. [***]

(ii) With respect to [***] or any other Intellectual Property that is invented and jointly owned by the Parties under this Agreement, subject to the terms and conditions of this Agreement [***], each Party shall have the right to grant (sub)licenses (through multiple tiers) thereto for any purposes without the need to seek consent from or account to the other Party (and, for clarity, neither Party shall be required to obtain the consent of the other Party with respect to such (sub)license anywhere in the world and, to the extent that such consent is required in any country in the world, such consent is hereby granted) [***].

7.3 Intellia Third Party Agreements.

(a) [***] Intellia will be [***] responsible for all payments under the Intellia Existing Third Party Agreements and any and all other agreements between Intellia (or any of its Affiliates) and any Third Parties [***].

(b) [***].

(c) Following the Effective Date during the Term, Intellia or its Affiliates, in its sole discretion (but subject to Section 7.4), may enter into new agreements with Third Parties to license technologies or Intellectual Property from such Third Parties [***] (an "Intellia Platform In-License").

(d) Commencing on the Effective Date and continuing until [***], if Intellia or its Affiliates enters into any Intellia Platform In-License during such period [***], that may be useful or necessary in connection with the [***], then Intellia will provide written notice of such license to Regeneron, [***], so Regeneron may elect whether to include such license under this Agreement. If Regeneron provides notice that it does elect to include such Intellectual Property within [***] of receipt of such written notice from Intellia [***], then (A) the respective Intellia

Platform In-License will be deemed to be a "New Intellia Platform License" hereunder, and (B) with respect to any such New Intellia Platform License, the Patent Rights, Know-How and Materials in-licensed under such New Intellia Platform License will be deemed "Controlled" by Intellia under this Agreement. Any Intellia Platform In-License not selected by Regeneron hereunder within such [***] day period, shall not be deemed a New Intellia Platform License hereunder [***].

(e) To the extent that any milestones or royalties under a New Intellia Platform License are attributable to one or more Regeneron Products [***] ("Regeneron Specific Third Party Payments"), then [***] of such amounts shall be borne by Regeneron and Regeneron shall be solely responsible for and bear all of such Regeneron Specific Third Party Payments [***].

(f) To the extent applicable, the licenses granted to Regeneron and its Affiliates under this Agreement [***] will be subject to Regeneron's and its Affiliates', and their sublicensees' compliance with the applicable terms of the applicable Intellia Existing Third Party Agreements [***], and as may be amended or restated in accordance with this Section 12.3(c) [***], and the applicable terms of any New Intellia Platform License [***] and as may be amended or restated in accordance with Section 12.4(a)(iv) [***]) and Intellia shall be permitted to disclose the terms and conditions of this Agreement to such Third Party licensors as and to the extent required for compliance therewith [***] provided that such Third Party licensors are subject to confidentiality restrictions that are substantially the same as, or at least as restrictive as, the confidentiality obligations in Article13.

[***]

(i) For clarity, this Section 7.3 shall not in any way limit Intellia's obligations under Section 12.4.

7.4 Coordination of Third Party Intellectual Property Licensing.

(a) During the Target Selection Period, if either Party (or its Affiliate) desires to obtain a license to Intellectual Property of a Third Party for use in the performance of [***], then prior to entering into such license, the Parties shall discuss in good faith and coordinate the licensing of such Intellectual Property; provided, however, that nothing in this Section 7.4 shall prevent or prohibit or require a Party (or any of its Affiliates) from entering into any such license. [***]

7.5 Records.

(a) Records.

(i) In connection with the Technology Collaboration, each Party shall prepare and maintain, or shall cause to be prepared and maintained, complete and accurate

written records, accounts, notes, reports and data with respect to its activities conducted pursuant to the Technology Collaboration Plan in conformity with Applicable Laws and standard pharmaceutical industry practices; provided that in no case shall written documentation be maintained for less than [***] years following the Contract Year to which such records pertain. Such records shall fully and properly reflect all work done and results achieved in the performance of the development activities in good scientific manner appropriate for regulatory and patent purposes. Upon a Party's written request, the other Party shall send legible copies of the aforesaid information to the requesting Party during the Term and for a minimum of [***] months following the Term.

(ii) In connection with the Regeneron Target Evaluation Programs and Product R&D Programs, Intellia shall prepare and maintain, or shall cause to be prepared and maintained, complete and accurate written records, accounts, notes, reports and data with respect to its activities conducted pursuant to each Regeneron Target Evaluation Program and Product R&D Plan in conformity with Applicable Laws and standard pharmaceutical industry practices; provided that in no case shall written documentation be maintained for less than [***] years following the Contract Year to which such records pertain. Such records shall fully and properly reflect all work done and results achieved in the performance of the development activities in good scientific manner appropriate for regulatory and patent purposes. Upon Regeneron's written request, Intellia shall send legible copies of the aforesaid information to Regeneron during the Term and for a minimum of [***] months following the Term.

[***]

(b) Record Keeping Generally. The Parties acknowledge the importance of ensuring that the performance of each Plan is undertaken in accordance with the following good data management practices: (i) data shall be generated using sound scientific techniques and processes; (ii) data shall be accurately and reasonably contemporaneously recorded in accordance with good scientific practices by Persons conducting research hereunder; (iii) data shall be analyzed appropriately without bias in accordance with good scientific practices; and (iv) all data and results shall be stored securely and shall be easily retrievable.

7.6 Governmental Inspection. If any Governmental Authority conducts or gives notice to either Party of its intent to conduct an inspection or audit of such Party or its facilities that relates to such Party's performance hereunder, or that could affect such Party's ability to perform hereunder and in accordance herewith, such Party shall promptly notify the other Party and shall provide updates from time-to-time, including upon such other Party's reasonable request, regarding the results of such audit or inspection, including any corrective steps to be taken.

7.7 Materials for Technology Collaboration, Regeneron Target Evaluation Programs, Intellia Target Evaluation Programs and Product R&D Program.

(a) Contributed Materials. To facilitate the conduct of activities hereunder, a Party shall provide the [***], "Materials"). All such Materials will remain the sole property of the providing Party. The receiving Party will (i) itself retain control of all such Materials, (ii) use

such Materials only in the fulfillment of obligations or exercise of rights under this Agreement, (iii) not use such Materials or deliver the same to, or for the benefit of, any Third Party, without the providing Party's prior written consent [***] and (iv) not use such Materials in research or testing involving human subjects, without the providing Party's prior written consent [***]. The Materials supplied under this Section 7.7 are supplied "as is", and accordingly the receiving Party agrees to use prudence and appropriate caution in the use, handling, storage, transportation and disposition and containment of all such Materials, as not all of their characteristics may be known. [***]

(b) Regeneron Mice. Without limiting Section 7.7(a), in the event Regeneron provides Intellia any Regeneron Mice hereunder, Intellia agrees that it will (and will ensure that its Affiliates and subcontractors will), [***] use Regeneron Mice solely for purpose of performing Intellia's obligations under the applicable Plan in accordance with this Agreement [***].

7.8 Debarment. Each Party hereby covenants to the other Party that in the course of conducting Technology Collaboration, the Regeneron Target Evaluation Program, the Intellia Target Evaluation Program and the Product R&D Program, it will not use an employee or consultant who is or has been debarred by a Regulatory Authority or, to such Party's knowledge, is or has been the subject of debarment proceedings by a Regulatory Authority.

7.9 No Use of Non-Controlled IP in Technology Collaboration or Product R&D Program. Each Party hereby covenants to the other Party that in the course of conducting the Technology Collaboration, Intellia Target Evaluation Program or the Regeneron Target Evaluation Program it will not use in or contribute to the Technology Collaboration any material, Confidential Information, Intellectual Property, or trademark that such contributing Party knows (without any duty to inquire) misappropriates the Intellectual Property of a Third Party. Intellia hereby covenants to Regeneron that in the course of conducting the Regeneron Target Evaluation Program and Product R&D Program, it will not use in or contribute to the Regeneron Target Evaluation Program or Product R&D Program, as applicable, any material, Confidential Information, Intellectual Property, or trademark that it knows (without any duty to inquire), that it does not Control. Regeneron hereby covenants to Intellia that in the course of conducting the Intellia Target Evaluation Program, it will not use in or contribute to the Intellia Target Evaluation Program, as applicable, any material, Confidential Information, Intellectual Property, or trademark that it knows (without any duty to inquire), that it does not Control. The Parties acknowledge and agree that this Section 7.9 is not intended to be, and shall not be deemed to be, a covenant against non-infringement of Intellectual Property.

7.10 Further Assurances and Transaction Approvals. Upon the terms and subject to the conditions hereof, each of the Parties agrees to do and perform all such further ministerial acts and things and shall execute and deliver such other agreements, certificates, instruments and documents necessary or that the other Party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and to evidence, perfect or otherwise confirm its rights hereunder.

7.11 Ongoing Technology Update and Transfer Obligations. During the Term, Intellia shall (a) promptly disclose to Regeneron in English (and deliver in writing and in an electronic format) any Intellia Know-How relating to a Regeneron Product (or the development, manufacture, or commercialization thereof) as may be developed, accessed or identified by or on behalf of Intellia (or its Affiliates) or as may otherwise be requested by Regeneron, (b) transfer and provide to Regeneron any other materials and documentation in Intellia's (or its Affiliate's or subcontractor's) possession as may be reasonably requested by Regeneron from time to time that are necessary or useful for the development, manufacture, or commercialization of Regeneron Products in accordance herewith and (c) at the request of Regeneron, provide reasonable assistance and personnel, including answering all reasonable questions, in order to allow Regeneron to utilize and implement the Intellia Know-How in connection with the Regeneron Products[***].

7.12 Regeneron IP. In the event that any Regeneron Contributed IP (or other Intellectual Property licensed by Regeneron to Intellia hereunder) is in-licensed from a Third Party, then (i) Regeneron will provide written notice of such in-license to Intellia [***] and the applicable Third Party [***], (ii) in using any such Regeneron Contributed IP (or such other Intellectual Property), or exercising any licenses granted to Intellia hereunder with respect thereto, Intellia shall comply (and ensure compliance by its Affiliates and sublicensees) with the terms and conditions of the applicable in-license agreement between Regeneron (or its Affiliate, as applicable) and the applicable Third Party, but only following Regeneron's notification to Intellia thereof pursuant to clause (i) above, and (iii) Intellia shall reimburse Regeneron for any and all amounts payable by Regeneron (or its Affiliate, as applicable) to the applicable Third Party under the in-license agreement between Regeneron (or its Affiliate, as applicable) and the applicable Third Party solely to the extent (A) such amounts result from Intellia's (or its Affiliate's or sublicensee's) use of such Regeneron Contributed IP (or such other Intellectual Property) or the exercise of any licenses granted to Intellia hereunder with respect thereto [***] and (B) such amounts were disclosed in writing to Intellia pursuant to clause (i) above, which amounts shall be reimbursed by Intellia to Regeneron within [***] days after receipt of an invoice therefor (and in connection therewith, Intellia shall provide to Regeneron reasonable information in Intellia's possession in order for Regeneron to determine such amounts).

ARTICLE 8

REGENERON PRODUCT MANUFACTURING

8.1 General. Subject to the provisions of this ARTICLE 8, Intellia will be responsible for the non-GMP manufacture and supply of Regeneron Products to support the research and preclinical development of Regeneron Products pursuant to the Product R&D Plans. For clarity, except as otherwise agreed by the Parties pursuant to Section 8.3, Regeneron shall be responsible

for the manufacture of Regeneron Products following preclinical development for a Regeneron Product, including for all clinical development and commercialization purposes, and during preclinical development to the extent contemplated by Section 8.2 or 8.4 below. The Parties through the JSC shall discuss in good faith the manufacture of Regeneron Products, and reasonably cooperate with each other in all such supply matters pertaining to the Regeneron Products under this Article 8.

8.2 Supply for Product R&D Program.

(a) Supply. Subject to the provisions of this Section 8.2, Intellia shall manufacture (or have manufactured) the quantities of Regeneron Products (including its components) that are necessary to perform the pre-clinical activities under the Product R&D Programs, which manufacturing shall be performed in accordance with Applicable Laws and all other requirements as set forth in the Product R&D Plan. The quantities of Regeneron Products to be supplied by Intellia, shall be set forth in the applicable Product R&D Plan, and the Manufacturing Cost of such Regeneron Products shall be included as Plan Costs hereunder.

(b) Third Party Manufacturers. The Parties acknowledge that Intellia may use one or more Third Party contract manufacturers to manufacture such Regeneron Products pursuant to Section 8.2(a); provided that the selection of such Third Party contract manufacturer shall be subject to Regeneron's prior written approval, not to be unreasonably withheld, conditioned or delayed. Intellia will give Regeneron [***] days' written notice (the "Rejection Period") prior to engaging any Third Party contract manufacturer for manufacture of pre-clinical Regeneron Products hereunder, and permit Regeneron to review such proposed Third Party contract manufacturer within such Rejection Period. If Intellia provides written notice to Regeneron of its intended engagement of a Third Party contract manufacturer to manufacture pre-clinical Regeneron Product pursuant to Section 8.2(a) and Regeneron either (i) consents to such Third Party manufacturer or (ii) Regeneron does not provide written notice of its reasonable rejection of such Third Party contract manufacturer within the Rejection Period, then Regeneron shall have accepted or be deemed to have accepted, respectively, such Third Party contract manufacturer as a permitted Third Party manufacturer hereunder. If Regeneron provides its written rejection of such Third Party contract manufacturer within such Rejection Period, then (x) Intellia shall not utilize such Third Party contract manufacturer to manufacture Regeneron Product to be supplied to Regeneron pursuant to Section 8.2(a), and (y) the Parties shall discuss and mutually agree upon an alternative Third Party contract manufacturer acceptable to both Parties and Intellia shall exercise reasonable, good faith efforts to enter into a contract with such Third Party contract manufacturer for supply of such Regeneron Products thereunder, or (z) Regeneron shall have the right to enter into a contract with a Third Party contract manufacturer for supply of such Regeneron Products to Regeneron, provided, further, that in each such case (y) and (z), Intellia shall ensure that copies of all Know-How Controlled by Intellia (or any of its Affiliates) necessary or useful for the manufacture of such Regeneron Product in accordance herewith shall be provided to such Third Party contract manufacturer, in accordance with this Agreement, which manufacturing shall be performed in accordance with

Applicable Laws and all other requirements as set forth in the Product R&D Plan. With respect to any such Third Party contract manufacturer for Regeneron Products, Regeneron shall have the right (and Intellia shall ensure that Regeneron has the right) to audit the facilities utilized in the manufacture of Regeneron Products or records related thereto of any such Third Party contract manufacturer. Regeneron shall have the right to review and comment on the draft agreement or amendment with each such Third Party contract manufacturer to the extent applicable to the manufacture and supply of one or more Regeneron Products hereunder, and Intellia shall consider in good faith the comments of Regeneron thereon (provided that Regeneron shall timely provide such review and comment). If any such materials are manufactured by such Third Party contract manufacturer, Intellia shall pass through to Regeneron such Regeneron Product specific warranties as Intellia receives from such Third Party contract manufacturer with respect thereto solely to the extent permitted under Intellia's agreement with such Third Party contract manufacturer or, if not permitted, Intellia shall provide substantially similar warranties with respect to any supply hereunder as are provided by any such Third Party contract manufacturer to Intellia.

