

PROSPECTUS SUPPLEMENT (Subject to Completion)

Dated October 21, 2021

\$125,000,000



Shares of Common Stock

We are offering \$125.0 million of shares of our common stock.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "ISEE". On October 20, 2021, the last reported sale price of our common stock on The Nasdaq Global Select Market was \$16.79 per share.

Our business and an investment in our common stock involve significant risks. These risks are described under the caption "Risk Factors" beginning on page S-9 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts	\$	\$
Proceeds, before expenses, to IVERIC bio, Inc.	\$	\$

The underwriters may also purchase up to an additional \$18.75 million of shares of our common stock from us at the public offering price, less the underwriting discount, within 30 days from the date of the prospectus.

The underwriters expect to deliver the shares against payment in New York, New York on October , 2021.

Book-Running Managers

Morgan Stanley

Cowen

Stifel

Credit Suisse

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission and is effective. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference in the accompanying prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Neither we nor the underwriters have authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement, in the accompanying prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. Neither we nor the underwriters take any responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

This prospectus supplement, the accompanying prospectus and any such free writing prospectus do not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus supplement, the accompanying prospectus and any such free writing prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and in any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of the date of those respective documents. It is important for you to read and consider all information contained in this prospectus supplement and in the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled “Where You Can Find More Information” and “Incorporation by Reference” in this prospectus supplement and in the accompanying prospectus.

Other than in the United States, no action has been taken by us that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement and accompanying prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement and accompanying prospectus.

Unless otherwise indicated or the context otherwise requires, references in this prospectus supplement and the accompanying prospectus to “IVERIC,” “we,” “our,” “us,” and “the Company” refer, collectively, to IVERIC bio, Inc., a Delaware corporation, and its consolidated subsidiaries, or any one or more of them as the context may require. When we refer to “you” in this prospectus supplement, we mean all purchasers of the securities being offered by this prospectus supplement and the accompanying prospectus, whether they are the holders or only indirect owners of those securities.

The trademarks, trade names and service marks appearing in this prospectus supplement and accompanying prospectus are the property of their respective owners. We have omitted the ® and ™ designations, as applicable, for the trademarks named in this prospectus supplement and accompanying prospectus.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the information incorporated by reference in this prospectus supplement and the accompanying prospectus include “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements, other than statements of historical facts, contained in this prospectus supplement and the accompanying prospectus, and the information incorporated by reference herein and therein, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “goals,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus supplement include, among other things, statements about:

- the potential benefits of our business plan and strategy, including our goal to deliver treatment options for all stages of age-related macular degeneration (AMD);
- our expectations regarding the impact of results from GATHER1, our completed Phase 3 clinical trial evaluating Zimura for the treatment of Geographic Atrophy (GA) secondary to AMD, on our business and regulatory strategy, including our plans to pursue development of Zimura in intermediate AMD;
- the timing, costs, conduct and outcome of GATHER2, our ongoing Phase 3 clinical trial evaluating Zimura for the treatment of GA secondary to AMD, including expectations regarding receipt of top-line data from the trial and regarding patient retention, and expectations regarding the potential for Zimura to receive regulatory approval for the treatment of GA secondary to AMD based on the clinical trial results we have received to date and the future results from the GATHER2 clinical trial and any other trials we or a potential collaborator may conduct;
- our plans and expectations for initiating a clinical trial evaluating Zimura for the treatment of intermediate AMD, and for evaluating, obtaining rights to and developing sustained release delivery technologies for Zimura;
- our plans and strategy for the potential commercialization of Zimura, including hiring of medical affairs and commercialization personnel, building a commercialization infrastructure, including sales, marketing and distribution capabilities, and our expectations regarding the market dynamics for treatments for GA and other commercial matters;
- our ability to establish and maintain arrangements and capabilities for the manufacture of Zimura and our other product candidates, including scale up and validation of the manufacturing process for Zimura drug substance and securing the supply of Zimura drug product and the polyethylene glycol (PEG) starting material for our expected needs;
- the timing, costs, conduct and outcome of STAR, our ongoing Phase 2b screening trial evaluating Zimura for the treatment of autosomal recessive Stargardt disease, including expectations regarding the recruitment of additional patients for this trial;
- the actual and expected effects of the COVID-19 pandemic and related response measures on our business and operations, including the timing, costs, conduct and outcome of our research and development programs, our supply chain, the work of our third-party vendors and collaborators, the work and well-being of our employees, and our financial position;
- our estimates regarding expenses, future revenues, capital requirements and needs for, and ability to obtain, additional financing;
- our plans and ability to consummate business development transactions, including potential collaboration opportunities for further development and potential commercialization of Zimura and potential collaboration or out-licensing opportunities for further development of IC-100 and

- IC-200, and in-licenses or other opportunities to acquire rights to additional product candidates or technologies to treat retinal diseases, including sustained release delivery technologies for Zimura;
- the timing, costs, conduct and outcome of our ongoing and planned clinical trials, including statements regarding the timing of the initiation and completion of, and the receipt of results from, such clinical trials, the costs to conduct such clinical trials, and the impact of the results of such clinical trials on our business strategy;
 - the timing, costs, conduct and outcome of our ongoing and planned research and preclinical development activities, including statements regarding the timing of the initiation and completion of, and the receipt of results from, such activities, the costs to conduct such activities, and the impact of the results of such activities on our business strategy;
 - the timing of and our ability to submit investigational new drug applications for, and to obtain marketing approval of our product candidates, and the ability of our product candidates to meet existing or future regulatory standards;
 - the potential advantages of our product candidates and other technologies that we are pursuing, including our hypotheses regarding complement factor C5 inhibition and HtrA1 inhibition as potentially relevant mechanisms of action to treat GA and other stages of AMD, and of gene therapy, including the use of minigenes;
 - our estimates regarding the number of patients affected by the diseases our product candidates and development programs are intended to treat;
 - our estimates regarding the potential market opportunity for our product candidates;
 - the rate and degree of potential market acceptance and clinical utility of our product candidates, if approved;
 - the potential receipt of revenues from future sales of our product candidates, if approved;
 - our personnel and human capital resources;
 - our intellectual property position;
 - the impact of existing and new governmental laws and regulations;
 - our competitive position; and
 - our expectations related to our use of proceeds from this offering and our existing cash resources.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus supplement and the accompanying prospectus, particularly under the heading “Risk Factors,” and in the risk factors included in our periodic reports filed with the Securities and Exchange Commission, or the SEC, and in the other documents filed with the SEC and incorporated by reference in this prospectus supplement and the accompanying prospectus, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, licenses, dispositions, joint ventures or investments we may make.

You should read this prospectus supplement and the accompanying prospectus, and the documents incorporated by reference herein and therein, completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements except as required by applicable law.

This prospectus supplement and the accompanying prospectus include 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.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus and in the documents incorporated by reference herein and therein. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, especially the risks of investing in our common stock discussed under “Risk Factors” beginning on page S-9 of this prospectus supplement and in our periodic and other reports filed with the SEC, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision.