8.3 Supply Beyond Pre-Clinical. During the Product R&D Program for a given Regeneron Product, the JSC shall discuss alternatives for the manufacture and supply of Regeneron Product beyond pre-clinical supply, including GMP manufacturing needed to support an IND for a Regeneron Product. At the request of Regeneron, the Parties shall engage in good faith negotiations regarding Intellia continuing to supply a given Regeneron Product to Regeneron beyond pre-clinical supply; provided, that neither Party shall be required to enter into any continuing supply relationship unless agreed to by such Party, in such Party's sole discretion. Notwithstanding the foregoing, in the event that Intellia (or its Affiliate) seeks to engage a Third Party contract manufacturer during the Term to manufacture CPs, Intellia shall notify Regeneron thereof in writing, and, at the written request of Regeneron, Intellia shall use good faith efforts to coordinate with Regeneron in the negotiation of such manufacturing relationship (including consulting with Regeneron in connection therewith), and, to the extent requested by Regeneron, Intellia will use reasonable, good faith efforts to assist Regeneron in its efforts to enter into a supply arrangement with such Third Party contract manufacturer for the supply of Regeneron Products to Regeneron.

8.4 Manufacturing Process Technology Transfer.

(a) Generally. Following the end of the Product R&D Program with respect to Regeneron Products Directed to a given Regeneron Target, or at such earlier time as mutually agreed by the Parties or reasonably requested by Regeneron, to the extent necessary to or useful for Regeneron to assume and perform manufacturing of such Regeneron Products, Intellia will (and will cause its contract manufacturers to) conduct a technology transfer [***] for such Regeneron Product to Regeneron or Regeneron's designated contract manufacturer to enable Regeneron (or its designated contract manufacturer) to assume responsibility for the manufacture of such Regeneron Product, including for clinical and commercial purposes as applicable. [***]

(b) Plan and Costs. At the request of Regeneron, the Parties shall enter into a mutually agreed and commercially reasonable technology transfer plan and schedule for such manufacturing technology transfer; provided, that Regeneron will reimburse Intellia the reasonable costs incurred by Intellia in providing such transition assistance, including Intellia's internal costs at the FTE Rate, as and to the extent set forth in the technology transfer plan.

ARTICLE 9

PAYMENTS

9.1 Upfront Payment. Regeneron shall pay Intellia seventy five million dollars ($75,000,000) within [***] Business Days after receipt of an invoice therefor from Intellia (provided that Intellia shall not deliver such invoice until the Effective Date).

9.2 Development and Commercial Milestones.

(a) Milestones and Payments. On a Regeneron Target-by-Regeneron Target basis, Regeneron shall pay Intellia the milestone payments set forth in the table below upon the first achievement by Regeneron of the corresponding milestone event set forth in the table below for the first Regeneron Product Directed to such Regeneron Target. For clarity, each milestone event (and the corresponding milestone payment) is payable only once with respect to a given Regeneron Target (even if the same milestone event is subsequently achieved again for the same Regeneron Target, whether by the same Regeneron Product Directed to such Regeneron Target or by a different Regeneron Product Directed to such Regeneron Target).

1. Initiation (first patient dosed) of the first Phase I Trial for the first Regeneron Product Directed to a particular Regeneron Target	[***]
2. Initiation (first patient dosed) of the first Phase II Trial for the first Regeneron Product Directed to a particular Regeneron Target	[***]
3. Initiation (first patient dosed) of the first Phase III Trial for the first Regeneron Product Directed to a particular Regeneron Target	[***]
4. First acceptance by a Regulatory Authority of filing for U.S. Marketing Approval for the first Regeneron Product Directed a particular Regeneron Target	[***]
5. Receipt of U.S. Marketing Approval for the first Regeneron Product Directed to a particular Regeneron Target	[***]
6. Receipt of U.S. Marketing Approval for the second Regeneron Product Directed to a particular Regeneron Target (i.e., a second BLA, and not a supplemental BLA)	[***]
7. Receipt of Marketing Approval in the first of the United Kingdom, Germany, France, Italy, Spain or Japan for the first Regeneron Product Directed to a particular Regeneron Target	[***]
8. Receipt of Marketing Approval in the first of United Kingdom, Germany, France, Italy, Spain or Japan for the second Regeneron Product Directed to a particular Regeneron Target	[***]

Sales Milestones

Milestone Event	Milestone Payment
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

[***]

(b) Payment Timing. Regeneron shall notify Intellia in writing of the achievement of a given milestone event under Section 9.2(a) within [***] days after the milestone event is achieved; provided that, with respect to sales milestones, Regeneron shall provide such notice within [***] days after the end of the Quarter during which the corresponding milestone event is achieved. Following such written notice to Intellia, Intellia shall invoice Regeneron for the corresponding milestone payment and Regeneron shall pay the corresponding milestone payment to Intellia within [***] days after receipt of an invoice therefor.

[***]

9.3 Royalty Payments for Regeneron Products.

(a) Royalty Rate. From and after the First Commercial Sale of a given Regeneron Product in a given country, for each Quarter during the applicable Royalty Term for such Regeneron Product in such country, Regeneron or its Affiliate will make royalty payments to Intellia on aggregate worldwide annual Net Sales by it, its Affiliates, or any of their sublicensees of such Regeneron Product, on a Regeneron Product-by-Regeneron Product basis, at the following royalty rates (the "Royalties"):

Worldwide Annual Net Sales* of a Regeneron Product in any calendar year during the Royalty Term	Royalty Rate
[***]	[***]

[***]

[***]

(b) Know-How Royalty Reduction. Notwithstanding the provisions of Section 9.3(a) but subject to Section 9.5, during the Royalty Term in the event the manufacture, use or sale of a given Regeneron Product by Regeneron (or its Affiliate or sublicensee) in a given country of sale (and, solely for the purposes of calculating whether royalties are owed under the UC Technology License the country of manufacture) does not infringe a Valid Claim [***], then the royalty rates in such country for such Regeneron Product as set forth in Section 9.3(a) will be reduced to [***].

(c) Compulsory License Reduction. If a court or a governmental agency of competent jurisdiction requires Regeneron or any of its Affiliates or its or their sublicensees to grant, or Regeneron or any of its Affiliates or its or their sublicensees reasonably determines in advance of any such requirement and in order to minimize further court or governmental action to grant, a compulsory license to a Third Party permitting such Third Party to sell a Regeneron Product in a country, and such license is granted and the royalty rate contained in such license for sales of such Regeneron Product in such country is lower than the royalty rate provided by the foregoing Section 9.3(a) or 9.3(b), as applicable, then the Royalties to be paid by Regeneron on Net Sales in such country for such Regeneron Product shall be the rate [***] For clarity, following the expiration or termination of such compulsory license during the Royalty Term for such Regeneron Product in such country, the full Royalty otherwise required to be paid under this Agreement pursuant to this Section 9.3 shall apply for the remainder of such Royalty Term.

[***]

9.4 Payments to Third Parties.

(a) In the event that Regeneron (or its Affiliate or sublicensee) are required to make any [***] payments to a Third Party as a result of a license (or other rights) granted to Regeneron (or its Affiliate or sublicensee) by such Third Party under such Third Party's Intellectual Property [***], then Regeneron shall be entitled to deduct from any Royalties payable to Intellia under Section 9.3 [***] percent [***] of such Third Party [***] payments paid by Regeneron (or its Affiliate or sublicensee) with respect to such Regeneron Product in the Field [***].

(b) In the event that Regeneron (or its Affiliate or sublicensee) are required to make any [***] payments to a Third Party as a result of a license (or other right) granted to Regeneron (or its Affiliate or sublicensee) by such Third Party under such Third Party's Intellectual Property [***], then Regeneron shall be entitled to deduct from any Royalties payable to Intellia under Section 9.3 (with the right to carryforward any unused balance) [***] percent [***] of such Third Party [***] payments paid by Regeneron (or its Affiliate or sublicensee) with respect to such Regeneron Product in the Field [***].

9.5 Royalty Floor. Regeneron shall be entitled to aggregate together the various reductions in the Royalties pursuant to Section 9.4; provided that, in no event shall such aggregation pursuant to Section 9.4 reduce the Royalties otherwise payable under Section 9.3(a), during any given Quarter, to an effective royalty rate that is less than [***]. In addition, the aggregate reductions in Royalties pursuant to Section 9.4 and Section 9.3(b) shall not reduce the Royalties otherwise payable under section 9.3(a) during any given Quarter to an effective royalty rate that is less [***].

9.6 Royalty Conditions. All Royalties pursuant to Section 9.3 are subject to the following conditions:

[***]

9.7 Royalty Term. The Royalties payable under Section 9.3 shall be paid on a Regeneron Product-by-Regeneron Product and country-by-country basis, commencing on the

First Commercial Sale of such Regeneron Product in such country and continuing until the later of (i) the expiration of the last Valid Claim within the Intellia Patent Rights or Regeneron Product Inventions that Covers such Regeneron Product in such country of sale (and, solely for the purposes of calculating whether royalties are owed under the UC Technology License the country of manufacture) or (ii) twelve (12) years from the First Commercial Sale of such Regeneron Product in such country, or (iii) expiration of Regulatory Exclusivity for the applicable Regeneron Product in such country (the applicable period of time during which Royalties are payable being referred to as the applicable "Royalty Term"). For purposes of the Royalty Term, the term "Regulatory Exclusivity" means any exclusive marketing rights or data exclusivity rights conferred by any Regulatory Authority with respect to a Regeneron Product other than Patent Rights, including rights conferred in the U.S. to an NDA holder under the Hatch-Waxman Act or the FDA Modernization Act of 1997 (including pediatric exclusivity), or rights similar thereto outside the United States.

9.8 Periodic Royalty Reports and Royalty Payment. Within [***] days following the end of [***], Regeneron shall deliver electronically to Intellia a written report [***]. Within [***] days of Intellia's receipt of such report, Regeneron shall deliver the Royalties payment, if any, due to Intellia under Section 9.3 for the applicable Quarter. [***]

9.9 Payment Method and Currency. All payments under this Agreement shall be made by bank wire transfer in immediately available funds to an account designated by the Party to which such payments are due. All sums due under this Agreement shall be payable in United States Dollars. In those cases where the amount due in United States Dollars is calculated based upon one or more currencies other than United States Dollars, such amounts shall be converted to United States Dollars [***].

9.10 Taxes. Either Party may withhold from payments due to the other Party amounts for payment of any withholding tax that is required by Applicable Law to be paid to any taxing authority with respect to such payments. In such case, the payor Party will provide the payee Party all relevant documents and correspondence, and will also provide to the payee Party any other cooperation or assistance on a commercially reasonable basis as may be necessary to enable the payee Party to claim exemption from such withholding taxes and to receive a refund of such withholding tax or claim a foreign tax credit. The payor Party will give proper evidence from time to time as to the payment of any such tax. The Parties will cooperate with each other in seeking deductions under any double taxation or other similar treaty or agreement from time to time in force. Such cooperation may include the payor Party making payments from a single source in the U.S., where possible. [***] the payor Party will have no obligation to pay any additional amount to the extent that the withholding tax would not have been imposed but for (i) the failure by the payee Party to take advantage of an otherwise available exemption from or reduction in the rate of withholding tax under any applicable income tax convention between the United States and any applicable jurisdiction or (ii) the assignment by the payee Party of its rights or obligations hereunder (including to Affiliates) under this Agreement or any redomiciliation of the payee Party or any of its Affiliates outside of the United States. [***] Apart from any withholding permitted under this Section 9.10 and those deductions expressly included in the definition of Net Sales, the amounts payable hereunder will not be reduced on account of any taxes, charges, duties or other levies.

9.11 Resolution of Payment Disputes. In the event there is a dispute relating to any payment obligations or reports hereunder, the Party with the dispute shall have its representative on the JSC provide the other Party's representative on the JSC with written notice setting forth in reasonable detail the nature and factual basis for such good faith dispute and the Parties, through the JSC, will seek to resolve the dispute as promptly as possible, but no later than [***] days

after such written notice is received. If the JSC is unable to resolve such payment dispute within such period then either Party may pursue such remedies as are available under Section 17.1. The Parties agree that if there is a dispute regarding any payment amount, only the disputed amount shall be withheld from the payment, and the undisputed amount shall be paid within the applicable timeframes.

9.12 Late Fee. A late fee of [***] on the date that the applicable payment was due may be charged by the Party to whom payment is due with respect to any payment amount from the date such payment amount was originally due under the terms of this Agreement (provided that if the payment is disputed, then the foregoing late fee shall commence from the date that the disputed amount was originally due) until such payment amount is actually paid by one Party to another Party.

ARTICLE 10

INTELLECTUAL PROPERTY

10.1 Newly Created Intellectual Property.

(a) Ownership of Newly Created Intellectual Property. Inventorship of Intellectual Property invented through the performance of activities under this Agreement shall be determined in accordance with United States patent laws (regardless of where the applicable activities occurred) and ownership of such Intellectual Property shall follow inventorship. Notwithstanding the previous sentence, all right, title and interest in any [***] Regeneron Materials Improvements, [***] Intellia CRISPR-Cas IP, Intellia Materials Improvements, Regeneron Product Inventions, [***], in each case, shall be determined in accordance with the following terms and conditions:

(i) the Parties shall jointly own all [***];

(ii) Intellia shall solely own all Intellia Materials Improvements and Intellia CRISPR-Cas IP; and

(iii) Regeneron shall solely own all Regeneron Materials Improvements, [***] and Regeneron Product Inventions, provided that if at any time (i) any given Target that was previously a Regeneron Target is no longer a Regeneron Target hereunder,(ii) any given Target that was previously a Regeneron Evaluation Target becomes a Declined Target or Intellia Liver Target hereunder or (iii) any given Target that was previously a Regeneron Evaluation Target becomes a Drafted Expired Target pursuant to the last sentence of Section 4.1(a)(iv)(1)hereunder, then in either such case, Regeneron shall assign an equal undivided ownership interest in the Regeneron Product Inventions solely related to such Target [***]).

[***]

(c) Treatment. All Intellia Materials Improvements shall be treated as Intellia Patent Rights or Intellia Know-How, as applicable, for purposes of this ARTICLE 10. All Regeneron Materials Improvements shall be treated as Regeneron Product Inventions for purposes of this ARTICLE 10.

(d) Invention Assignment; Assistance. To the extent that any right, title or interest in or to any Intellectual Property invented under this Agreement vests in a Party or its Affiliate, by operation of law or otherwise, in a manner contrary to the agreed upon ownership as set forth in Section 10.1(a), such Party (or its Affiliate) shall, and hereby does, irrevocably assign to the other Party any and all such right, title and interest in and to such Intellectual Property to the other Party without the need for any further action by any Party. In furtherance of the foregoing, each Party shall, upon request by the other, promptly undertake and perform (or cause its Affiliates and its and their respective employees or agents to promptly undertake and perform) such further actions as are reasonably necessary for Regeneron and Intellia, as between the Parties, to each perfect its title in any such Intellectual Property as set forth in Section 10.1(a), including by causing the execution of any assignments or other legal documentation, or providing the other Party or its patent counsel with reasonable access to any employees or agents who may be inventors of such Intellectual Property.