IVERIC BIO, INC.

Our Business

We are a science-driven biopharmaceutical company focused on the discovery and development of novel treatments for retinal diseases with significant unmet medical needs. We are committed to having a positive impact on patients’ lives by delivering high-quality, safe and effective treatments designed to address debilitating retina diseases including all stages of age-related macular degeneration, or AMD.

Our lead asset is our clinical stage product candidate Zimura® (avacincaptad pegol), a complement C5 inhibitor. We are currently targeting the following diseases with Zimura:

- Geographic Atrophy, or GA, which is the advanced stage of AMD, and is characterized by marked thinning or atrophy of retinal tissue, leading to irreversible loss of vision;
- intermediate AMD, which is an earlier stage of AMD that precedes GA; and
- autosomal recessive Stargardt disease, or STGD1, which is an orphan inherited condition characterized by progressive damage to the central portion of the retina, or the macula, and other retinal tissue, leading to loss of vision.

In July 2021, we completed patient enrollment for GATHER2, our Phase 3 clinical trial evaluating the safety and efficacy of Zimura for the treatment of GA secondary to AMD. We have also received a written agreement from the U.S. Food and Drug Administration, or the FDA, under a Special Protocol Assessment for the overall design of GATHER2. We expect topline data from the GATHER2 trial to become available during the second half of 2022, approximately one year after the enrollment of the last patient plus the time needed for database lock and analysis. We also plan to initiate a Phase 3 clinical trial evaluating Zimura for patients with intermediate AMD during 2022. We expect data from this trial, if positive, together with other supportive data, may be sufficient to file a supplemental new drug application, or NDA, with the FDA and a supplemental marketing authorization application, or MAA, with the European Medicines Agency, or the EMA.

In addition to Zimura, we are developing our preclinical product candidate IC-500, a High temperature requirement A serine peptidase 1 protein, or HtraA1, inhibitor, for GA secondary to AMD and potentially other age-related retinal diseases. Based on current timelines, we expect to submit an investigational new drug application, or IND, to the FDA for IC-500 during the second half of 2022.

Our portfolio also includes two preclinical stage gene therapy product candidates (IC-100 and IC-200) and several ongoing gene therapy research programs, each of which uses adeno-associated virus, or AAV, for gene delivery. These AAV mediated gene therapy programs are targeting the following orphan inherited retinal diseases, or IRDs:

- rhodopsin-mediated autosomal dominant retinitis pigmentosa, or RHO-adRP, which is characterized by progressive and severe bilateral loss of vision leading to blindness;
- IRDs associated with mutations in the *BEST1* gene, including Best vitelliform macular dystrophy, or Best disease;
- Leber Congenital Amaurosis type 10, which is characterized by severe bilateral loss of vision at or soon after birth;

- STGD1; and
- IRDs associated with mutations in the *USH2A* gene, which include Usher syndrome type 2A, and *USH2A*-associated non-syndromic autosomal recessive retinitis pigmentosa.

As we focus our efforts on and prioritize the development of Zimura, we have been considering our development options for IC-100 and IC-200, which we have been developing for RHO-adRP and BEST1-related IRDs, respectively. We currently plan to seek a collaborator or licensee for the future development and potential commercialization of these product candidates. We do not now expect to initiate a Phase 1/2 clinical trial for IC-200 in 2021. We expect that this re-prioritization of our development programs will allow us to devote an additional \$10 million to \$15 million to our Zimura development and pre-commercialization efforts between now and the end of 2023.

Company Information

Our principal executive offices are located at Five Penn Plaza, Suite 2372, New York, NY 10001, and our telephone number is (212) 845-8200. Our website address is www.ivericbio.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus supplement. We have included our website address in this prospectus supplement solely as an inactive textual reference.

THE OFFERING

Common stock offered by us	\$125.0 million of shares of our common stock.
Common stock to be outstanding after this offering	shares.
Option to purchase additional shares	We have granted the underwriters an option for a period of 30 days to purchase up to an additional \$18.75 million of shares of our common stock. The number of shares subject to the underwriters' option equals 15% of the total number of shares of common stock we are offering.
Use of proceeds	<p>We estimate that the net proceeds to us from this offering, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$117.1 million (or approximately \$134.7 million if the underwriters exercise in full their option to purchase additional shares).</p> <p>We plan to use the net proceeds from this offering to fund (a) preparation for potential commercial launch of Zimura, including continued investment in manufacturing capabilities; (b) initiation of a Phase 3 clinical trial evaluating Zimura for patients with intermediate AMD; (c) additional investment in sustained release delivery technologies for Zimura and other lifecycle improvement programs; and (d) working capital and other general corporate purposes. See the "Use of Proceeds" section of this prospectus supplement for a more complete description of the intended use of proceeds from this offering.</p>
Risk Factors	You should read the "Risk Factors" section of this prospectus supplement beginning on page S-9 and in our periodic and other reports filed with the SEC and incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors to consider carefully before deciding to purchase shares of our common stock.
Nasdaq Global Select Market symbol	Our common stock is listed on The Nasdaq Global Select Market under the symbol "ISEE".

The number of shares of our common stock that will be outstanding immediately after this offering as shown above is based on 104,237,878 shares of our common stock issued and outstanding as of September 30, 2021. The number of shares of our common stock that will be outstanding immediately after this offering excludes:

- 9,088,870 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2021, at a weighted average exercise price of \$9.85 per share;
- 1,903,120 shares of our common stock issuable upon the vesting of restricted stock units outstanding as of September 30, 2021;
- 3,030,863 additional shares of our common stock available for future issuance under our 2013 stock incentive plan as of September 30, 2021;
- 1,314,400 additional shares of our common stock available for future issuance under our 2019 inducement stock incentive plan as of September 30, 2021;
- 753,410 additional shares of our common stock available for future issuance under our 2016 employee stock purchase plan as of September 30, 2021; and

- 3,164,280 shares of our common stock reserved for issuance upon the exercise of pre-funded warrants outstanding as of September 30, 2021.

Unless otherwise indicated or the context otherwise requires, all information in this prospectus supplement:

- assumes no exercise of the outstanding options and the outstanding pre-funded warrants described above;
- assumes no exercise by the underwriters of their option to purchase up to an additional \$18.75 million of shares of common stock from us;
- does not give effect to potential future milestone payments payable in the form of shares of our common stock pursuant to (a) the agreement and plan of merger under which we acquired Inception 4, Inc., or the Inception 4 acquisition, in October 2018 or (b) the exclusive license agreement we entered into in July 2019 with the University of Massachusetts for rights to our miniCEP290 gene therapy program; and
- does not reflect the \$100 million of shares of our common stock that remain available for sale under our “at-the-market” sales agreement, or the ATM Sales Agreement, with Cowen and Company, LLC, or Cowen, pursuant to which we may sell from time to time our common stock through an “at-the-market” equity offering program.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below together with all of the other information contained in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference herein and therein, including the risks described in our periodic and other reports filed with the SEC before deciding to invest in our common stock. If any of these risks actually occur, our business, prospects, operating results and financial condition could suffer materially. In such event, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to This Offering

We have broad discretion in the use of our available cash and other sources of funding, including the net proceeds we receive from this offering, and may not use them effectively.

Our management has broad discretion in the use of our available cash and other sources of funding, including the net proceeds we receive in this offering, including for any of the purposes described in the section of this prospectus supplement titled “Use of Proceeds,” and could spend those resources in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest our available cash, including the net proceeds from this offering, in a manner that does not produce income or that loses value.

If a significant portion of our total outstanding shares are sold into the market, the market price of our common stock could drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. For example, we issued 8,649,453 shares of our common stock to funds affiliated with Vivo Capital LLC and Samsara BioCapital, LP in a private placement in June 2020. In accordance with our obligations under a stock purchase agreement executed in connection with the private placement, we have filed a registration statement on Form S-3 with the SEC for purposes of registering for resale these shares, which has been declared effective by the SEC, pursuant to which shares can be freely sold and traded. If the holders of these shares sell, or the market perceives that these holders will sell, the shares currently held by them, the price of our common stock may decline. These sales also might make it difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. We cannot predict the size of the future issuances of our common stock or the effect, if any, that this offering or any future issuances may have on the market price of our common stock.

Moreover, we have filed, and expect to continue to file, registration statements on Form S-8 registering all shares of common stock that we may issue under our equity compensation plans. Once registered on Form S-8, shares underlying these equity awards can be freely sold in the public market upon issuance, subject to volume, notice and manner of sale limitations applicable to affiliates.

We currently have on file with the SEC a universal shelf registration statement which allows us to offer and sell up to \$300,000,000 of our securities from time to time pursuant to one or more offerings at prices to be determined at the time of sale, including up to \$100,000,000 of common stock we may offer and sell from time to time under the ATM Sales Agreement with Cowen, and an automatically effective universal shelf registration statement which allows us to offer and sell an indeterminate amount of our securities from time to time pursuant to one or more offerings at prices to be determined at the time of sale, including the securities being offered in this offering.

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

The price of our common stock in this offering is substantially higher than the net tangible book value per share of our outstanding 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 our outstanding options, warrants or pre-funded warrants are exercised, and to the extent we issue additional shares of our common stock or securities convertible or exchangeable into shares of our common stock, you will incur further dilution. Based on a public offering price of \$ _____ per share of common stock, you will experience immediate dilution of \$ _____ per share of common stock, representing the difference between our as adjusted net tangible book value per share, after giving effect to this offering, and the public offering price.

Risks Related to Our Business Plan, Financial Position and Need for Additional Capital

We are a development-stage company without any commercial products. The value of our company, therefore, is highly dependent on the success of Zimura and our other research and development efforts and the amount of our available cash. Our research and development programs, which are focused on novel therapies and technologies, carry significant scientific and other risks. If any of these programs are not successful, the value of your investment may decline.

We are a development-stage company without any approved products. Our growth prospects and the future value of our company are highly dependent on the progress of our research and development programs, including our ongoing and any future clinical trials for Zimura, our preclinical development program for IC-500, and our gene therapy research programs. In particular, we are highly dependent on the success of Zimura, and any delays or issues with its further development, its potential marketing approval, or its potential commercialization will likely cause the value of your investment to decline significantly. Drug development is a highly uncertain undertaking and carries significant scientific and other risks.

We may encounter unforeseen difficulties, complications, delays, expenses and other known and unknown factors. We may never be successful in developing or commercializing any of our product candidates or other programs. There is a high rate of failure in pharmaceutical research and development. Even if we have promising preclinical or clinical candidates, their development could fail at any time. Our failure could be due to unexpected scientific, safety or efficacy issues with our product candidates and other programs, invalid hypotheses regarding the molecular targets and mechanisms of action we choose to pursue or unexpected delays in our research and development programs resulting from applying the wrong criteria or experimental systems and procedures to our programs or lack of experience or other factors, including disruptions resulting from the COVID-19 pandemic, with the possible result that none of our product candidates or other programs result in the development of marketable products. We have not yet demonstrated our ability to successfully complete the development of a pharmaceutical product, including completion of large-scale, pivotal clinical trials with safety and efficacy data sufficient to obtain marketing approval or activities necessary to apply for and obtain marketing approval, including the qualification of a commercial manufacturer through a pre-approval inspection with regulatory authorities. If successful in developing and obtaining marketing approval of one of our product candidates, we would need to transition from a company having a product development focus to a company capable of commercializing pharmaceutical products. At this time, we are beginning to hire commercialization personnel and build a commercial infrastructure for the potential commercialization of Zimura, if approved. We may not be successful in such a transition, as our company has never conducted the sales, marketing, manufacturing and distribution activities necessary for successful product commercialization.

Because the value of our company is largely based on the prospects for our research and development programs and their potential to result in therapies capable of achieving marketing approval and generating future revenues, any failure, delay or setback for these programs will likely have a negative impact on the value of your investment. In addition, even if we are successful in advancing the research and development of IC-500, which is currently in preclinical development, the value of our common stock may not rise in a meaningful way. As we continue to invest in our research and development programs to generate data to support further development or applications to obtain marketing approval for commercialization, the amount of our available cash will continue to decline until we raise additional finances.

We have a history of significant operating losses. We expect to continue to incur losses until such time, if ever, that we successfully commercialize our product candidates and may never achieve or maintain profitability.

Since inception, we have experienced significant cash outflows in funding our operations. To date, we have not generated any revenues from commercial product sales and have financed our operations primarily

through private placements of our common stock and preferred stock, venture debt borrowings, funds received under our prior Fovista royalty purchase and sale agreement with Novo Holdings A/S, our initial public offering, which we closed in September 2013, funds we received under our prior Fovista licensing and commercialization agreement with Novartis Pharma AG, funds we received in connection with our acquisition of Inception 4 in October 2018, and our follow-on public offerings, which we closed in February 2014, December 2019, June 2020 and July 2021. As of June 30, 2021, we had an accumulated deficit of \$622.0 million. Our net loss was \$56.9 million for the six months ended June 30, 2021 and we expect to continue to incur significant operating losses for the foreseeable future.