(e) Joint Ownership [***]. The Parties shall each own an equal, undivided interest in, and, subject to the other applicable provisions of this Agreement [***], each Party shall otherwise enjoy an equal undivided right to exploit any and all [***] including the right to use, practice and otherwise exploit for research, development, manufacturing, commercial and other purposes (including to grant licenses or other similar rights under) [***], without the need to seek consent from or account to the other Party (and, for clarity, neither Party shall be required to obtain the consent of the other Party with respect to the exploitation thereof anywhere in the world and, to the extent that such consent is required in any country in the world, such consent is hereby granted). The foregoing joint ownership rights shall not be construed as granting, conveying or creating any license or other rights to any of the other Party's other intellectual property, unless otherwise expressly set forth in this Agreement. Subject to any licenses granted under this Agreement and subject to the other applicable provisions of this Agreement [***], each Party shall grant and hereby grants its consent to the other Party to exploit, (sub)license, assign [***] and enforce any [***] where such consent is required under Applicable Law, and further shall confirm the foregoing in writing at the other Party's reasonable request. [***]

(f) Other Intellectual Property. The Parties agree that nothing in this Agreement, and no use by a Party of the other Party's Intellectual Property pursuant to this Agreement, shall vest in a Party any right, title or interest in or to the other Party's Intellectual Property, other than the license rights expressly granted hereunder and the assignments expressly made hereunder.

(g) Employees and Consultants. Each Party shall ensure that all of the employees and consultants of each Party that are supporting the performance of its obligations or

exercise of its rights under this Agreement shall have executed agreements assigning to such Party all inventions and intellectual property made during the course of and as the result of their association with such Party with respect to the performance of activities under this Agreement, and obligating the individual upon request to sign any documents to confirm or perfect such assignment and to cooperate in the preparation and prosecution of any Patent Applications claiming or otherwise covering such inventions and obligating the individual to obligations of confidentiality and non-use regarding Confidential Information, that are at least as stringent as those undertaken by the Parties pursuant to Article 13 hereof.

(g) Disclosure. Each Party shall promptly disclose to the other Party all Intellectual Property that (i) is invented by such Party, its employees, agents and consultants pursuant to this Agreement and (ii) that is (r) [***], (s) [***], (t) [***], (u) [***], (v) a Regeneron Product Invention, (w) a Regeneron Materials Improvement, (x) an Intellia Material Improvement, (y) [***] or (z) Intellia CRISPR-Cas IP.

10.2 Prosecution and Maintenance of Patent Rights.

(a) Intellia Patent Rights. Intellia shall use Commercially Reasonable Efforts to prepare, file, prosecute and maintain the Intellia Patent Rights [***]. Intellia shall be solely responsible for all fees and costs incurred for the preparation, filing, prosecution and maintenance of such Intellia Patent Rights [***].

(b) [***]. Intellia shall, through counsel it selects and who has been approved by Regeneron (such approval not be unreasonably withheld, conditioned or delayed), use Commercially Reasonable Efforts to prepare, file, prosecute and maintain Patents and Patent Applications within [***] in the countries mutually agreed upon by the Parties. All such Patents and Patent Applications shall be jointly in the names of both Intellia and Regeneron and Intellia shall bear the costs thereof.

(c) Regeneron Product Inventions. Regeneron shall use Commercially Reasonable Efforts to prepare, file, prosecute and maintain Patents and Patent Applications within Regeneron Product Inventions. All such Patents and Patent Applications shall be in the name of Regeneron and Regeneron shall bear the costs thereof. [***]

(d) Consultation Rights.

(i) Each Party shall confer with and keep the other Party reasonably informed regarding the status of such Party's activities under Section 10.2(a), 10.2(b) or 10.2(c), as applicable (the Party with primary responsibility under each such Section, the "Responsible Party", and the other Party, the "Consultation Party"). The Responsible Party shall have the following obligations with respect to the filing, prosecution and maintenance thereof: [***] the Responsible Party shall consult with the Consultation Party a reasonable time prior to taking or failing to take any substantive action (including making any filings) with respect to such Patent Applications or Patents under Section 10.2(a),10.2(b) or 10.2(c), as applicable, including any

action that would materially affect the scope or validity of rights under any Patent Applications or Patents (such as substantially narrowing or canceling any claim without reserving the right to file a continuing or divisional Patent Application, abandoning any Patent or not filing or perfecting the filing of any Patent Application in any country) and the Responsible Party shall consider in good faith and discuss all reasonable comments thereto from the Consultation Party.

(ii) If either Party desires to file a patent application that discloses the Confidential Information of the other Party (including Confidential Information that is treated by this Agreement as the Confidential Information of both Parties), within a reasonable period of time prior to the anticipated filing date, a notice that specifies the Confidential Information to be disclosed within such patent application shall be provided to the other Party and, upon the request of the other Party, the filing Party shall be obliged at the other Party's discretion to either (A) remove the Confidential Information belonging solely to the other Party [***] from such patent application or (B) provide the other Party reasonably sufficient time (not to exceed [***] days) to file a Patent Application claiming or otherwise covering such Confidential Information (including Confidential Information that is treated by this Agreement as the Confidential Information of both Parties), as applicable (unless any disclosure resulting from such filing under this clause (B) is prohibited by any Third Party obligations of such other Party, in which case this clause (B) shall not be available and only clause (A) shall apply). Confidential Information of Regeneron includes the Regeneron Materials unless subject to the exceptions set forth in Section 13.2. Confidential Information of Intellia includes the Intellia Materials unless subject to the exceptions set forth in Section 13.2.

(e) Step-In Rights.

(i) In the event that the Responsible Party desires not to file or to abandon any Patent Right or Patent Application that would otherwise be subject to Section 10.2(a),10.2(b) or 10.2(c), as applicable, and which results in a material loss of Patent Rights, the Responsible Party shall provide reasonable prior written notice to the Consultation Party of such intention to not to file or to abandon (which notice shall, in any event, be given no later than [***] days prior to the next deadline for any action that may be taken with respect to such Patent or Patent Application with the applicable patent office).

(ii) With respect to any Intellia Patent Rights [***] that Intellia (as the Responsible Party) desires not to file or to abandon which results in a material loss of Patent Rights, Regeneron (as the Consultation Party) shall have the right, but not the obligation, at its expense, to assume responsibility for the filing, prosecution and maintenance of such Patents and Patent Applications within the Intellia Patents Rights in Intellia's (or the applicable Third Party's) name, unless, with respect to any such Patent Applications that are unpublished, Intellia notifies Regeneron that Intellia would prefer to maintain the subject matter of such Patent Application as a trade secret.

(iii) With respect to any Patent or Patent Application within [***] that Intellia (as the Responsible Party) desires not to file or to abandon which results in a material

loss of Patent Rights, Regeneron (as the Consultation Party) shall have the right, but not the obligation, at its expense, to prepare, file, prosecute and maintain such Patents and Patent Applications within [***] in the names of both Parties.

(iv) With respect to any Patent or Patent Application within Regeneron Product Inventions that Regeneron (as the Responsible Party) desires not to file or to abandon which results in a material loss of Patent Rights, Intellia (as the Consultation Party) shall have the right, but not the obligation, at its expense, to prepare, file, prosecute and maintain such Patents and Patent Applications within Regeneron Product Inventions, in the name of Regeneron, unless, with respect to any such Patent Applications that are unpublished, Regeneron notifies Intellia that Regeneron would prefer to maintain the subject matter of such Patent Application as a trade secret.

(f) Regeneron Contributed IP, [***] and Regeneron Materials Improvements. As between the Parties, Regeneron shall have the sole and exclusive right, in its discretion and at its expense, to prepare, file, prosecute and maintain Patents and Patent Applications within the Regeneron Contributed IP and Regeneron Materials Improvements [***], and Intellia shall have no right to do so.

(g) Cooperation. Each Party agrees to reasonably cooperate with the other with respect to the preparation, filing, prosecution and maintenance of Patents and Patent Applications pursuant to this Section 10.2 [***].

(h) Cooperative Research and Technology Enhancement Act. Neither Party shall have the right, without the prior written consent of the other Party, to invoke the Cooperative Research and Technology Enhancement Act of 2004, 35 U.S.C. 103(c)(2)-(c)(3) with respect to any invention that is developed pursuant to this Agreement.

(i) Payments. All undisputed amounts payable by a Party to the other Party under this Section 10.2 shall be paid within [***] days of the payor Party's receipt of invoice, including appropriate supporting documentation (e.g., copies of receipts) from the payee Party with respect to such amounts.

10.3 Administrative Patent Proceedings.

(a) Proceedings. Each Party will notify the other within [***] days after receipt by such Party of information concerning the request for, or filing or declaration of, any reissue, post-grant review, *inter partes* review, derivation proceeding, supplemental examination, interference, opposition, reexamination or other administrative proceeding relating to (i) any Intellia Patent Rights or (ii) any Patent or Patent Application within [***]

(b) Product Infringement. If any proceeding under Section 10.3(a) involves Patents or Patent Applications involved in a Product Infringement under Section 10.4, then notwithstanding the provisions of Section 10.3(a), any decisions on whether to initiate or how to

respond to such a proceeding, as applicable, and the course of action in such proceeding, shall be made by the Party controlling such Product Infringement action pursuant to Section 10.4 in consultation with the other Party [***].

(c) Cost. All out-of-pocket fees and costs incurred in connection with any proceeding under Section 10.3(a) shall be borne [***].

(d) Regeneron Contributed IP, [***] and Regeneron Materials Improvements. As between the Parties, Regeneron shall have the sole and exclusive right, in its discretion and at its expense, to handle any reissue, post-grant review, *inter partes* review, derivation proceeding, supplemental examination, interference, opposition, reexamination or other administrative proceeding relating to (i) Patents and Patent Applications within the Regeneron Contributed IP and (ii) Patents and Patent Applications claiming or otherwise covering Regeneron Materials Improvements [***].

10.4 Third Party Infringement Suits.

(a) Product Infringement. In the event that either Party or any of its Affiliates becomes aware of an actual or suspected infringement or misappropriation by a Third Party of (i) [***] or (ii) [***] (collectively (i) and (ii), "Product Infringement"), the Party that became aware of the Product Infringement shall promptly notify the other Party in writing of this actual or suspected infringement and shall provide such other Party with all available evidence in such Party's possession (and that is not subject to a binding contractual confidentiality obligation to a Third Party)supporting such actual or suspected infringement.

(b) Lead Litigation Party. The Parties will consult and cooperate fully in an effort to determine a mutually agreeable course of action with respect to any Product Infringement; provided, that:

[***] The Party initiating the litigations shall be referred to as the "Lead Litigation Party". The Lead Litigation Party cannot require the non-Lead Litigation Party to join in the suit, provided, however that, [***].

(c) Costs. Except as set forth in the last sentence of Section 10.4(b), all out-of-pocket costs incurred in the connection with the enforcement of a Product Infringement shall be borne [***].

(d) Recoveries. The amount of any recovery from any Product Infringement suit shall first be used to pay each of the Party's reasonable costs, including attorneys' fees, relating to such legal proceedings and the balance of any such recovery shall be retained by the Lead Litigation Party; provided, however, that with respect to any amounts of such recovery from any such Product Infringement suit (other than those amounts used to pay a Party's reasonable costs) that have been awarded (as reimbursement for lost sales or lost royalties) of Regeneron Products, such amounts shall flow to Regeneron or be retained by Regeneron, as applicable, regardless of which Party is the Lead Litigation Party and included in the calculation of Net Sales for purposes of the payment of Royalties pursuant to Section 9.3.

(e) Assistance. In the event either Party initiates a proceeding pursuant to this Section 10.4, without any effect as to who is the Lead Party pursuant to the terms of Section 10.4(b), the other Party shall provide all assistance reasonably requested by the Lead Litigation Party [***].

(f) Settlements; Admissions. The Parties agree not to make any admission concerning claim invalidity or enforceability concerning such Patents or Patent Applications, without the prior written consent of the other Party, such consent not to be unreasonably withheld, conditioned or delayed, until such action is finally resolved, terminated or settled.

(g) Step-In Rights. If either Party declines to initiate or fails to initiate litigation with respect to a particular Product Infringement within [***] days following notice of the Product Infringement, then (absent prior settlement by such Party) the other Party may thereafter commence an infringement action and be the Lead Litigation Party with respect to such Product Infringement after delivering written notice and reasonably sufficient supporting evidence to the non-initiating Party.

(h) Biosimilar Applications. Notwithstanding the foregoing Section 10.4, in the event of a Biosimilar Application, Section 10.5(b) shall control.

(i) Regeneron Contributed IP, [***] and Regeneron Materials Improvements. As between the Parties, Regeneron shall have the sole and exclusive right, in its discretion and at its expense, to handle enforcement relating to the Regeneron Contributed IP, [***] and Regeneron Materials Improvements.

10.5 BPCIA and Biosimilar Applications.

(a) BPCIA Listings. Regeneron will have sole decision-making authority with respect to the determination of which Intellia Patents Rights or Patent Rights Controlled by Regeneron or its Affiliates to submit to a Third Party that files a Biosimilar Application, or any other act of patent information exchange or listing as required by the BPCIA or other similar measure in any other country worldwide (provided that with respect to Intellia Background Patent Rights, if such Patent Rights cover one or more products of Intellia or its (sub)licensees, then any such determination shall discussed in good faith by the Parties with respect to such Patent Rights); provided, that to the extent permitted by Applicable Law, Regeneron shall confer in good faith with Intellia regarding which, if any, such Intellia Patent Rights are listed pursuant to 42 U.S.C. § 262(l)(3)(A) (or any successor legislation) (or other similar measure in any other country worldwide), or otherwise included in any litigation with such a Third Party applicant.

(b) Biosimilar Applications. Notwithstanding anything to the contrary herein, if either Party receives a copy of a Biosimilar Application referencing a Regeneron Product or

otherwise becomes aware that such a Biosimilar Application has been submitted to a Regulatory Authority for marketing approval (such as in an instance described in 42 U.S.C. §262(l)(9)(C)), such Party shall within [***] Business Days notify the other Party. The owner of the relevant Patent Rights shall then seek permission to view the application and related confidential information from the filer of the Biosimilar Application if necessary under 42 U.S.C. §262(l)(1)(B)(iii). If either Party receives any equivalent or similar communication or notice in the United States or any other jurisdiction, either Party shall within [***] Business Days notify and provide the other Party copies of such communication to the extent permitted by Applicable Laws. Promptly thereafter, the Parties shall enter into an appropriate joint defense agreement. Regeneron shall have the right to be the Lead Litigation Party. A Party that is not the Lead Litigation Party in a litigation shall consent to being joined in a litigation or being named as the plaintiff in a litigation if such being joined or named as a plaintiff is necessary to confer standing to bring the litigation or is otherwise necessary for the pendency of the litigation, and in such instance the joined Party shall provide reasonable cooperation and assistance to the Lead Litigation Party, all at the Lead Litigation Party's expense.

(c) Coordination. With regard to issues related to potential Biosimilar Applications referencing a Regeneron Product, the Parties shall conduct and maintain ongoing and regular communications between their legal/intellectual property departments.

10.6 Extensions and Other Protections. Regeneron shall have the sole right to apply for supplementary protection certificates, patent term extensions, patent term restorations or any other exclusivity, including as may be available under the provisions of the Drug Price Competition and Patent Term Restoration Act of 1984 or comparable laws outside the United States of America), in respect of a Regeneron Product. At Regeneron's reasonable request, Intellia will provide reasonable assistance to Regeneron in connection with any such applications. [***]

10.7 Patent Marking. Each Party shall comply with the patent marking statutes in each country in which a Regeneron Product or Reversion Product, as applicable, is made, offered for sale, sold or imported by such Party, its Affiliates or sublicensees.

10.8 Third Party Claims Related to Technology Collaboration, Regeneron Target Evaluation Program, Intellia Target Evaluation Program or Product R&D Program. If either Party or its Affiliates shall learn of a Third Party claim, assertion or certification that the activities under the Technology Collaboration, Regeneron Target Evaluation Program, Intellia Target Evaluation Program or Product R&D Program infringe or otherwise violate the intellectual property rights of any Third Party, then such Party shall promptly notify the other Party in writing of this claim, assertion or certification. As soon as reasonably practical after the receipt of such notice, the Parties shall [***].

10.9 Infringement of Third Party Patent Rights or Third Party Know-How. If any Regeneron Product manufactured, used or sold by Regeneron, its Affiliates or sublicensees becomes the subject of a Third Party's claim or assertion of infringement of a Patent Right or

misappropriation of Know-How, the Party first having notice of the claim or assertion shall promptly notify the other Party. Regeneron shall have the sole right, but not the obligation, to defend any such Third Party claim or assertion of infringement of a Regeneron Product. Intellia shall provide reasonable cooperation and assistance to Regeneron [***].

10.10 Third Party Rights. Notwithstanding the foregoing provisions of this Article 10, the Parties acknowledge and agree that each Party's rights and obligations with respect to any Patent Rights under this Article 10 will be subject to the terms and conditions of any Intellia Existing In-Licenses [***] and as may be amended or restated in accordance with Section 12.4(a)(iv) [***], or New Intellia Platform License [***] and as may be amended or restated in accordance with Section 12.4(a)(iv) [***]. In the event that Regeneron is not fully able to enjoy any rights granted Regeneron under this Article 10 as a result of the provisions of this Section 10.10, then Intellia shall use diligent efforts to afford and allow Regeneron to exercise and enjoy such rights to the maximum extent possible under the applicable Third Party agreement [***].

ARTICLE 11

BOOKS, RECORDS AND INSPECTIONS; AUDITS AND ADJUSTMENTS

11.1 Books and Records. Each Party shall keep proper books of record and account in which full, true and correct entries (in conformity with GAAP) shall be made for the purpose of determining the amounts payable or owed pursuant to this Agreement. Each Party shall keep such books of record and account for at least [***] years following the Contract Year to which they pertain (or such longer period to the extent required by applicable law). Upon reasonable advance notice, each Party shall, and shall cause each of its respective Affiliates to, permit auditors, as provided in Section 11.2, to visit and inspect and examine no more than [***] per Contract Year, during regular business hours and under the guidance of officers of the Party being inspected, the books of record and account of such Party or such Affiliate to the extent relating to this Agreement and, in connection with such audit, to allow such auditors to discuss the results of such audit with, and be advised as to the same by, its and their officers and independent accountants.

11.2 Audits and Adjustments.

(a) Audit. Each Party shall have the right, upon no less than [***] days' advance written notice and at such reasonable places, times and intervals and to such reasonable extent as the Party shall request, not more than [***] during any Contract Year, to have the books of record and account of the other Party to the extent relating to this Agreement for the preceding [***] Contract Years audited by an independent and recognized accounting firm of its choosing under reasonable and reasonably acceptable to such other Party, appropriate confidentiality provisions, for the sole purpose of verifying the accuracy of all financial, accounting and numerical information and calculations provided, and payments made, under this Agreement; provided, that no period may be subjected to audit more than [***] time unless a material discrepancy is found in any such audit of such period, in which case an additional audit of such period may be conducted.

(b) Results; Costs; Confidentiality. The results of any such audit shall be delivered in writing to each Party and shall be final and binding upon the Parties, unless disputed by a Party by notice to the other Party within [***] days after delivery. If a Party over-billed or underpaid an amount due under this Agreement resulting in a cumulative discrepancy during any Contract Year of more than [***], it shall also reimburse the other Party for the costs of the accounting firm to conduct such audit (with the cost of the audit to be paid by the Party initiating the audit in all other cases). Such accountants shall not reveal to the Party requesting the audit the details of its review, except for the results of such review and such information as is required to be disclosed under this Agreement, and shall be subject to the confidentiality provisions contained in Article 13. At the request of the Party being audited prior to the audit, the auditing Party shall cause its accounting firm to enter into a reasonably acceptable confidentiality agreement with the audited Party obligating such accounting firm to retain all such information in confidence pursuant to such confidentiality agreement.

(c) Reconciliation. If any examination or audit of the records described above discloses an overbilling or underpayment of amounts due hereunder, then unless the result of the audit is contested pursuant to Section 11.2(b) above, the Party that over-billed or underpaid shall pay the same to the Party entitled thereto within [***] days after receipt of the written results of such audit pursuant to this Section 11.2.

(d) Disputes. Any disputes with respect to the results of any audit conducted under Section 11.2 above shall be elevated to the JSC.

(e) Binding and Conclusive. Upon the expiration of the [***] year period following the end of any Contract Year, the calculation of the amounts payable with respect to such Contract Year shall be binding and conclusive upon the Parties.

11.3 GAAP. Except as otherwise provided herein, all costs and expenses and other financial determinations with respect to this Agreement shall be determined in accordance with GAAP, as generally and consistently applied.

ARTICLE 12

REPRESENTATIONS, WARRANTIES AND COVENANTS

12.1 Joint Representations and Warranties. Each Party hereto represents and warrants to the other Party, as of the Effective Date, as follows: (a) it is duly organized, validly existing, and in good standing under the laws of its jurisdiction of incorporation; (b) it has full corporate power and authority to execute, deliver, and perform this Agreement, and has taken all corporate action necessary to enter into, deliver, and perform this Agreement; (c) the execution and performance by it of its obligations hereunder will not constitute a breach of, or conflict with, its

organizational documents nor any other material agreement or arrangement, whether written or oral, by which it is bound or requirement of Applicable Laws; (d) this Agreement is its legal, valid and binding obligation, enforceable in accordance with the terms and conditions hereof (subject to Applicable Laws of bankruptcy and moratorium); (e) such Party is not prohibited by the terms of any agreement to which it is a party from performing the Technology Collaboration, Regeneron Target Evaluation Program, Intellia Target Evaluation Program or the Product R&D Program or granting the rights or licenses hereunder; (f) no broker, finder or investment banker is entitled to any brokerage, finder's or other fee in connection with this Agreement or the transactions contemplated hereby based on arrangements made by it or on its behalf; and (g) it has obtained all necessary consents, approvals and authorizations of all Governmental Authorities and other Persons required to be obtained by it as of the Effective Date, as applicable, in connection with the execution, delivery and performance of this Agreement.

12.2 Additional Intellia Representations, Warranties and Covenants of Intellia. Intellia additionally represents and warrants to Regeneron as of the Effective Date that, except as set forth on Schedule 12.2:

(a) There are no claims, judgments or settlements against or owed by Intellia (or any of its Affiliates) and no pending or, to Intellia's knowledge, threatened (in writing) claims or litigation, in each case, to which Intellia (or its Affiliates, or, to its or their knowledge, any of the counterparties to the Intellia Existing Third Party Agreements) is a party or threatened (in writing) party relating to the Intellia Intellectual Property or otherwise challenging Intellia's ownership or control of the Intellia Intellectual Property;

(b) Schedule 1.47 sets forth a true, correct and complete list of Intellia Patent Rights existing as of the Effective Date. To the knowledge of the individuals listed on Schedule 12.2(b) [***], the Intellia Patent Rights exist and are not invalid or unenforceable, in whole or in part;

(c) Intellia solely owns all Intellia Intellectual Property, except for such Intellia IP as Intellia Controls pursuant to the Intellia Existing Third Party Agreements; and Intellia Controls all of the Patent Rights set forth on Schedule 1.47; and with respect to any Patent Rights owned by Caribou (as set forth on Schedule 1.47), Intellia has exclusive rights to license such Patent Rights as set forth in this Agreement and no Third Party (including Caribou and UC) has rights to practice such Patent Rights to make, have made, import, use, sell, offer to sell, develop, manufacture, commercialize, other otherwise exploit CPs within the licensed field as described in the Caribou-Intellia License Agreement;

(d) The Intellia Existing Third Party Agreements constitute all the agreements with Third Parties pursuant to which Intellia has in-licensed, or otherwise obtained rights, with respect to activities hereunder, including CRISPR-Cas, Targets, delivery technologies and CPs and Schedule 1.50 sets forth a true, correct and complete list of all agreements pursuant to which Intellia has in-licensed any Intellectual Property related to activities hereunder, including CRISPR-Cas, Targets, delivery technologies and CPs;

(e) Intellia is not aware of any claim made in writing against it asserting the invalidity, misuse, unregisterability, unenforceability or non-infringement of any of the Intellia Patent Rights;

(f) Neither Intellia nor any of its Affiliates is or has been a party to any agreement with the U.S. federal government or an agency thereof pursuant to which the U.S. federal government or such agency provided funding for the development of the Intellia Intellectual Property;

(g) Neither Intellia nor any of its Affiliates has received any written notification from a Third Party that the use of any Intellia Intellectual Property infringes or misappropriates the Patent Rights or Know-How owned or controlled by such Third Party,;

(h) The Intellia Intellectual Property is not subject to any liens or encumbrances or other grants in favor of any Third Party that conflicts with the rights or licenses granted to Regeneron under this Agreement;

(i) To the knowledge of the individuals listed on Schedule 12.2(b) [***], the conception, discovery, development or reduction to practice of Intellia Intellectual Property has not constituted or involved misappropriation of Intellectual Property or rights of any Person;

(j) Except with respect to lack of agreement among the co-owners of the Intellectual Property covered by the UC Technology Agreement (e.g., Regents of the University of California, University of Vienna and Emmanuelle Charpentier) and their licensees (e.g., Caribou, Intellia, CRISPR Therapeutics and/or Tracr Hematology) resolving ownership of, and licensing rights regarding, the Intellectual Property covered by the UC Technology Agreement, Intellia has a right and license to use the Patent Rights that are licensed to Intellia (directly or indirectly) under the UC Technology License on a worldwide basis, and Intellia is granting a sublicense to such Patent Rights to Regeneron for use on a worldwide basis;; and

(k) Neither Intellia nor any of its Affiliates has granted any rights to any Liver Targets (or any products that may be Directed to any Liver Target) to any Third Party in the Field.

12.3 Covenants.

(a) Each Party hereby covenants to the other Party as follows: (i) it will not during the Term grant any right or license to any Third Party which would be in conflict with the rights granted to the other Party under this Agreement, and (ii) neither Party will use the Patent Rights, Know-How, materials, or Confidential Information of the other Party outside the scope of the licenses and rights granted to it under this Agreement.

(b) Intellia (on behalf of itself and its Affiliates) hereby further covenants to Regeneron that it (and they) shall not assign, transfer, convey or otherwise grant to any Person or otherwise encumber (including through lien, charge, security interest, mortgage, encumbrance or otherwise) any rights to any Intellia Know-How or Intellia Patent Rights, in any manner that would conflict with, or would adversely interfere with, the grant of the rights or licenses to Regeneron hereunder.

[***]

12.4 Intellia Third Party Agreements.

(a) With respect to the Intellia Existing Third Party Agreements, Intellia hereby represents and warrants as of the Effective Date, and with respect to each New Intellia Platform License, Intellia hereby represents and warrants as of the date that Regeneron provides notice that each such New Intellia Platform License should be included in the license granted

hereunder, subject to any exceptions set forth in the applicable written notice required by Section 7.3(d) for such New Intellia Platform License, and, to the extent applicable, covenants during the Term, to Regeneron that:

(i) Intellia has the right, power and authority to grant to Regeneron the rights granted to Regeneron hereunder with respect to the Intellia Existing Third Party Agreements and New Intellia Platform Licenses, as applicable. In particular, the grant of such sublicense requires no consent, waiver or other action [***] by any party to the Intellia Existing Third Party Agreements or New Intellia Platform Licenses (except, with respect to the New Intellia Platform Licenses, as disclosed to Regeneron in writing by Intellia [***]), as applicable, and the rights and obligations of Regeneron set forth in this Agreement do not contravene nor are they inconsistent with or in conflict with the terms of any Intellia Existing Third Party Agreement or New Intellia Platform License, as applicable;

(ii) Intellia has provided to Regeneron an accurate, true and complete copy of each of the Intellia Existing Third Party Agreements and New Intellia Platform Licenses, as applicable, as amended to date, and each of the Intellia Existing Third Party Agreements [***], New Intellia Platform Licenses, as applicable, is in full force and effect and Intellia is not in breach or default in the performance of its obligations under any of the Intellia Existing Third Party Agreements or New Intellia Platform Licenses, as applicable. Intellia has not received any notice from any Third Party of any breach, default or non-compliance of Intellia under the terms of any of the Intellia Existing Third Party Agreements or New Intellia Platform Licenses, as applicable. There have been no amendments or other modification to any of the Intellia Existing Third Party Agreements or New Intellia Platform Licenses, as applicable, except as have been disclosed to Regeneron in writing;

(iii) Intellia shall fulfill all of its material obligations, including its payment obligations, under any Intellia Existing Third Party Agreement and New Intellia Platform License, as applicable; and

(iv) Intellia shall not terminate, waive, amend or take any action or omit to take any action [***] that would alter any of Intellia's rights under any Intellia Existing Third Party Agreement or New Intellia Platform License, as applicable, in any manner that adversely affects, or would reasonably be expected to adversely affect, Regeneron's rights and benefits under this Agreement or would otherwise impose additional obligations on Regeneron. [***]

[***]

12.5 Compliance with Laws. Each Party agrees, in its performance of this Agreement, to comply, and to cause its Affiliates to comply, with all Applicable Laws, including the FCPA, U.S. Export Control Laws and Anti-Corruption Laws. Each Party shall take no action that would cause the other Party to be in violation of the FCPA, U.S. Export Control Laws or any other applicable Anti-Corruption Laws. Further, each Party shall immediately notify the other Party if such Party has any information or suspicion that there may be a violation of the FCPA or any other Anti-Corruption Law in connection with the performance of this Agreement.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

12.6 Disclaimer of Warranties. EXCEPT AS OTHERWISE SPECIFICALLY AND EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, CONCERNING THE SUCCESS OR POTENTIAL SUCCESS OF THE TECHNOLOGY COLLABORATION OR THE DEVELOPMENT, COMMERCIALIZATION, MARKETING OR SALE OF ANY REGENERON PRODUCT. EXCEPT AS EXPRESSLY SET FORTH HEREIN, EACH PARTY EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

12.7 Exclusivity. The Parties hereby agree as follows:

(a) Liver Exclusivity. During the Target Draft Period, except with respect to (i) Intellia Liver Products, (ii) Intellia CPs Directed to Declined Targets, (iii) Intellia CPs Directed to Intellia Reserved Liver Targets, and (iv) the conduct of activities by Intellia hereunder in accordance with an applicable Plan, neither Intellia nor any of its Affiliates shall, on its or their own or with or through a Third Party assist or work with or through any Third Party to, or grant any licenses or other rights to any Third Party to, research, develop, manufacture or commercialize any Liver Product (or any portion thereof, and whether alone or in combination with other products). For clarity, nothing in this Section 12.7(a) shall restrict or limit or otherwise be deemed to restrict or limit Intellia's rights to research, develop, manufacture, commercialize or otherwise exploit (whether alone or through a Third Party) Intellia CPs (other than Regeneron Products) Directed to Declined Targets and Intellia Reserved Liver Targets.

(b) Regeneron Target Exclusivity. Except with respect to (i) the Reserved Ex-Vivo Field and (ii) the conduct of activities by Intellia hereunder in accordance with an applicable Plan, Intellia and its Affiliates will not, on its or their own, or by assisting or working with or through any Third Party (or otherwise granting any licenses or other rights to any Third Party to), research, develop, manufacture or commercialize any CP, whether in the Field or in the Ex-Vivo Field, but not the Reserved Ex-Vivo Field, that is Directed to any Regeneron Target or any Regeneron Evaluation Target. Nothing in this Section 12.7(b) shall be deemed to restrict Intellia or its Affiliates from researching, developing, manufacturing or commercializing any CP Directed to a Target other than a Regeneron Target or Regeneron Evaluation Target [***].