Zimura is in clinical development, IC-500 is in preclinical development, and we are advancing multiple gene therapy research programs. We expect our research and development expenses to increase as we pursue these programs as currently planned. We could incur additional research and development expenses if we modify or further expand the scope of our clinical trials, our preclinical development programs or our gene therapy research programs, or if we in-license or acquire, and undertake development of, additional product candidates and technologies, including sustained release delivery technologies for Zimura and any promising product candidates that emerge from our gene therapy research programs. We could also incur additional research and development expenses if, for example, we are required by the FDA, the EMA or regulatory authorities in other jurisdictions, or if we otherwise decide, to perform clinical trials and/or nonclinical or other studies in addition to those we currently expect to conduct. If we experience delays or disruptions to our research and development programs, including delays in patient enrollment or issues with patient retention or patients missing scheduled visits and treatments, if we experience issues with our preclinical development programs, such as unfavorable toxicology or other preclinical data, if we experience issues with the manufacture and supply of product candidates for our development programs, including issues with process development or manufacturing scale-up activities, whether such delays or disruptions are due to the COVID-19 pandemic or other reasons, we could incur additional and unexpected expenses as a result of such delays or disruptions and our business and financial results may be materially impacted. Furthermore, if we successfully develop and expect to obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, distribution and manufacturing. We expect to start incurring these expenses as we prepare for the potential commercialization of Zimura. We are party to agreements with Archemix Corp., or Archemix, with respect to Zimura, the former equityholders of Inception 4 with respect to IC-500, the University of Florida Research Foundation, Incorporated, or UFRF, and the University of Pennsylvania, or Penn, with respect to IC-100 and IC-200, and the University of Massachusetts, or UMass, with respect to any potential product candidates from our miniCEP290 program, in each case, that impose significant milestone payment obligations on us if we or a potential collaborator achieves specified clinical, regulatory and commercial milestones with respect to these product candidates, as well as certain royalties on net sales with respect to IC-100, IC-200 and any product candidates we choose to develop from our miniCEP290 program. It is likely that any future in-licensing or acquisition agreements that we enter into with respect to additional product candidates or technologies would include similar obligations.

We expect that we will continue to incur significant expenses as we:

- continue the development of Zimura in GA and STGD1 and initiate development of Zimura in intermediate AMD and potentially other indications;
- expand our outsourced manufacturing capabilities for Zimura and IC-500 and begin to establish commercial operations and sales, marketing and distribution capabilities for Zimura;
- prepare a NDA and a MAA for Zimura and seek marketing approval for any product candidates that successfully complete clinical trials;
- in-license or acquire the rights to, and pursue the development of, other product candidates or technologies for retinal diseases, such as sustained release delivery technologies for Zimura;
- continue the development of IC-500 and pursue our gene therapy research programs;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, commercial, medical affairs, regulatory, pharmacovigilance, manufacturing, quality control, quality assurance and scientific personnel; and
- expand our general and administrative functions to support our future growth.

Our ability to become and remain profitable depends on our ability to generate revenues in excess of our expenses. Our ability to generate revenues from product sales is dependent on our obtaining marketing approval for and commercializing our product candidates or any product candidates we may in-license or acquire. We may be unsuccessful in our efforts to develop and commercialize product candidates or in our efforts to in-license or acquire additional product candidates. Even if we succeed in developing and commercializing one or more of our product candidates, we may never achieve sufficient sales revenue to achieve or maintain profitability. See “— Risks Related to Product Development and Commercialization” for a further discussion of the risks we face in successfully developing and commercializing our product candidates and achieving profitability.

We expect we will require substantial, additional funding in order to complete the activities necessary to develop and commercialize Zimura or any of our other product candidates. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate one or more of our product development programs or commercialization efforts. We may require additional funding beyond what we currently expect or sooner than we currently expect.

As of September 30, 2021, we had cash, cash equivalents and available for sale securities of approximately \$242 million. This cash balance is preliminary financial data based on preliminary unaudited information currently available to us as of the date of this prospectus supplement, has been prepared by management, and is inherently uncertain and subject to revision in connection with our closing procedures and finalization of our financial statements for the three and nine-month periods ended September 30, 2021. Based upon our current operating plan, we estimate that the net proceeds from this offering, together with our existing cash, cash equivalents and available for sale securities, will enable us to fund our operating expenses and capital expenditure requirements as currently planned, excluding any potential approval or sales milestones payable to Archemix Corp. and any potential expenses for actual commercial launch of Zimura, such as associated sales force expenses, through at least mid-2024. This estimate is based on our current business plan, which includes the continuation of our ongoing clinical development programs for Zimura in GA and STGD1 and the initiation of an intermediate AMD clinical trial, preparation and potential filing of a new drug application and a marketing authorization application for Zimura in GA secondary to AMD, continuing preparations for potential commercial launch of Zimura in GA secondary to AMD, investing in sustained release delivery technologies for Zimura, and the advancement of our IC-500 development program. This estimate does not reflect any additional expenditures related to potentially studying Zimura in other indications outside GA, STGDI and intermediate AMD, or resulting from the potential in-licensing or acquisition of additional product candidates or technologies, or any associated development we may pursue. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect.

We expect the development of our product candidates will continue for at least the next several years. Although we believe we have sufficient financial resources for the activities necessary to complete development of, including manufacturing scale-up and validation activities, and potentially seek marketing approval of Zimura in GA, we expect we will require additional funding in order to launch and commercialize Zimura in GA, if approved. We also expect we will require substantial, additional funding in order to complete the activities necessary to develop and commercialize Zimura for other indications or any of our other product candidates. At this time, we cannot reasonably estimate the total remaining costs necessary to complete development, to complete process development and manufacturing scale-up and validation activities and to potentially seek marketing approval for Zimura for any other indication or for any of our other product candidates.

Our future capital requirements will depend on many factors, including:

- the scope, progress, costs and results of our current and future Zimura clinical programs and any further development we may undertake to enable us to file an NDA and an MAA for Zimura in one or more indications;
- the scope, progress, costs and results of process development, manufacturing scale-up and validation activities, analytical method development and qualification, and stability studies associated with Zimura and our other product candidates;

- the timing, scope and costs of establishing a commercial infrastructure for potential commercialization of Zimura and for any other product candidates for which we receive, or expect to receive, marketing approval;
- the costs, timing and outcome of regulatory filings and reviews of our product candidates, including the potential submission and regulatory review of an NDA and an MAA for Zimura in GA;
- our ability to establish collaborations on favorable terms, if at all, if we choose to do so, including a potential collaboration for the further development and potential commercialization of Zimura in one or more territories outside the United States, and a collaboration or out-license for the further development and potential commercialization of IC-100 and IC-200;
- the extent to which we in-license or acquire rights to, and undertake research or development of, additional product candidates or technologies, including sustained release delivery technologies for Zimura;
- the scope, progress, costs and results of our efforts to develop IC-500, including activities to establish manufacturing capabilities and other preclinical development activities to enable us to file an IND for this product candidate;
- the scope, progress, costs and results from our gene therapy research programs, including costs related to the in-license and future development of any promising product candidates and technologies that emerge from these programs;
- the timing and extent of delays or disruptions to our research and development programs as a result of the COVID-19 pandemic;
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending intellectual property-related claims; and
- subject to receipt of marketing approval, net revenue received from commercial sales of any of our product candidates, after milestone payments and royalty payments that we would be obligated to make.