[***]

ARTICLE 13

CONFIDENTIALITY

13.1 Confidential Information.

(a) Each Party and its Affiliates (in such capacity, collectively, the "Receiving Party") shall keep confidential, and other than as provided herein, shall not disclose, directly or indirectly, any proprietary or confidential information, including any proprietary data, inventions, documents, ideas, information, discoveries, or materials, Controlled by the other Party or its Affiliates (in such capacity, collectively, the "Disclosing Party"), whether in tangible or intangible form, including Regeneron Contributed IP and Intellia Know-How, that is disclosed pursuant to this Agreement (the "Confidential Information").

(b) Each Party and its Affiliates shall use the Confidential Information of the other Party and its Affiliates solely for the purpose of exercising its rights and performing its obligations hereunder. For purposes of this Agreement, all proprietary or confidential information disclosed by a Party under the terms of the Confidentiality Agreement between the Parties [***] ("CDA") is hereby deemed Confidential Information of such Party and treated as if disclosed hereunder and shall be subject to the terms of this Agreement.

(c) Each Party covenants that neither it nor any of its respective Affiliates shall disclose any Confidential Information of the other Party to any Third Party except (i) to its directors, officers, employees, agents, consultants and subcontractors to the extent necessary to perform such Party's obligations, or exercise such Party's rights, hereunder, provided such directors, officers, employees, agents, consultants, subcontractors or other Persons are subject to confidentiality obligations applicable to such Confidential Information no less strict than those set forth herein, (ii) as approved by the Disclosing Party hereunder in writing, (iii) as set forth elsewhere in this Agreement, including to subcontractors and sublicensees in accordance with Section 7.2, (iv) to file or prosecute Patent Rights in accordance with this Agreement, (v) to prosecute or defend litigation as permitted by this Agreement, (vi) to any Governmental Authority or other Regulatory Authority in order to gain or maintain approval to conduct clinical trials or to market Regeneron Products, but such disclosure may be only to the extent reasonably necessary to obtain such approvals (subject to the applicable provisions of Articles 3, 4, 5 and 6, as and to the extent applicable), or (vii) as required by Applicable Law, valid order of a court of competent jurisdictions, or other judicial or administrative proceedings of any Governmental Authority requires to be disclosed, provided that in the case of (v), (vi) or (vii) the Receiving Party gives the Disclosing Party reasonable advance notice (if practical) of such required disclosure in sufficient time to enable the Disclosing Party to seek confidential treatment for such information, and provided further that the Receiving Party provides all reasonable cooperation to assist the Disclosing Party to protect such information and limits the disclosure to that information which is required by Applicable Law to be disclosed, and also provided that, such information shall still be treated as Confidential Information for all purposes other than satisfaction of such disclosure requirement.

(d) [***] Regeneron Product Inventions to the extent jointly owned by the Parties as provided in Section 10.1(a), [***] shall be Confidential Information of both Parties [***] may be utilized as provided in (c) above, as well as, the following: (i) used by either Party (or their respective subcontractors, licensees or sublicensees) but not disclosed to Third

Parties except as other Confidential Information may be disclosed by the Receiving Party (a) as expressly permitted herein (including through the publication procedures set forth in Section 13.4) or (b) with the prior written consent of the other Party; (ii) disclosed under commercially reasonable confidentiality terms and solely to the extent reasonably necessary to any potential or actual investor, advisor, lender, investment banker, financing partner, or acquirer; and (iii) disclosed under confidentiality obligations at least as restrictive as, or substantially the same as, those set forth herein (except with respect to the duration of such obligations, which shall not be less than [***] years from the date that the agreement under which such information is disclosed), to any actual or prospective subcontractor, licensee or sublicensee. Notwithstanding the foregoing or anything to the contrary contained herein, (I) Regeneron Materials Improvements, Regeneron Product Inventions to the extent solely owned by Regeneron, and [***] and (II) any other Confidential Information to the extent related to Regeneron Products or Regeneron Targets or Regeneron Evaluation Targets, shall be the Confidential Information of Regeneron, and Intellia Know-How [***], Intellia CRISPR-Cas IP and Intellia Material Improvements shall be the Confidential Information of Intellia. The information in any Option Package delivered by Intellia shall be the Confidential Information of Intellia and the information in any Option Package delivered by Regeneron shall be the Confidential Information of Regeneron.

13.2 Exceptions. Notwithstanding Section 13.1, Confidential Information shall not be deemed to include information (and such information shall not be considered Confidential Information under this Agreement) to the extent that it can be established by written documentation by the Receiving Party that such information: (i) was already in the public domain prior to time of disclosure by the Disclosing Party or becomes publicly known through no act, omission or fault of the Receiving Party or any Person to whom the Receiving Party provided such information; (ii) is or was already lawfully, and not under an obligation of confidentiality owed to the Disclosing Party, in the possession of the Receiving Party prior to the time of disclosure by the Disclosing Party; provided that the Receiving Party did not initially generate such information and assign its rights to such information to the Disclosing Party in accordance with the terms of this Agreement; (iii) is disclosed to the Receiving Party on an unrestricted basis from a Third Party not under an obligation of confidentiality to the Disclosing Party with respect to such information; or (iv) has been independently created by the Receiving Party, as evidenced by written or electronic documentation, without any aid, application or use of the Disclosing Party's Confidential Information. Specific aspects or details of Confidential Information will not be deemed to be within the public knowledge or in the prior possession of a Person merely because such aspects or details of the Confidential Information are embraced by general disclosures in the public domain. Further, any combination of Confidential Information will not be considered in the public domain or in the possession of the Receiving Party merely because individual elements of such Confidential Information are in the public domain or in the possession of the Receiving Party unless the combination and its principles are in the public domain or in the possession of the Receiving Party.

13.3 Injunctive Relief. The Parties hereby acknowledge and agree that the rights of the Parties under this Article 13 are special, unique and of extraordinary character, and that if any Party refuses or otherwise fails to act, or to cause its Affiliates to act, in accordance with the provisions of this Agreement, such refusal or failure may result in irreparable injury to the other Party, the exact amount of which would be difficult to ascertain or estimate and the remedies at law for which would not be reasonable or adequate compensation. Accordingly, if any Party refuses or otherwise fails to act, or to cause its Affiliates to act, in accordance with the provisions of this Article 13, then, in addition to any other remedy which may be available to any damaged Party at law or in equity, such damaged Party will be entitled to seek specific performance and injunctive relief, without posting bond or other security, and without the necessity of proving actual or threatened damages, which remedy such damaged party will be entitled to seek in any court of competent jurisdiction.

13.4 Publications.

(a) Technology Collaboration. Subject to the prior written consent of the JSC and subject further to Sections 13.4(b) and 13.4(c), either Party may issue publications in scientific journals and make scientific presentations regarding [***] with the order and inclusion of Intellia and Regeneron authors to be agreed upon in accordance with International Committee of Medical Journal Editors (ICJME) Standards or other mutually agreed upon applicable standards and in compliance with any applicable rules or policies of the publisher of such publication.

(b) Regeneron Product, Regeneron Targets and Regeneron Product Inventions. Subject to Section 13.4(c), Regeneron shall have the sole right to issue and control all publications in scientific journals and make scientific presentations regarding Regeneron Products, Regeneron Targets and the Regeneron Product Inventions that are solely owned by Regeneron.

(c) Review Rights. If the JSC approves a publication under Section 13.4(a), or Regeneron intends to make a publication under Section 13.4(b), the publishing Party shall provide the non-publishing Party an advance copy of any such proposed publication prior to submission for publication or disclosure. The non-publishing Party shall have a reasonable opportunity to (i) recommend any changes to prevent disclosure of its Confidential Information (including any joint Confidential Information) and (ii) file a Patent Application related to such Confidential Information, if any. The publishing Party shall remove any such Confidential Information, and shall not make any such publication if the non-publishing Party requests a delay of up to sixty (60) days to enable it to file Patent Applications until expiration of such [***] day period.

13.5 Disclosures Concerning this Agreement.

(a) Press Releases. The Parties, acting reasonably, will mutually agree upon the contents of separate press releases announcing this Agreement. Intellia and Regeneron agree

not to (and to ensure that their respective Affiliates do not) issue any other press releases or public announcements concerning this Agreement or any other activities contemplated hereunder without the prior written consent of the other Party (which shall not be unreasonably conditioned, withheld or delayed), except as required by a Governmental Authority or Applicable Law (including the rules and regulations of any stock exchange or trading market on which a Party's (or its parent entity's) securities are or will be traded); provided, that the Party required to disclose such information shall (i) use reasonable efforts to provide the other Party advance notice of such required disclosure and an opportunity to review and comment on such proposed disclosure (which comments shall be considered in good faith by the disclosing Party), (ii) reasonably cooperate with the other Party to assist the other Party to protect the confidential information of the other Party and (iii) limit the disclosure to that information which is required to be disclosed. Notwithstanding the foregoing, without prior submission to or approval of the other Party, either Party may issue press releases or public announcements which incorporate information concerning this Agreement or any activities contemplated hereunder which information was included in a press release or public disclosure which was previously disclosed in accordance with the terms of this Agreement.

(b) Agreement Terms. Except as required by a Governmental Authority or Applicable Law (including the rules and regulations of any stock exchange or trading market on which a Party's (or its parent entity's) securities are or will be traded), or in connection with the enforcement of this Agreement, neither Party (or their respective Affiliates) shall disclose to any Third Party, under any circumstances, any terms of this Agreement [***] that have not been previously disclosed publicly in accordance with this Article 13 without the prior written consent of the other Party, which consent shall not be unreasonably conditioned, withheld or delayed; except for disclosures thereof pursuant to Section 7.3(f) or (i) to potential or actual investors, advisors, lenders, investment bankers, financing partners, acquirers, subcontractors, licensees or sublicensees that are bound by obligations of confidentiality and nonuse substantially equivalent in scope to those included herein with a term of at least [***] years (but of shorter duration if customary in connection with any disclosure to a potential or actual investor, advisor, lender, investment banker or financing partner) or (ii) to Persons that are identified in Section 13.1(c)(i) who are subject to the confidentiality obligations specified therein; provided that, in the event of any such disclosure to a Third Party who is a potential or actual investor, advisor, lender, financing partner, acquirer, licensee or sublicensee (A) this Agreement shall only be initially disclosed in the Redacted Agreement form to such Third Party and its advisors and (B) after negotiations with any such Third Party have progressed so that the Disclosing Party reasonably and in good faith believes it will execute a definitive agreement with such Third Party within [***] Business Days, this Agreement may be disclosed in an unredacted form to such Third Party and its advisors as and to the extent relevant to such Third Party [***].

(c) Communications General. The Parties, through the JSC, shall establish mechanisms and procedures to ensure that there are coordinated timely corporate communications relating to this Agreement, including the Regeneron Products.

(d) Publicly Traded Company. Intellia acknowledges that Regeneron, as a publicly traded company, is legally obligated to make timely disclosures of all material events relating to its business. Regeneron acknowledges that in the future, Intellia may become a publicly traded company, and upon such occurrence, Intellia shall be legally obligated to make timely disclosures of all material events relating to its business. Therefore, the Parties acknowledge that either or both Parties may be obligated to file a copy of this Agreement with the United States Securities and Exchange Commission or its equivalent (the "SEC"). The Parties agree that the form of the redacted version of this Agreement shall be mutually agreed by the Parties in good faith within [***] days of the Effective Date (the "Redacted Agreement") may be used as its filing (or submission) of this Agreement to the SEC, and the Parties shall cooperate with one another and use reasonable efforts to obtain confidential treatment of confidential information (including any information that constitutes a trade secret or a sensitive commercial term), including with respect to any comments received from the SEC with respect to the proposed redactions. The Parties further agree that, following the initial filing (or submission) of the Redacted Agreement, the filing Party will (i) promptly deliver to the non-filing Party any written correspondence received by the filing Party or its representatives from the SEC with respect to such confidential treatment request and promptly advise the non-filing Party of any other communications between the filing Party or its representatives with the SEC with respect to such confidential treatment request, allowing a reasonable time for the non-filing Party to review and comment; (ii) upon the written request of the non-filing Party, request an appropriate extension of the term of the confidential treatment period; and (iii) if the SEC requests any changes to the redactions set forth in the Redacted Agreement, to the extent reasonably practicable, not agree to any changes to the Redacted Agreement without first discussing such changes with the non-filing Party and taking the non-filing Party's comments into consideration when deciding whether to agree to such changes. In addition, each Party will provide the other Party with an advance copy of any securities filings in which the Agreement is discussed or disclosed, in each case only to the extent describing this Agreement or referencing the other Party, allowing a reasonable time (but in no event less than [***] Business Days) for the other Party to review and comment, and will reasonably consider and, to the extent permitted by a Governmental Authority, or Applicable Law (including the rules and regulations of any stock exchange or trading market on which a Party's (or its parent entity's) securities are or will be traded), incorporate the other Party's timely comments thereon [***].

ARTICLE 14
INDEMNITY

14.1 Indemnity and Insurance.

(a) Intellia's Indemnification Obligations. Intellia will indemnify and hold harmless Regeneron, its Affiliates and their respective officers, directors, employees and agents ("Regeneron Indemnitees") from and against all loss, liabilities, damages, penalties, fines and expenses, including reasonable attorneys' fees and costs (collectively, "Damages"), incurred by any Regeneron Indemnitee as a result of a Third Party's claim, action, suit, settlement, or proceeding (each, a "Claim") against a Regeneron Indemnitee that arises out of or results from:

(i) [***] of Intellia or any other Intellia Indemnitee(s) in its performance under the Technology Collaboration, Regeneron Target Evaluation Program, the Intellia Target Evaluation Program or Product R&D Program or other activity under this Agreement;

(ii) breach by Intellia of this Agreement (including the inaccuracy of any representation or warranty made by Intellia in this Agreement); or

(iii) the research, development, manufacture or commercialization of any CP by or on behalf of Intellia (or any of its Affiliates or (sub)licensees) (but excluding such activities, if any, conducted by or on behalf of Regeneron or its Affiliate);

in each case, except to the extent such Claim (A) arises out of or results from (1) a breach of this Agreement by Regeneron (including the inaccuracy of any representation or warranty made by Regeneron in this Agreement), or (2) [***] by Regeneron or any other Regeneron Indemnitee or (B) is subject to Regeneron's indemnification obligations under Section 14.1(b)(i) or (ii) below.

(b) Regeneron's Indemnification Obligations. Regeneron will indemnify and hold harmless Intellia, its Affiliates and their respective officers, directors, employees and agents ("Intellia Indemnitees") from and against all Damages incurred by any Intellia Indemnitee as a result of a Claim against an Intellia Indemnitee that arises out of or results from:

(i) [***] of any Regeneron or any other Regeneron Indemnitee(s) in its performance under the Technology Collaboration, Regeneron Target Evaluation Program, the Intellia Target Evaluation Program or Product R&D Program or other activity under this Agreement;

(ii) breach by Regeneron of this Agreement (including the inaccuracy of any representation or warranty made by Regeneron in this Agreement); or

(iii) the research, development, manufacture or commercialization of any Regeneron Product by or on behalf of Regeneron (or any of its Affiliates) (but excluding such activities conducted by or on behalf of Intellia or its Affiliate);

in each case, except to the extent such Claim (A) arises out of or results from (1) a breach of this Agreement by Intellia (including the inaccuracy of any representation or warranty made by Intellia in this Agreement), or (2) [***] by Intellia or any other Intellia Indemnitee or (B) is subject to Intellia's indemnification obligations under Section 14.1(a)(i) or (ii) above.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

14.2 Indemnity Procedure.

(a) Notification. The Party entitled to indemnification under this ARTICLE 14 (an "Indemnified Party") shall notify the Party potentially responsible for such indemnification (the "Indemnifying Party") within [***] Business Days of becoming aware of any Claim asserted or threatened in writing against the Indemnified Party which could give rise to a right of indemnification under this Agreement; provided, however, that the failure to give such notice shall not relieve the Indemnifying Party of its obligations hereunder except to the extent that such failure materially prejudices the Indemnifying Party.