We do not have any committed external source of funds. Our ability to raise adequate additional financing when needed, and on terms acceptable to us, will depend on many factors. These factors include investors' perceptions of the potential success of our ongoing business, including the development of our product candidates and other programs, and the potential future growth of our business. Additionally, these factors include general market conditions that also affect other companies. For example, the COVID-19 pandemic and governmental responses to the pandemic have caused volatility and uncertainty in the financial markets as well as additional volatility in the price of our stock, which may result in prospective investors being less likely to invest new capital. These factors may make raising capital difficult, and may result in us accepting terms that are unfavorable to us, especially if we are in need of financing at the particular time. We may not be able to successfully raise additional capital in the future. The size of our company and our status as a company listed on The Nasdaq Global Select Market, or Nasdaq, may also limit our ability to raise financing. For example, our ability to raise adequate financing through a public offering may be limited by market conditions and SEC rules based on our current market capitalization. Nasdaq listing rules also generally limit the number of shares we may issue in a private placement to a number less than 20% of the number of shares of our common stock outstanding immediately prior to the transaction, unless we issue such shares at a premium, which investors may be unwilling to accept, or unless we obtain shareholder approval, which can be expensive and time-consuming and can add risk to our ability to complete the financing transaction. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate the development of one or more of our product candidates, our gene therapy research programs, or our future commercialization efforts.

We may require additional funding beyond what we currently expect due to unforeseen or other reasons. Our costs may exceed our expectations if we experience an issue in our clinical trials, such as issues with patient enrollment, the retention of enrolled patients, enrolled patients maintaining scheduled visits and receiving scheduled treatments, or the availability of drug supply, if we experience an issue with manufacturing, such as issues with process development, scale-up and validation, or establishing and

qualifying second source suppliers and ensuring adequate inventory for our expected needs, if we experience an issue in our preclinical development programs, such as unfavorable toxicology or other preclinical data, or if we modify or further expand the scope of our clinical trials, preclinical development programs or gene therapy research programs. Our costs may also exceed our expectations for other reasons, for example, if we are required by the FDA, the EMA, or regulatory authorities in other jurisdictions to perform clinical trials or nonclinical or other studies in addition to those we currently expect to conduct. For example, we are conducting the GATHER2 trial with the expectation that data collected from such trial, if it is positive, together with other available data, will be sufficient to support an application for marketing approval in the United States and the European Union and we may subsequently decide to, or be required by regulatory authorities to, enroll additional patients in the GATHER2 trial, or conduct additional clinical trials or nonclinical studies of Zimura in order to seek or maintain marketing approval or qualify for reimbursement approval. In addition, the COVID-19 pandemic may result in disruptions to the progress of the GATHER2 or STAR trials, including slowing patient enrollment in STAR or causing enrolled patients in either trial to miss their scheduled visits or drop out in greater numbers than we expect, or disruptions to our other research and development programs, which could cause us to continue to expend our cash resources while not progressing our research and development programs as expeditiously as we would have had the pandemic not occurred or persisted. As a result of any of the above, we may need or may seek to obtain additional funding for our continuing operations sooner or in greater amounts than expected.

Our need for additional financing may continue even if we are able to successfully develop one or more of our product candidates. Our future commercial revenues, if any, will be derived from sales of such product candidates, which may not be available for at least several years following completion of successful product development, if at all. In addition, if approved, our product candidates may not achieve commercial success. Even if those products are successful and we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Under most, if not all, of the foregoing circumstances, we may need to obtain substantial additional financing to achieve our business objectives.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

Until such time, if ever, when we can generate substantial product revenues, we may need or may seek to finance our operations through a combination of equity offerings, debt financings, collaborations, strategic alliances and marketing, distribution or licensing arrangements. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, our existing stockholders' ownership interests would be diluted, and the terms of these new securities may include liquidation or other preferences that adversely affect our existing stockholders' rights as common stockholders. The dilutive effect of future equity issuances may be substantial, depending on the price of our common stock at the time of such capital raise, with a lower stock price translating to greater dilution for existing stockholders. 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, declaring dividends or entering into certain investments or transactions.

In addition, we have issued, and may in the future issue additional, equity securities as consideration for business development transactions, which may also dilute our existing stockholders' ownership interests. For example, under the agreement and plan of merger pursuant to which we acquired Inception 4, or the Inception 4 Merger Agreement, we issued an aggregate of 5,174,727 shares of our common stock as up-front consideration to the former equityholders of Inception 4. The Inception 4 Merger Agreement also requires us to make payments to the former equityholders of Inception 4 upon the achievement of certain clinical and regulatory milestones, subject to the terms and conditions set forth in the Inception 4 Merger Agreement. Those milestone payments will be in the form of shares of our common stock, calculated based on the price of our common stock over a five-trading day period preceding the achievement of the relevant milestone, unless and until the issuance of such shares would, together with all other shares issued under the Inception 4 Merger Agreement, exceed an overall maximum limit of approximately 7.2 million shares, which is equal to 19.9% of the number of issued and outstanding shares of our common stock as of the close of business on the business day prior to the closing date of our acquisition of Inception 4, and will be

payable in cash thereafter. In July 2019, we also issued 75,000 shares of our common stock to UMass as partial upfront consideration for the in-license of our miniCEP290 program, and are obligated to issue up to 75,000 additional shares to UMass upon the achievement of a development milestone.

In March 2021, we filed a shelf registration statement on Form S-3, or the March 2021 Shelf Registration, pursuant to which we may offer and sell shares of common stock, debt securities and other securities for aggregate gross sale proceeds of up to \$300.0 million, of which we may offer and sell up to \$100.0 million from time to time pursuant to the ATM Sales Agreement with Cowen, subject to the terms and conditions described in the ATM Sales Agreement and SEC rules and regulations. In October 2021, we filed an automatically effective shelf registration statement on Form S-3, or the October 2021 Shelf Registration, pursuant to which we may offer and sell an indeterminate amount of shares of common stock, debt securities and other securities. In July 2021, we issued and sold 13,397,500 shares of our common stock in an underwritten public offering under the March 2021 Shelf Registration. We have not yet issued and sold any securities under the October 2021 Shelf Registration or any shares of common stock under our “at-the-market” offering program. If we make further sales under the March 2021 Shelf Registration, or if we make sales under the October 2021 Shelf Registration, including the securities being offered in this offering, or our “at-the-market” offering program, the sales could dilute our stockholders, reduce the trading price of our common stock or impede our ability to raise future capital.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, products or product candidates or grant licenses on terms that may not be favorable to us. If we choose to pursue a collaboration for any of our product candidates, we may be required to relinquish certain valuable rights depending on the terms of such a transaction. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to grant rights to develop and market products or product candidates that we would otherwise prefer to develop and market ourselves.

The COVID-19 pandemic, which is a fluid and evolving situation, has adversely affected and may continue to negatively affect our business and operations in a number of ways, and its long-term effects are uncertain. In addition, the pandemic has caused substantial disruptions in the financial markets and economies, which could adversely affect our business and operations.

The COVID-19 pandemic, which began in December 2019, has spread worldwide. A majority of the world’s population has been affected by government efforts to slow the spread of the outbreak through stay-at-home and social distancing orders, shutdowns of businesses and public places, heightened border security, travel restrictions, quarantines and other measures. The COVID-19 pandemic and government measures taken in response have had a significant impact, both direct and indirect, on businesses and commerce, as a substantial number of people have been required to stay and work from home; worker shortages have occurred; supply chains have been disrupted; facilities and production have been suspended; and demand for certain goods and services, such as medical services and supplies, has spiked, while demand for other goods and services, such as travel and conferences, has fallen.

Beginning in March 2020, the COVID-19 pandemic and measures taken to contain it have affected our business and operations in a number of ways. These include, but are not limited to, the following:

- **Clinical Trial Operations.** In March 2020, we decided to delay the initiation of patient enrollment in our GATHER2 trial. As we initiated patient enrollment in June 2020, we and our clinical trial sites implemented new health and safety practices to mitigate the effects of the COVID-19 pandemic and to support patients and site staff. In addition, we added more than 30 new sites to the GATHER2 trial to help with patient recruitment. Although we have since completed patient enrollment in GATHER2, we may face difficulties in retaining patients or maintaining scheduled visits to the extent patients are affected by the virus or lockdown measures or are fearful of visiting or traveling to our clinical trial sites because of the pandemic. We are aware that a number of patients initially enrolled in the STAR trial missed consecutive visits during the early months of the pandemic, and that a number of patients in our Latin America sites for GATHER2 missed visits because of the COVID-19 pandemic. We do not yet know whether the number of missed visits will increase or decrease in the GATHER2 or STAR trials, or what the impact of missed visits may be on patient retention in those

trials or the trial results, especially because we are masked to the treatment of patients during the conduct of the trials. We have been and continue to monitor the situation closely. For a more detailed discussion of the impact of the COVID-19 pandemic on our clinical trial operations, please see the Risk Factor titled, *“The COVID-19 pandemic has affected and may continue to affect the initiation and conduct of our clinical trials, including the retention of patients for our GATHER2 clinical trial and patient recruitment and retention for our STAR clinical trial. It may have long-lasting effects on the conduct of clinical trials, which can make our ongoing and any future trials more difficult, costly or time consuming”*.

- Third-Party Collaborators and Vendors. Many of our third-party contract manufacturers, academic research collaborators and contract research organizations limited their operations and staff during the COVID-19 pandemic, which resulted in delays to some of our manufacturing and research and development activities and limited our ability to be on site to oversee these activities. For example, the closure of animal research laboratories at UMMS for several months during 2020 caused delays to the progress of, and to our timelines for receipt of data from, our gene therapy research programs. Recently, several of our vendors have been facing backlogs due to work and demands from other clients, including those who are developing vaccines or medicines for the COVID-19 pandemic, which has limited their availability to perform work for us. For example, this situation has limited the number of contract research organizations and their availability for conducting a number of planned preclinical studies for IC-500, which caused us to modify our plans for these studies, including by performing internally some of the activities originally planned to be conducted by outside vendors. At this time, we do not know whether there will be further impact on the work of our third-party vendors and collaborators due to the COVID-19 pandemic.
- Supply Chain and Materials. Shortages, delays and governmental restrictions arising from the COVID-19 pandemic have disrupted and may continue to disrupt the ability of our contract manufacturers to procure items, such as raw materials, that are essential for the manufacture of our product candidates. For example, during 2020, our contract manufacturer for IC-500 experienced a shortage in obtaining one of the critical raw materials that was sourced from China, which was caused by the shutdown of local suppliers and the slowdown in trade due to the COVID-19 pandemic. This shortage delayed our process development activities for the drug substance for IC-500 by a number of months. In addition, since 2020, there have been shortages of various animals used in research studies, such as several types of non-human primates, which are typically sourced from China, due to the COVID-19 pandemic and disruptions to the global supply chain. Although our development programs have not yet been affected by these shortages, we are continuing to monitor the situation. Furthermore, we recently learned that one of our Zimura drug substance manufacturers was experiencing issues with procuring a critical starting material common to many manufacturing processes, which occurred due to recent supply chain interruptions. This issue has resulted in a delay to our manufacturing timelines with this contract manufacturer and we are continuing to monitor the situation.
- Remote Working. We instituted company-wide remote working starting in March 2020. We are planning for a gradual return to working in our offices and expect to continue to work mostly remote for the near future. We have been relying on remote means of working and communication both internally and externally. We are continuing to monitor and support the health and well-being of our employees and their productivity as remote working continues.

The progression of the COVID-19 pandemic remains fluid and its impact on our business and operations remains uncertain. Starting in late 2020, many countries and regions, including many states in the United States, have experienced, and are recently experiencing, a surge in the number of new cases, including as a result of new variants to the SARS-COV-2 virus, which have caused public health authorities to reimpose restrictive measures. In addition, although the FDA has fully approved one vaccine for this disease and has granted emergency use authorization to two other vaccines, there continue to be challenges with increasing the percentage of vaccinated individuals among the general population, and the long-term safety and efficacy and ability of these vaccines to slow transmission, including against new variants of the virus, are largely unknown. In the United States and some other countries, vaccine mandates remain controversial and the reluctance of many individuals to get COVID-19 vaccines may affect the work of our vendors and other third parties providing services for us. In addition, many countries, including several

countries where we are conducting the GATHER2 and STAR trials, are lagging behind the United States in administering vaccines to their populations and experiencing longer or more extensive surges in COVID-19 cases. As a result, governments may continue to deploy measures to contain the pandemic for a prolonged period of time. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition will depend on developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning COVID-19 and new variants of the virus, the actions taken to contain it or lessen its impact, including the availability, effectiveness and administration of vaccines, and the economic impact on local, regional, national and international markets. For example, the FDA has approved the use of three booster shots for certain individuals because of decreases in efficacy. If the delays and other disruptions due to the pandemic become prolonged or more extensive, then we may experience further delays or disruptions to our research and development programs and our financial position, results of operations or cash flows for future periods may be materially affected.

In addition, many companies have been using force majeure clauses in their contracts to excuse or delay performing under their contracts. Our contract manufacturers, academic research collaborators, contract research organizations and other third parties on whom we rely for goods or services may make similar claims. If any such force majeure claims were successful, then not only would our timelines be delayed but also our right to recover for any economic damages due to the delay would be limited. Because we rely on many single-source suppliers, any such claims from them are likely to result in a delay to our timelines or otherwise adversely affect our operations or financial position.

We cannot foresee if and when the COVID-19 pandemic will be effectively contained, nor can we predict the severity and duration of the impact of the pandemic on our financial condition or operations. We may experience additional disruptions to our clinical trials or supply chains, and closures of facilities, such as clinical trial sites, academic research centers and suppliers, including single source suppliers, and delays in interactions with regulatory agencies or obtaining approvals for our product candidates. In addition, the effects of COVID-19 on the financial markets could hamper our ability to raise additional finances. Additional public health crises and natural disasters, such as future epidemics or pandemics or those resulting from the effects of climate change, may arise in the future. Any of these events may materially and adversely affect our business operations and financial condition.