(b) Control of Defense. If the Indemnifying Party elects in writing to the Indemnified Party that it will assume control of the defense of such Claim, then except as otherwise set forth in Section 10.9, the Indemnifying Party shall have the right to defend, at its sole cost and expense, such Claim by all appropriate proceedings, which proceedings shall be prosecuted diligently by the Indemnifying Party to a final conclusion or settled at the discretion of the Indemnifying Party; provided, however, that the Indemnifying Party may not enter into any compromise or settlement unless (i) such compromise or settlement includes as an unconditional term thereof, the giving by each claimant or plaintiff to the Indemnified Party of a release from all liability in respect of such claim; and (ii) the Indemnified Party consents to such compromise or settlement, which consent shall not be conditioned, withheld or delayed unless such compromise or settlement involves (A) any admission of legal wrongdoing by the Indemnified Party, (B) any payment by the Indemnified Party that is not indemnified hereunder or (C) the imposition of any equitable relief against the Indemnified Party. If the Indemnifying Party does not elect to assume control of the defense of such Claim within [***] days of its receipt of notice thereof, or if the Indemnifying Party elects in writing to the Indemnified Party to cease maintaining control of the defense of such Claim, the Indemnified Party shall have the right, at the expense of the Indemnifying Party, upon at least [***] Business Days' prior written notice to the Indemnifying Party of its intent to do so, to undertake the defense of such Claim for the account of the Indemnifying Party (with counsel reasonably selected by the Indemnified Party and approved by the Indemnifying Party, such approval not unreasonably conditioned, withheld or delayed), provided, that the Indemnified Party shall keep the Indemnifying Party apprised of all material developments with respect to such Claim and promptly provide the Indemnifying Party with copies of all correspondence and documents exchanged by the Indemnified Party and the opposing party(ies) to such Claim. The Indemnified Party may not compromise or settle such Claim without the prior written consent of the Indemnifying Party, such consent not to be unreasonably conditioned, withheld or delayed.

(c) Indemnified Party's Participation. The Indemnified Party shall cooperate with the Indemnifying Party in, and may participate in, but not control, any defense or settlement of any Claim controlled by the Indemnifying Party pursuant to this Section 14.2 and shall bear its own costs and expenses with respect to such participation; provided, however, that the Indemnifying Party shall bear such costs and expenses if counsel for the Indemnifying Party shall have reasonably determined that such counsel may not properly represent both the Indemnifying Party and the Indemnified Party.

14.3 Insurance. During the Term and for a minimum period of [***] years thereafter and for an otherwise longer period as may be required by Applicable Law, each of Regeneron and Intellia will (i) use Commercially Reasonable Efforts to procure and maintain appropriate commercial general liability and product liability insurance in amounts appropriate for the industry and considering the activities being conducted or (ii) with respect to Regeneron as of the Effective Date, or Intellia as such time as Intellia and its Affiliates have annual revenue in excess of [***], procure and maintain adequate insurance by means of self-insurance in such amounts and on such terms as are consistent with normal business practices of large pharmaceutical companies in the life sciences industry. Such insurance shall insure against liability arising from this Agreement on the part of Regeneron or Intellia, respectively, or any of their respective Affiliates, due to injury, disability or death of any person or persons, or property damage arising from activities performed in connection with this Agreement. It is understood that such insurance shall not be construed to create a limit of either Party's liability with respect to its indemnification obligations under Section 14.1 or otherwise. Any insurance proceeds received by a Party in connection with any Damages shall be retained by such Party and shall not reduce any obligation of the other Party.

ARTICLE 15
FORCE MAJEURE

Neither Party will be held liable or responsible to the other Party nor be deemed to have defaulted under or breached this Agreement for failure or delay in fulfilling or performing any term of this Agreement when such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party including embargoes, acts of terrorism, acts of war (whether war be declared or not), insurrections, change in Applicable Law, strikes, riots, civil commotions or acts of God ("Force Majeure"). Such excuse from liability and responsibility shall be effective only to the extent and duration of the event(s) causing the failure or delay in performance and provided that the affected Party has not caused such event(s) to occur. The affected Party will notify the other Party of such Force Majeure circumstances as soon as reasonably practical and will make every reasonable effort to mitigate the effects of such Force Majeure circumstances.

ARTICLE 16
TERM AND TERMINATION

16.1 Term. The "Term" of this Agreement shall begin on the Effective Date and will expire on the expiration of the final Product Term, unless this Agreement is earlier terminated in its entirety in accordance with this ARTICLE 16, in which event the Term shall end on the effective date of such termination. For purposes of this ARTICLE 16, the "Product Term" shall mean, with respect to a given Regeneron Product, the expiration of the Royalty Term with respect to such Regeneron Product. Upon the expiration of the Product Term for a given Regeneron Product the licenses and rights under Sections 6.3 and 6.4 with respect to such Regeneron Product shall become fully paid-up, perpetual and irrevocable licenses.

16.2 Termination for Insolvency. A Party shall have the right to terminate this Agreement in its entirety immediately upon written notice to the other Party if, at any time, (a) the other Party shall file in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of the other Party or of its assets, or (b) if the other Party shall be served with an involuntary petition against it, filed in any insolvency proceeding, and such petition shall not be dismissed within [***] days after the filing thereof, or (c) if the other Party shall propose or be a party to any dissolution or liquidation proceedings, or (d) if the other Party shall make an assignment for the benefit of creditors. In the event that this Agreement is terminated or rejected by a Party or its receiver or trustee under applicable bankruptcy laws due to such Party's bankruptcy, then all rights and licenses granted under or pursuant to this Agreement by such Party to the other Party are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code and any similar laws in any other country, licenses of rights to "intellectual property" as defined under Section 101(52) of the U.S. Bankruptcy Code. The Parties agree that all intellectual property rights licensed hereunder, including any Patent Rights in any country of a Party covered by the license grants under this Agreement, are part of the "intellectual property" as defined under Section 101(35(A)) of the Bankruptcy Code subject to the protections afforded the non-terminating Party under Section 365(n) of the Bankruptcy Code, and any similar law or regulation in any other country.

16.3 Termination of Regeneron Target by Regeneron for Convenience. At any time, upon [***] days advanced written notice, on a Regeneron Target-by-Regeneron Target basis, Regeneron may terminate this Agreement with respect to such Regeneron Target; provided, that, Regeneron's obligation to use Commercially Reasonably Efforts to develop and commercialize Regeneron Products with respect to a given Regeneron Target shall be immediately suspended (and shall be of no further force or effect) following its delivery of such a notice of termination with respect to such terminated Regeneron Target. For clarity, this Agreement will remain in full force and effect with respect to any other Regeneron Target not terminated. In the event that Regeneron terminates all Regeneron Targets pursuant to this Section 16.3, then this Agreement shall terminate in its entirety.

16.4 Breach of the Agreement.

(a) Either Party may terminate this Agreement in accordance with the remainder of this Section 16.4, either in its entirety or with respect to the Technology Collaboration or one or more Regeneron Targets, if, as applicable, the other Party commits a material breach of this Agreement (in its entirety or with respect to the Technology Collaboration or with respect to one or more Regeneron Targets, as applicable), [***] as follows:

(i) if such material breach of this Agreement is with respect to the Agreement in its entirety, then this Agreement may be terminated in its entirety (but only if the material breach affects the entirety of this Agreement);

(ii) if such material breach of this Agreement is with respect to the Technology Collaboration, then this Agreement may be terminated only with respect to the Technology Collaboration; or

(iii) if such material breach of this Agreement is with respect to one or more Regeneron Targets, then this Agreement may be terminated only with respect to such Regeneron Target(s). For clarity, when a material breach relates only to certain Regeneron Targets, termination pursuant to this Section 16.4(a)(iii) shall be solely with respect to the relevant Regeneron Target(s) to which the material breach relates.

(b) In the event that one Party (the "Alleging Party") believes that the other Party (the "Alleged Party") has committed a material breach, the Alleging Party shall provide written notice ("Breach Notice") to the Alleged Party describing in an appropriate detail the nature of such material breach and whether the Alleging Party proposes to terminate this Agreement pursuant to Section 16.4(a)(i), 16.4(a)(ii), or 16.4(a)(iii).

(i) The Alleged Party shall have [***] days from its receipt of the Breach Notice to cure such material breach; provided that if such breach is not curable within the foregoing cure period, then such cure period will be extended for a period of up to [***] additional days (for a total cure period of [***] days) if the Alleged Party prepares and provides to the Alleging Party a reasonable written plan for curing such breach and uses Commercially Reasonable Efforts to cure such breach in accordance with such written plan. In the event such breach is not cured within such [***] day period, as applicable, this Agreement or portion thereof, as applicable, may be terminated immediately by the Alleging Party.

(c) In the event of a good faith dispute as to the existence or materiality of a breach specified in such notice, including any good faith dispute as to payments due under this Agreement, and the Alleged Party provides the Alleging Party notice of such dispute within such [***] day period, the cure period will be tolled from the date the Alleged Party notifies the Alleging Party of such good faith dispute and through the diligent resolution of such dispute in accordance with the applicable provisions of this Agreement (provided that if such dispute relates to payment, the cure period will only apply with respect to payment of disputed amounts, and not with respect to undisputed amounts). It is understood and agreed that during the pendency of such dispute, all of the terms and conditions of this Agreement will remain in effect and the Parties will continue to perform all of their respective obligations, and retain their respective rights, hereunder. Termination will become effective, if at all, following a final and conclusive determination pursuant to Section 17.1 (c)that the Alleged Party committed such material breach and failed to cure the same during the applicable cure period.

16.5 Termination for IP Challenge. If Regeneron or any of its Affiliates Challenges an Intellia Background Patent Right or any Patent Rights within the Intellia CRISPR-Cas IP in any country in the world (such Patent Right, a "Challenged Patent Right"), then Intellia may, following written notice to Regeneron and provided that Regeneron or its Affiliate (and without reference to Section 17.1(b)) does not withdraw such Challenge within [***] days of receipt of such notice, in its sole discretion either (a) exclude such Challenged Patent Right from the scope of the Patent Rights licensed hereunder or (b) except to the extent the following is unenforceable under the law of a particular jurisdiction where a patent application within the Challenged Patent Rights is pending or a patent within the Challenged Patent Rights is issued, terminate this Agreement solely with respect to all Regeneron Products Directed to a Regeneron Target that is Covered by such Challenged Patent Right, by providing written notice of termination to Regeneron. For purposes of this Section 16.5, (i) "Challenge" means [***].

16.6 Termination for Suspension of Development.

(a) On a Regeneron Target-by-Regeneron Target basis, if during the period after selection of such Target as a Regeneron Target but prior to the First Commercial Sale of a Regeneron Product Directed to such Regeneron Target, Regeneron elects to permanently discontinue the development of all Regeneron Products Directed to such Regeneron Target (other than pursuant to Section 4.2(b)) it shall provide written notice to Intellia which will automatically be treated as Regeneron's submission of written notice pursuant to Section 16.3 with respect to such Regeneron Target (a "Discontinuation Notice").

(b) [***].

(c) Within [***] days of Regeneron's provision of the Discontinuation Notice [***], Intellia may deliver written notice to Regeneron [***] indicating that that the Agreement be terminated with respect to such Regeneron Target ("Termination for Suspension Notice").

(d) If Intellia delivers the Termination for Suspension Notice in accordance with Section 16.6(c) for the applicable Regeneron Target, then this Agreement shall terminate solely with respect to such Regeneron Target, which termination shall be effective [***] days after the delivery of the Termination for Suspension Notice [***]. If Intellia does not deliver the Termination for Suspension Notice in accordance with Section 16.6(c) for the applicable Regeneron Target, then this Agreement shall continue in full force and effect with respect to such Regeneron Target.

(e) For clarity, and notwithstanding anything to the contrary herein, this Section 16.6 shall be of no further force or effect, on a Regeneron Target-by-Regeneron Target basis, from and after the First Commercial Sale of a Regeneron Product Directed to such Regeneron Target.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

16.7 Effects of Termination of Agreement with respect to a given Regeneron Target. Without limiting any other legal or equitable remedies that either Party may have, if this Agreement is terminated for any reason, then the provisions of this Section 16.7 will apply (but if this Agreement is terminated in part solely with respect to a Regeneron Target, then this Section 16.7 shall apply only with respect to such Terminated Regeneron Target) (each Regeneron Target that is subject to such termination, a "Terminated Regeneron Target"):

(a) The licenses granted to the Parties with respect to the Terminated Regeneron Target(s) under Sections [***], as and to the extent applicable, shall terminate and, as and to the extent applicable, the Product R&D Program pertaining to the Terminated Regeneron Target shall immediately terminate. In addition to the licenses that terminate pursuant to this Section 16.7(a) above and Section 16.8(a) below, in the event this Agreement is terminated as a whole, the licenses granted to the Parties under Sections [***] shall terminate.

(b) All Intellia Options granted under this Agreement will terminate with respect to any Terminated Regeneron Targets, and all Regeneron Options and all Intellia Options shall terminate upon termination of this Agreement as a whole (unless earlier expired or terminated in accordance herewith).

(c) Effective upon the effective date of termination, Regeneron will grant (without any further action required on the part of Intellia) to Intellia, a worldwide license, with the right to grant sublicenses through multiple tiers (in accordance with Section 7.2(c), provided further that Intellia shall only have the right to sublicense to Third Parties for those Reversion Products that are Intellia CPs), under the applicable Reversion IP, to research, develop, make, have made, use, sell, offer for sale, import and commercially exploit the applicable Reversion Products Directed to the Terminated Regeneron Target (i.e., such license grant is specific to Reversion Products Directed to the Terminated Regeneron Target) for use in the Reversion Field (the "Reversion License"), subject to the following terms and conditions:

(i) For purposes hereof, "Reversion IP" means any Patents or Know-How Controlled by Regeneron or any its Affiliates as of the date of notice of termination that [***] For purposes hereof, "Reversion Products" shall mean [***].

(ii) The Reversion License shall be (i) exclusive (even as to Regeneron) with respect to all Reversion IP [***], and (ii) non-exclusive with respect to all other Reversion IP [***].

(iii) Except as expressly provided for in this Section 16.7(c), nothing in this Agreement grants Intellia any right, title or interest in or to any intellectual property rights, materials or Confidential Information of Regeneron or any of its Affiliates (either expressly or by implication or estoppel) with respect to the Terminated Regeneron Targets and Reversion Products (except, to the extent applicable, Sections 3.6, 4.1(a)(v)(3)(c) or 10.1(b)). Except as expressly provided in this Section 16.7(c), Intellia will not be deemed by this Section 16.7(c) to have been granted any license or other rights to Regeneron's Patent Rights or Know-How, either expressly or by implication, estoppel or otherwise (except, to the extent applicable, Sections 3.6, 4.1(a)(v)(3)(c) or 10.1(b)).

(iv) The Reversion License shall be subject to the payment by Intellia to Regeneron of the royalties on Net Sales of a Reversion Product at the rate set forth in the table below based on the stage of the most advanced Reversion Product Directed to the applicable Terminated Regeneron Target under such Reversion License as of the effective date of termination with respect to such Terminated Regeneron Target:

Stage of Development	Royalty Rate
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

(v) Royalties due under Section 16.7(c)(v) will be paid by Intellia to Regeneron and subject to and in accordance with the terms and conditions of Section 9.6, 9.7, 9.8, 9.9, 9.10, 9.11 and 9.12 and Article 11 and the defined term "Net Sales", applied *mutatis mutandis* with references to (1) "Regeneron" being deemed to be references to "Intellia", "Intellia" being deemed to be references to "Regeneron," (3) "Regeneron Product" being deemed to be references to "Reversion Products" and (4) and other defined terms used in such Sections being appropriately modified consistent with the foregoing. Royalties shall be due and payable on a Reversion Product-by-Reversion Product basis for a period of twelve (12) years after first commercial sale of such Reversion Product, provided that if during such period there is no valid claim of any Patents within such Reversion IP that claims or covers such Reversion Product, then the applicable royalty rate shall be reduced by [***].

(vi) In addition to the royalties due under Section 16.7(c)(v), Intellia will be responsible for [***].

(vii) Intellia will indemnify and hold harmless the Regeneron Indemnitees from and against all Damages incurred by any Regeneron Indemnitee as a result of a Claim against a Regeneron Indemnitee that arises out of or results from any research, development, manufacture or commercialization by Intellia (or its Affiliates or sublicensees) after the effective date of termination with respect to the Terminated Regeneron Target or Reversion Product or Intellia's or its Affiliates or sublicensees exercise of a Reversion License or election not to take a license to In-Licensed Reversion IP. Section 14.2 shall apply *mutatis mutandis* to any indemnification matters arising under this Section 16.7(c)(vii).

(d) Regeneron will, as promptly as practicable, and subject to Intellia's reasonable assistance, to the extent legally permissible (including to the extent permitted under Regeneron's obligations to Third Parties on the effective date of termination), (i) use Commercially Reasonable Efforts to transfer and assign to Intellia or Intellia's designee Regeneron's right, title and interest in and to all material governmental or regulatory filings and

approvals (including all Regulatory Approvals and pricing approvals, in all cases, specifically and exclusively relating to the development, manufacture or commercialization of the Reversion Products for use in the Reversion Field, and (ii) transfer to Intellia or Intellia's designee copies of all material clinical data and safety data in Regeneron's possession and Control to the extent specifically and exclusively related to and required for the research, development, manufacture or commercialization of the Reversion Products in each case of (i) and (ii) to the extent owned by Regeneron or its Affiliates as of the Effective Date of termination. In the event of (x) failure to obtain assignment or (y) with respect to regulatory items that would otherwise fall within (i) or (ii) but for such materials not being specifically and exclusively related to the Reversion Products, but nonetheless which are necessary for the development, manufacture or commercialization of the Reversion Products above, in each of (x) and (y) Regeneron hereby consents and grants to Intellia the right to reference any such item solely with respect to the exercise of the Reversion License for Reversion Products.

(e) If Regeneron or its Affiliates are manufacturing GMP finished product with respect to Reversion Products on the effective date of termination, at Intellia's option (which must be exercised in writing to Regeneron within [***] days of the effective date of termination), Regeneron or its Affiliates will use Commercially Reasonable Efforts to supply such finished product (but solely in the form as such Reversion Product was being manufactured by Regeneron as of the effective date of termination) to Intellia at Regeneron's fully burdened cost [***], until the earlier of (i) such time as Intellia has procured or developed its own source of such GMP finished product supply, or (ii) [***] months following the effective date of termination. The Parties will promptly negotiate a supply and related quality agreement to govern the specific terms and conditions of such supply.

(f) If Intellia so requests within [***] days of the effective date of termination, Regeneron will use Commercially Reasonable Efforts, to the extent legally permissible (including to the extent permitted under Regeneron's obligations to Third Parties on the effective date of termination), to assign to Intellia any Third Party agreements to which Regeneron or its Affiliates is a party that are specific to and exclusively relating to the development, manufacture or commercialization of the Reversion Products to which Regeneron is a party, subject to any required consents of such Third Party.

(g) Regeneron will use Commercially Reasonable Efforts, and subject to Intellia's reasonable assistance, to the extent legally permissible (including to the extent permitted under Regeneron's obligations to Third Parties on the effective date of termination), to promptly transfer and assign (or, if applicable, will cause its Affiliates to assign) to Intellia all of Regeneron's (and such Affiliates') worldwide right, title and interest in and to any registered trademarks or registered internet domain names that are specific to and exclusively used for the terminated Reversion Products (it being understood that the foregoing will not include any trademarks or internet domain names that contain the corporate or business name(s) of Regeneron or any of its Affiliates or any other products of Regeneron or any of its Affiliates) to the extent owned by Regeneron or its Affiliates as of the Effective Date of termination.

(h) Regeneron will use Commercially Reasonable Efforts to, subject to any agreements with Third Parties and subject to Intellia's reasonable assistance, transition to Intellia any ongoing clinical trials for Regeneron Products Directed to the Terminated Regeneron Target that are being conducted by Regeneron as of the effective date of termination, and following such transition, Intellia shall be fully responsible for the conduct of such ongoing clinical trials (provided that, for clarity, the licenses granted to Regeneron hereunder shall survive until such ongoing clinical trials are so transitioned to Intellia solely to the limited extent necessary to enable Regeneron (and its Affiliates and sublicensees) to continue such clinical trials during such transition period).

(i) Upon termination of this Agreement, the licenses granted to Regeneron hereunder shall survive for a period of [***] months solely to the limited extent necessary to enable Regeneron (and its Affiliates and sublicensees) to, at their discretion, during such [***] month period following the effective date of termination, sell-off any Regeneron Products then remaining in its or its Affiliates' existing inventory or that are works-in-process as of the effective date of termination, in accordance with this Agreement. Following the end of such [***] month period, Regeneron will transfer to Intellia any inventory of the Reversion Products Controlled by Regeneron or its Affiliates as of the termination date at Regeneron's fully burdened cost.

(j) Intellia will reimburse Regeneron the reasonable costs incurred by Regeneron in connection with Regeneron's performance of this Section 16.7, within [***] days after receipt of an invoice therefor, provided that in the case of Intellia's termination for Regeneron's material breach pursuant to Section 16.4, Intellia shall have no such obligation to reimburse Regeneron hereunder and Regeneron shall be solely responsible for all such costs.

(k) For clarity, in the event that Intellia does not accept delivery of any of the materials or items that Regeneron is obligated to deliver under this Section 16.7, or does not provide reasonable assistance with respect thereto, Regeneron shall have no further obligation to undertake any such activities under this Section 16.7.

(l) In addition, notwithstanding the foregoing provisions of this Section 16.7, in the event of any good faith, inadvertent failure by Regeneron to provide any materials or items in this Section 16.7 to Intellia, Regeneron shall not be in breach of its obligations under this Section 16.7 (provided that in such case, Regeneron shall use Commercially Reasonable Efforts to provide such items in order to cure such failure in accordance with the provisions of this Section 16.7, as applicable, as soon as reasonably practicable after receipt of an undisputed written notice thereof from Intellia). All of the foregoing materials, items and grants provided by Regeneron (or its Affiliates, as applicable) pursuant to this Section 16.7 shall be provided on an "as-is" basis (without any representations or warranties).

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

16.8 Effects of Termination of Agreement with respect to a Technology Collaboration. Without limiting any other legal or equitable remedies that either Party may have, if this Agreement is terminated for any reason with respect to the Technology Collaboration, then the provisions of this Section 16.8 will apply (but solely with respect to the Technology Collaboration).

(a) The licenses granted to the Parties under Section 3.5 shall terminate; and

(b) The Technology Collaboration shall immediately terminate.

16.9 Regeneron Reduction of Payments in lieu of Termination. In the event that Regeneron notifies Intellia in writing that Intellia has materially breached this Agreement such that Regeneron would have a right of termination pursuant to Section 16.4 as a result of such material breach (including the application of Section 16.4(b)) [***], then, on a Regeneron Target-by-Regeneron Target basis to which such material breach relates, in lieu of Regeneron exercising such termination right pursuant to Section 16.4, Regeneron may elect to have this Agreement continue in full force and effect without such termination (which election shall be made in writing by Regeneron no later than [***] days of such determination thereof); provided, however, that if Regeneron so elects to continue this Agreement in full force and effect without such termination, then (i) solely with respect to such Regeneron Target for which Intellia has materially breached this Agreement, any milestone payments and royalty payments [***] for Regeneron Products Directed to such Regeneron Target as set forth in Article 9, that would otherwise be payable by Regeneron hereunder shall, from and after the date of such notice from Regeneron, be reduced by [***] for the remainder of the Term and (ii) solely if clause (i) applies, Regeneron shall not be entitled to seek any monetary damages against Intellia under a breach of contract or other claim to the extent that such damages arise from or are a result of the material breach giving rise to Regeneron's termination right [***].

16.10 Survival of Obligations. Expiration or termination of this Agreement shall not relieve the Parties of any obligation accruing prior to such expiration or termination. Any expiration or termination of this Agreement shall be without prejudice to the rights of either Party against the other accrued or accruing under this Agreement prior to expiration or termination. Except for the following provisions (which shall survive expiration or termination of this Agreement), upon expiration or termination of this Agreement, the rights granted to the Parties hereunder and obligations of the Parties hereunder shall terminate, and this Agreement shall cease to be of further force or effect: (I) Sections 3.3(b), 3.6, 4.1(a)(iv)(1) (last sentence only), 4.1(a)(iv)(5), 4.1(a)(v)(3)(c), 5.1(h), 5.1(i), 7.1, 7.2(a), 7.2(c), 7.3(e) and 7.3 (f) (in each case under such Sections 7.3(e) and 7.3(f), only in the event of expiration, but not termination, of this Agreement), 7.5 (for the period set forth therein), 7.7, 7.12, 9.8 (with respect to the final Quarter of the Term), 9.9, 9.10, 9.11, 9.12, 10.1 and 12.6, (II) Sections 10.2, 10.3, 10.4, 10.6, 10.7, 10.8, and 10.9 solely with respect to Intellectual Property invented under this Agreement that is jointly owned by the Parties pursuant to the terms of this Agreement, and (III) Articles 1 (to the extent necessary to give effect to other surviving provisions), 11, 13, 14, 15, 16 and 17. In addition, the other applicable provisions of Article 9 will survive such expiration or termination of this Agreement to the extent required to make final reimbursements, reconciliations or other payments incurred or accrued prior to the date of termination or expiration or after such

termination or expiration with respect to Section 16.7 (including any milestone payments and royalties that become due as a result of Section 16.7(i)). For any surviving provisions requiring action or decision by a Committee or an Executive Officer, each Party will appoint representatives to act as its Committee members or Executive Officer, as applicable.

16.11 Return of Confidential Information. Confidential Information disclosed by the Disclosing Party, including permitted copies, shall remain the property of the Disclosing Party. Upon the expiration or termination of this Agreement (or the expiration of the relevant Product Term, as applicable), the Receiving Party shall promptly return to the Disclosing Party or, at the Disclosing Party's request, destroy, all documents or other tangible materials representing the Disclosing Party's Confidential Information (or any designated portion thereof) pertaining to the expired or terminated subject matter and, if expressly requested in writing by the Disclosing Party, provide the Disclosing Party with written certification of such destruction within [***] days; provided, that [***] copy may be maintained in the confidential files of the Receiving Party for the purpose of complying with the terms of this Agreement; further provided that the Receiving Party may retain the Disclosing Party's Confidential Information that is necessary or useful for the practice of any license from the Disclosing Party to the Receiving Party that survives expiration or termination, as applicable.

ARTICLE 17
MISCELLANEOUS

17.1 Governing Law; Dispute Resolution; Submission to Jurisdiction.

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof that would require the application of the law of any other jurisdiction.

(b) Any dispute arising under, relating to, or in connection with this Agreement which is not a Legal Dispute (except as otherwise set forth in Section 16.9) or subject to a Party's decision-making authority (including any dispute regarding the scope or applicability of this agreement to arbitrate) (a "Collaboration Dispute") will be resolved exclusively through binding arbitration as set forth in this Section 17.1(b) ("Arbitration"). The Parties agree and acknowledge that any good faith dispute in Arbitration will not be deemed to be a material breach of this Agreement. For clarity, a Legal Dispute shall not be subject to Arbitration.

(i) The Arbitration will be conducted in New York, New York and shall be administered by JAMS (formerly known as J.A.M.S., which was otherwise known as Judicial Arbitration and Mediation Services, Inc.) strictly in accordance with the below-described process.

(ii) The Parties will appoint a single arbitrator to be selected by mutual agreement or, if the Parties are unable to agree on an arbitrator within [***] Business Days after such matter is referred to Arbitration, the Parties will request that JAMS select the arbitrator, in each case satisfying the criteria set forth below to the maximum extent possible.

(iii) In all cases, the arbitrator should be a person with no less than [***] years of biotechnology industry experience and expertise having occupied at least [***] senior position within a biotechnology company [***], but under no circumstances shall such person be a current or former employee or consultant of either Party or its Affiliates. If the Collaboration Dispute relates primarily to scientific matters, such as interpretation of the terms Target [***], then the arbitrator should also have relevant scientific expertise. If the Collaboration Dispute relates primarily to Intellectual Property, then the arbitrator should also have at least [***] years of relevant Patent or other Intellectual Property expertise. In all cases, the arbitrator shall be fluent in the English language.

(iv) Within [***] days after such matter is referred to Arbitration, each Party will provide the arbitrator with its one proposed resolution and a written memorandum in support of its position regarding the Collaboration Dispute and its proposed resolution (each an "Opening Brief") which shall not exceed [***] pages in total. In connection with the submission of an Opening Brief, a Party may also submit documentary evidence in support thereof which had both (x) existed prior to commencement of such Arbitration and (y) been previously shared with the other Party. The arbitrator will provide each Party's Opening Brief and supporting documentation, if any, or proposed Co-Co Agreement, if applicable, to the other Party after he or she receives an Opening Brief from both Parties.

(v) Within [***] days after a Party receives the other Party's Opening Brief from the arbitrator, such receiving Party will have the right to submit to the arbitrator a response to the other Party's Opening Brief (each, a "Response Brief") which shall not exceed [***] pages in total. In connection with the submission of a Response Brief, a Party may also submit documentary evidence in support thereof which had both (x) existed prior to commencement of such Arbitration and (y) been previously shared with the other Party. The arbitrator will provide each Party's Response Brief and supporting documentation, if any, to the other Party after he or she receives a Response Brief from both Parties (or at the expiration of such [***] day period if any Party fails to submit a Response Brief).

(vi) Within [***] days of the receipt by the arbitrator of each Party's Response Brief (or expiration of such [***] day period if any Party fails to submit a Response Brief), the arbitrator will conduct a single [***] hour hearing during which each Party will have [***] hour to present its position. At the hearing, each Party will have the right to call up to [***] witnesses, [***] of whom may be an employee, consultant or other advisor to the other Party. Each Party will notify the other Party and the arbitrator of the identity of the witnesses it intends to call at least [***] days in advance of the hearing.