Our strategy of obtaining additional rights to products, product candidates or technologies for the treatment of retinal diseases may not be successful. We may not be successful in obtaining rights to and developing a sustained release delivery technology for Zimura.

An element of our strategy over the past few years has been to expand our pipeline through in-licensing or acquiring the rights to products, product candidates or technologies that would complement our strategic goals as well as other compelling retina opportunities. Since early 2018, we have completed multiple acquisition, in-license, exclusive option and sponsored research arrangements for product candidates and other technologies intended to treat retinal diseases. We plan to continue to evaluate additional opportunities to in-license or acquire products, product candidates and technologies on a selective and targeted basis, with a focus on sustained release delivery technologies for Zimura. We may also continue to consider other alternatives, including mergers, acquisitions, asset purchases or sales and/or other transactions involving our company as a whole or other collaboration transactions, including potential collaboration or out-license opportunities for further development and potential commercialization of Zimura in one or more territories outside the United States and collaboration or out-license opportunities for further development of IC-100 and/or IC-200. Our business development efforts may fail to result in our acquiring rights to additional products, product candidates or technologies, or may result in our consummating transactions with which you do not agree.

We may be unable to in-license or acquire the rights to any such products, product candidates or technologies from third parties for several reasons. The success of this strategy depends partly upon our ability to identify, select and acquire or in-license promising product candidates and technologies. For potential sustained release delivery technologies, that process typically involves conducting a feasibility study of Zimura formulated with the sustained release delivery technology and analyzing the resulting formulation, which can be time-consuming, costly and uncertain in outcome. If a formulation is promising

based on the analytical results, we could then proceed to negotiate a longer term collaboration. The process of proposing, negotiating and implementing a license or acquisition of a product candidate or technology is lengthy and complex. With respect to potential product candidates or technologies for which we have entered into option agreements or sponsored research agreements for which we have option rights, our agreements generally do not have fixed economic or other key terms for definitive agreements, and we may not obtain favorable terms if and when we choose to exercise our option to acquire or in-license any product candidates or technologies.

The in-licensing and acquisition of pharmaceutical products is an area characterized by intense competition, and a number of companies (both more established and early stage biotechnology companies) are also pursuing strategies to in-license or acquire product candidates or technologies that we may consider attractive. More established companies may have a competitive advantage over us due to their size, cash resources and greater research, preclinical or clinical development, manufacturing or commercialization capabilities, while earlier stage companies may be more aggressive or have a higher risk tolerance. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to in-license or acquire the rights to the relevant product candidate or technology on terms that would allow us to make an appropriate return on our investment. Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts or we may incorrectly judge the value of an acquired or in-licensed product candidate or technology.

Further, any product candidate that we acquire or in-license would most likely require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and applicable foreign regulatory authorities. For potential sustained release delivery technologies with Zimura, we expect any promising technologies would require extensive preclinical and clinical testing and investment in manufacturing before any potential approval by the FDA or other regulatory authorities. All product candidates are prone to risks of failure typical of pharmaceutical product development, including the possibility that a product candidate would not be shown to be sufficiently safe and effective for approval by regulatory authorities.

If we are unable to successfully obtain rights to suitable product candidates or technologies, our business, financial condition and prospects for growth could suffer. In addition, acquisitions and in-licensing arrangements for product candidates and technologies are inherently risky, and ultimately, if we do not complete an announced acquisition or license transaction or integrate an acquired or licensed product candidate or technology successfully and in a timely manner, we may not realize the benefits of the acquisition or license to the extent anticipated and the perception of the effectiveness of our management team and our company may suffer in the marketplace. In addition, even if we are able to successfully identify, negotiate and execute one or more transactions to acquire or in-license new product candidates or technologies, our expenses and short-term costs may increase materially and adversely affect our liquidity.

In addition, acquisitions and in-licenses may entail numerous operational, financial and legal risks, including:

- exposure to known and unknown liabilities, including possible intellectual property infringement claims, violations of laws, tax liabilities and commercial disputes;
- incurrence of substantial debt, dilutive issuances of securities or depletion of cash to pay for acquisitions or in-licensing transactions;
- higher than expected acquisition and integration costs;
- difficulty in combining the operations and personnel of any acquired businesses with our operations and personnel;
- inability to maintain uniform standards, controls, procedures and policies;
- restructuring charges related to eliminating redundancies or disposing of assets as part of any such combination;
- large write-offs and difficulties in assessing the relative percentages of in-process research and development expense that can be immediately written off as compared to the amount that must be amortized over the appropriate life of the asset;

- increased amortization expenses or, in the event that we write-down the value of acquired assets, impairment losses;
- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership;
- inability to retain personnel, key customers, distributors, vendors and other business collaborators integral to an in-licensed or acquired product candidate or technology;
- potential failure of the due diligence process to identify significant problems, liabilities or other shortcomings or challenges of an acquired or licensed product candidate or technology, including problems, liabilities or other shortcomings or challenges with respect to intellectual property, data or product quality, revenue recognition or other accounting practices, partner disputes or issues and other legal and financial contingencies and known and unknown liabilities; and
- entry into therapeutic approaches, indications or markets in which we have no or limited direct prior development or commercial experience and where competitors in such markets have stronger market positions.

We and certain of our current and former board members and executive officers were named as defendants in lawsuits that could result in substantial costs and divert management's attention. We are in the process of settling those lawsuits but the settlements are not yet final.

We and certain of our current and former executive officers were named as defendants in a purported consolidated putative class action lawsuit initiated in 2017 that generally alleges that we and certain of our officers violated Sections 10(b) and/or 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder by making allegedly false and/or misleading statements concerning the results of our Phase 2b trial and the prospects of our Phase 3 trials for our prior product candidate Fovista in combination with anti-VEGF agents for the treatment of wet AMD. Certain current and former members of our board of directors and current and former officers were also named as defendants in two shareholder derivative actions initiated in August 2018 and May 2021 respectively, which generally allege that the defendants breached their fiduciary duties to our company by failing to oversee our business during the period of the Phase 2b and Phase 3 clinical trials of Fovista. These complaints seek equitable and/or injunctive relief, unspecified damages, attorneys' fees, and other costs. On September 8, 2021, the parties in the class action executed a settlement agreement, which has been submitted to the court for approval. We expect our directors' and officers' liability insurance to cover the costs of the settlement, including plaintiff counsel's fees. The shareholder derivative actions were stayed while a special litigation committee of our board of directors, or the SLC, investigated the allegations contained in the complaints. The SLC and the plaintiffs for the derivative matters recently agreed in principle on a settlement and are conducting settlement agreement discussions. We are unable, however, to predict the outcome of these matters, including that of the settlement agreement discussions, at this time. Moreover, any conclusion of these matters in a manner adverse to us and for which we incur substantial costs or damages not covered by our directors' and officers' liability insurance could have a material adverse effect on our financial condition and business. In addition, the litigation, including in responding to discovery requests, has caused our management and board of directors to divert time and attention to the litigation and could adversely impact our reputation and further divert management and our board of directors' attention and resources from other priorities, including the execution of our business plan and strategies that are important to our ability to grow our business, any of which could have a material adverse effect on our business. Regardless of whether these lawsuits are finally settled, additional lawsuits may be filed against us.