(vii) There shall be no discovery in the Arbitration [***]. The arbitrator will, however, have the right to perform independent research and analysis and to request any Party provide additional documentary evidence that was Controlled by such Party prior to the arbitrator making such request.

(viii) Within [***] days of such hearing, or within some other time to which the Parties and the arbitrator agree, the arbitrator will deliver his/her decision regarding the Collaboration Dispute in writing. [***]

(ix) Each of the Parties irrevocably and unconditionally submit to the exclusive jurisdiction of the United States District Court for the Southern District of New York solely and specifically for the purposes enforcing the decision in any Arbitration.

(c) Subject to Section 17.1(b), the Parties irrevocably and unconditionally submit to the exclusive jurisdiction of the United States District Court for the Southern District of New York (and, if such federal court rejects jurisdiction for any reason, then solely and exclusively in the state courts of the city of New York, New York) solely and specifically for the purposes of any action or proceeding arising out of or in connection with this Agreement. The Parties agree and consent to submit themselves to personal jurisdiction in any such action brought in those courts.

17.2 Waiver. Waiver by a Party of a breach hereunder by the other Party shall not be construed as a waiver of any subsequent breach of the same or any other provision. No delay or omission by a Party in exercising or availing itself of any right, power or privilege hereunder shall preclude the later exercise of any such right, power or privilege by such Party. No waiver shall be effective unless made in writing with specific reference to the relevant provision(s) of this Agreement and signed by a duly authorized representative of the Party granting the waiver.

17.3 Notices. All notices, instructions and other communications required or permitted hereunder or in connection herewith shall be in writing, shall be sent to the address of the relevant Party set forth on Schedule 17.3 attached hereto and shall be (a) delivered personally, (b) sent via a reputable nationwide overnight courier service, or (c) sent by facsimile transmission, with a confirmation copy to be sent by registered or certified mail, return receipt requested, postage prepaid, except in the event this Agreement specifies the notice may be delivered by email. Any such notice, instruction or communication shall be deemed to have been delivered upon receipt if delivered by hand, [***] Business Days after it is sent via a reputable nationwide overnight courier service or when transmitted with electronic confirmation of receipt, if transmitted by facsimile (or email, if email is permitted) (if such transmission is made during regular business hours of the recipient on a Business Day; or otherwise, on the next Business Day following such transmission). Either Party may change its address by giving notice to the other Party in the manner provided above.

17.4 Entire Agreement. This Agreement contains the complete understanding of the Parties with respect to the subject matter hereof and thereof and supersedes all prior understandings and writings relating to the subject matter hereof and thereof. For clarity, this Agreement supersedes the CDA.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 406 PROMULGATED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

17.5 Amendments. No provision in this Agreement shall be supplemented, deleted or amended except in a writing executed by an authorized representative of each of Intellia and Regeneron.

17.6 Interpretation. The captions to the several Articles and Sections of this Agreement are included only for convenience of reference and shall not in any way affect the construction of, or be taken into consideration in interpreting, this Agreement. In this Agreement: (a) the word "including" shall be deemed to be followed by the phrase "without limitation" or like expression; (b) references to the singular shall include the plural and vice versa; (c) references to masculine, feminine and neuter pronouns and expressions shall be interchangeable; (d) the words "herein" or "hereunder" relate to this Agreement; (e) the words "shall" and "will" have the same meaning; (f) references to a particular statute or regulation include all rules and regulations thereunder, in each case as amended or otherwise modified from time to time; (g) references to a particular person include such person's successors and assigns to the extent not prohibited by this Agreement; (h) unless otherwise specified, "$" is in reference to United States dollars; (i) the word "or" has the inclusive meaning represented by the phrase "and/or"; and (j) with respect to the invention of Intellectual Property, the term "invent" or "invented" shall mean conceived, discovered, made or reduced to practice as would be necessary to establish inventorship under United States patent law (regardless of where the applicable activities occurred). Each accounting term used herein that is not specifically defined herein shall have the meaning given to it under GAAP, but only to the extent consistent with its usage and the other definitions in this Agreement.

17.7 Construction. The Parties acknowledge and agree that: (a) each Party and its counsel reviewed and negotiated the terms and provisions of this Agreement and have contributed to its revision; (b) the rule of construction to the effect that any ambiguities are resolved against the drafting Party will not be employed in the interpretation of this Agreement; and (c) the terms and provisions of this Agreement will be construed fairly as to each Party and not in a favor of or against either Party, regardless of which Party was generally responsible for the preparation of this Agreement. The headings of clauses contained in this Agreement preceding the text of the sections, subsections and paragraphs hereof are inserted solely for convenience and ease of reference only and shall not constitute any part of this Agreement, or have any effect on its interpretation or construction. This Agreement has been prepared in the English language and the English language shall control its interpretation. In addition, all notices required or permitted to be given hereunder, and all written, electronic, oral or other communications between the parties regarding this Agreement shall be in the English language

17.8 Severability. Should one or more provisions of this Agreement be or become invalid, then the Parties hereto will attempt to agree upon valid provisions in substitution for the invalid provisions, which in their economic effect come so close to the invalid provisions that it can be reasonably assumed that the Parties would have accepted this Agreement with those new provisions. If the Parties are unable to agree on such valid provisions, the invalidity of such one or more provisions of this Agreement will not affect the validity of the Agreement as a whole,

unless the invalid provisions are of such essential importance for this Agreement that it may be reasonably presumed that the Parties would not have entered into this Agreement without the invalid provisions.

17.9 Assignment. Except as otherwise expressly provided herein, neither this Agreement nor any of the rights or obligations hereunder may be assigned by either Intellia or Regeneron without (a) the prior written consent of Regeneron in the case of any assignment by Intellia or (b) the prior written consent of Intellia in the case of an assignment by Regeneron, except in each case (i) to an Affiliate of the assigning Party (provided, however, that a Party assigning to an Affiliate shall remain fully and unconditionally liable and responsible to the non-assigning Party hereto for the performance and observance of all such duties and obligations by such Affiliate), or (ii) to any Third Party who acquires all or substantially all of the business of the assigning Party to which this Agreement relates, whether by merger, Change of Control, sale of assets or otherwise, so long as such Affiliate or Third Party agrees in writing to be bound by the terms of this Agreement. Any attempted assignment in violation hereof shall be void.

17.10 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and permitted assigns.

17.11 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original but which together shall constitute one and the same instrument. In addition, this Agreement may be executed by facsimile or "PDF" and such facsimile or "PDF" signature shall be deemed to be an original.

17.12 Third Party Beneficiaries. None of the provisions of this Agreement shall be for the benefit of or enforceable by any Third Party, including any creditor of any Party hereto. No Third Party shall obtain any right under any provision of this Agreement or shall by reason of any such provision make any claim in respect of any debt, liability or obligation (or otherwise) against any Party hereto.

17.13 Relationship of the Parties. Each Party shall bear its own costs incurred in the performance of its obligations hereunder without charge or expense to the other Party except as expressly provided in this Agreement. Neither Intellia nor Regeneron shall have any responsibility for the hiring, termination or compensation of the other Party's employees or for any employee compensation or benefits of the other Party's employees. No employee or representative of a Party shall have any authority to bind or obligate the other Party to this Agreement for any sum or in any manner whatsoever, or to create or impose any contractual or other liability on the other Party without said Party's approval. For all purposes, and notwithstanding any other provision of this Agreement to the contrary, Regeneron's legal relationship under this Agreement to Intellia, and Intellia's legal relationship under this Agreement to Regeneron, shall be that of an independent contractor. Nothing in this Agreement shall be construed to establish a relationship of partners or joint ventures between the Parties or any of their respective Affiliates.

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17.14 Limitation of Damages. IN NO EVENT SHALL REGENERON OR INTELLIA BE LIABLE FOR SPECIAL, PUNITIVE, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, LOSS OF PROFITS) SUFFERED BY THE OTHER PARTY, REGARDLESS OF THE THEORY OF LIABILITY (INCLUDING CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE) AND REGARDLESS OF ANY PRIOR NOTICE OF SUCH DAMAGES. HOWEVER, NOTHING IN THIS SECTION 17.14 IS INTENDED TO LIMIT OR RESTRICT (A) LIABILITY FOR BREACH OF SECTION 12.7 OR SECTION 13.1 OR (B) THE INDEMNIFICATION RIGHTS AND OBLIGATIONS OF EITHER PARTY HEREUNDER AS SET FORTH IN SECTION 14.1 WITH RESPECT TO THIRD PARTY CLAIMS.

17.15 Injunctive or Other Equity Relief. Nothing contained in this Agreement shall deny any Party the right to seek injunctive or other equitable relief from a court of competent jurisdiction in the context of a *bona fide* emergency or prospective irreparable harm, and such an action may be filed and maintained notwithstanding any other ongoing proceeding.

17.16 Non-Exclusive Remedies. The rights and remedies provided herein are cumulative and do not exclude any other right or remedy provided by Applicable Law or otherwise available except as and to the extent expressly set forth herein.

[Remainder of page intentionally left blank; signature page follows]

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IN WITNESS WHEREOF, Regeneron and Intellia have caused this Agreement to be executed by their duly authorized representatives as of the day and year first above written.

REGENERON PHARMACEUTICALS, INC.

By /s/ Michael Aberman
Name: Michael Aberman
Title: SVP, Strategy and I.R.

INTELLIA THERAPEUTICS, INC.

By /s/ Nessan Bermingham
Name: Nessan Bermingham
Title: CEO and President

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[***]

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Schedule 1.47
Intellia Background Patent Rights as of the Effective Date

[***]

Title	Patent Family (including patents and applications claiming priority to listed documents)	Applicable In-License	Ownership and Foreign Filing Information
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
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Schedule 1.50
Intellia Existing Third Party Agreements

[***]

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Schedule 1.58
Intellia Reserved Liver Targets

Intellia Reserved Liver Targets

Entrez ID	Target Symbol (HUGO)	Indication	Alias
NA	NA	HBV	The HBV Genome
ID: 5265	SERPINA1	Alpha 1 antitrypsin deficiency	A1A, A1AT, AAT, PI, PI1, PRO2275, alpha1AT
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]

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[***]

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Schedule 1.119
Regeneron Target Evaluation Plan

[***]

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Schedule 5.1(e)(iii)
[***] Target and Development Plan

Entrez ID	Target Symbol (HUGO)	Indication	Alias
ID: 7276	TTR	Transthyretin-related amyloidosis	CTS, CTS1, HEL111, HsT2651, PALB, TBPA

[***]

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[***]

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Schedule 5.3

Key Terms for Co- Co Agreement

Capitalized terms set forth herein but not otherwise defined herein shall have the meaning set forth in the Agreement.

I. GENERAL TERMS

General Terms	The Parties intend to enter into a Co-Development and Co-Promotion Agreement within [***] of the effective date of the Agreement. Upon execution of the Co-Development and Co-Promotion Agreement, the Co-Development and Co-Promotion Agreement will apply to the TTR Target. Future Intellia Liver Targets and Regeneron Targets will be added to the Co-Development and Co-Promotion Agreement upon exercise of the Regeneron Option or Intellia Option as applicable for such Targets (a "Profit Share Target") and all CPs Directed to such Profit Share Targets ("Profit Share Products"). [***]
Option Exercise Payment	Within [***] days after the date on which a Profit Share Target is added to the Co-Development and Co-Promotion Agreement (but for clarity, not with respect to TTR), the Party exercising the Intellia Option or Regeneron Option, as applicable, shall pay to the other Party an amount equal to [***] as compensation [***] under the Co-Development and Co-Promotion Agreement.
Territory	[***]

II. GOVERNANCE

Joint Development and Commercialization Committee	The Parties shall form a Joint Development and Commercialization Committee ("JDCC") to oversee all Profit Share Products under the Co-Development and Co-Promotion Agreement. The JDCC will have responsibility for overseeing the development, manufacture, regulatory matters, and commercialization (including pricing and reimbursement) of the Profit Share Product. The [***] shall prepare a [***] development plan and associated budget ("Development Plan") for JDCC approval. [***] the [***] shall prepare a [***] commercialization plan[***] and associated budget ("Commercial Plan") for JDCC approval.

Decision-Making	Decisions of the JDCC with respect to Profit Share Products shall be resolved in accordance with procedures consistent with those described in Sections 2.2(b) of the Agreement[***].

III. DEVELOPMENT, REGULATORY, AND MANUFACTURING

Development	The [***] shall have the [***] right and shall use Commercially Reasonable Efforts to conduct development activities for its Profit Share Product in accordance with the Development Plan.
Regulatory	[***] shall [***] prepare and make regulatory submissions and engage in regulatory communications to Regulatory Authorities with respect to the Profit Share Product[***].
Manufacturing	Unless otherwise agreed to between the Parties [***] shall have the [***] right and responsibility to manufacture (or have manufactured) the clinical and commercial supply of the Profit Share Product. [***]

IV. COMMERCIALIZATION

Commercialization	Subject to the co-promotion rights described below, [***] shall [***] commercialize the Profit Share Product [***] in accordance with the Commercial Plan for such Profit Share Product.

V. FINANCIAL TERMS

Cost/Profit/Loss Sharing	From and after the date each Profit Share Product is included under the Co-Development and Co-Promotion Agreement, the Parties shall each share in [***] of all [***] costs as specified in the Co-Development and Co-Promotion Agreement and [***] all profits (or losses as the case may be), in each case associated with the Profit Share Product in the Territory. [***] [***]

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VI. TERM AND TERMINATION

Term

The term of the Co-Development and Co-Promotion Agreement (the "Profit Share Term") shall become effective on its effective date and shall remain in effect for the time in which [***] Party is developing or commercializing Profit Share Product, unless earlier terminated as set forth below.

Termination

- **Convenience:** Either Party can terminate for convenience with upon [***] months prior notice [***]
- **Material Breach:** Either Party has a right to terminate the Agreement for a material breach of the Profit-Share Agreement by the other Party and the standard for material breach and termination shall be consistent with the standard in the Agreement**.**

  [***]
- **Economics of Post-Termination Licenses**. The Parties shall agree in the Co-Development and Co-Promotion Agreement to the economics of post-termination licenses [***].

VII. ADDITIONAL TERMS

Sublicensing

[***]

Exclusivity

During the term of the Co-Development and Co-Promotion Agreement, neither Party nor any of their respective Affiliates shall [***].

[***]

US Co-Promotion Right

[***] will be granted an option to co-promote the Profit Share Products in the US. The [***] will provide notice of its exercise its option no later than [***] months prior to the date of [***]

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Schedule 7.3(b)
Non-Exclusively Licensed Patent Rights

[***]

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[***]

[***]

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Schedule 9.4
Certain Third Party Patent Rights

[***]

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Schedule 12.2
Disclosures

[***]

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[***]

Title	Patent Family (including patents and applications claiming priority to listed documents)
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
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Schedule 17.3
Notice Information

To Intellia:	Intellia Therapeutics, Inc. 130 Brookline St., Suite 201 Cambridge, MA 02139 Attention: President and CEO
To Regeneron:	Regeneron Pharmaceuticals, Inc. 777 Old Saw Mill Road Tarrytown, NY 10591 Attention: General Counsel

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use in this Amendment No. 4 to Registration Statement No. 333-210689 of our report dated March 16, 2016 (April 25, 2016 as to the effects of the reverse stock split discussed in Note 2) relating to the financial statements of Intellia Therapeutics, Inc. (successor to Intellia Therapeutics, LLC) and subsidiaries appearing in the Prospectus, which is part of this Registration Statement.

We also consent to the reference to us under the heading "Experts" in such Prospectus.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
May 5, 2016