Risks Related to Product Development and Commercialization

Companies in our industry face a wide range of challenging activities, each of which entails separate, and in many cases substantial, risk.

The long-term success of our company, and our ability to become profitable as a biopharmaceutical company, will require us to be successful in a range of challenging activities, including:

- designing, conducting and successfully completing preclinical research and development activities, including preclinical efficacy and IND-enabling studies, for our product candidates;
- making arrangements with third-party manufacturers and providers of starting materials for our product candidates, and having those manufacturers successfully develop manufacturing processes for drug substance and drug product and provide adequate amounts of drug product for preclinical and clinical activities in accordance with our expectations and regulatory requirements;
- designing, conducting and completing clinical trials for our product candidates;
- obtaining favorable results from required clinical trials, including for each ophthalmic product candidate, favorable results from two adequate and well-controlled pivotal clinical trials in the relevant indication;
- applying for and receiving marketing approvals from applicable regulatory authorities for the marketing and sale of our product candidates;
- making arrangements with third-party manufacturers for scale-up and commercial manufacturing, validating and receiving regulatory approval of our manufacturing processes and our third-party manufacturers' facilities and ensuring adequate supply of drug substance and drug product and starting materials used for the manufacture of drug substance and drug product;
- establishing sales, marketing and distribution capabilities, either internally or through collaborations or other arrangements, to effectively market and sell our product candidates, if and when approved;
- achieving acceptance of the product candidate, if and when approved, by patients, the medical community and third-party payors;
- if our product candidates are approved, obtaining from governmental and third-party payors adequate coverage and reimbursement for our product candidates and, to the extent applicable, associated injection procedures conducted by treating physicians;
- effectively competing with other therapies, including the existing standard of care, and other forms of drug delivery;
- maintaining a continued acceptable safety profile of the product candidate during development and following approval;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity, including under the Orphan Drug Act and the Hatch-Waxman Amendments to the Federal Food, Drug and Cosmetic Act, or FDCA, if we choose to seek such protections for any of our product candidates;
- protecting and enforcing our rights in our intellectual property portfolio; and
- complying with all applicable regulatory requirements, including Good Laboratory Practices, or GLP, Good Clinical Practices, or GCP, current Good Manufacturing Practices, or cGMP, and standards, rules and regulations governing promotional and other marketing activities.

Each of these activities has associated risks, many of which are detailed below and throughout this "Risk Factors" section. We may never succeed in these activities and, even if we do, may never generate revenues from product sales that are significant enough to achieve commercial success and profitability. Our failure to be commercially successful and profitable would decrease the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product offerings or continue our operations. A decrease in the value of our company would also cause our stockholders to lose all or part of their investment.

Drug development is a highly uncertain undertaking. Our research and development efforts may not be successful or may be delayed for any number of reasons, in which case potential clinical development, marketing approval or commercialization of our product candidates could be prevented or delayed.

Before obtaining approval from regulatory authorities for the sale of any product candidate, we must conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidate in humans. Prior to initiating clinical trials, we must complete extensive preclinical testing of a product candidate,

including, in most cases, preclinical efficacy experiments as well as IND-enabling toxicology studies. Drug research, including the gene therapy research we are pursuing, may never yield a product candidate for preclinical or clinical development. Early stage and later stage research experiments and preclinical studies, including the preclinical studies we are conducting and planning to conduct for IC-500, may fail at any point or produce unacceptable or inconclusive results for any number of reasons, and even if completed, may be time-consuming and expensive. As a result of these risks, a potentially promising product candidate may never be tested in humans. For example, we observed different findings across the two different species in which we tested IC-100 in preclinical toxicology studies, which we planned to discuss with the FDA before submitting an IND. The FDA advised, in lieu of this meeting, additional discussion should be conducted during the 30-day IND review period following IND submission. At this time, we are planning to seek a collaborator or licensee for the further development of this product candidate.

Once it commences, clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur 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. For example, our pivotal Phase 3 Fovista program for the treatment of wet AMD failed to produce positive safety and efficacy data that support the use of Fovista in wet AMD, despite the results from preclinical testing and earlier clinical trials of Fovista, including a large Phase 2b trial with a statistically significant efficacy signal. Additionally, although the 18-month results from our GATHER1 trial supported the 12-month results in this trial, at which time Zimura met the prespecified primary endpoint in reducing the mean rate of GA growth in patients with GA with statistical significance across both the Zimura 2 mg and Zimura 4 mg treatment groups when compared to the corresponding sham control groups while maintaining a favorable safety profile, these results may not be replicated in the GATHER2 trial or any future trials we may conduct for Zimura in GA or other indications. The results of our planned Phase 3 clinical trial studying Zimura in intermediate AMD may not replicate the results we observed after conducting post-hoc analyses of the GATHER1 data and the Phase 3 clinical trial may not be adequately powered to detect a difference in the primary endpoint with statistical significance. 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.

We may experience numerous unforeseen events during drug development that could delay or prevent our ability to receive marketing approval or commercialize our product candidates. These risks include, but are not limited to, the following:

- we may not be able to generate sufficient preclinical, toxicology, or other *in vivo* or *in vitro* data to support the initiation of clinical trials for any preclinical product candidates that we are developing;
- we or our contract manufacturers may be unable to develop a viable manufacturing process for any product candidates that we are developing;
- the supply or quality of our product candidates or other materials necessary to conduct preclinical development and clinical trials of our product candidates may be insufficient or we may face delays in the manufacture and supply of our product candidates for any number of reasons, including as a result of interruptions in our supply chain, including in relation to the procurement or quality of starting materials, such as the polyethylene glycol, or PEG, and dichloroacetic acid, or DCA, used for the manufacture of Zimura, and issues with the packaging, distribution, storage and import/export of materials and products;
- we or our contract research organizations may be unable to complete necessary analytical method development for testing our product candidates;
- we may not be able to successfully scale up or validate a manufacturing process for one or more of our product candidates, including the manufacturing process for Zimura, and may need to rely on second source suppliers for adequate supply of drug substance and/or drug product in line with our needs and expectations;
- regulators or institutional review boards may not agree with our clinical trial designs, including our selection of endpoints, or 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 clinical trial contracts or clinical trial protocols with prospective contract research organizations or clinical trial sites, especially in cases where we are working with contract research organizations or clinical trial sites we have not worked with previously;
- our contract research organizations, clinical trial sites, contract manufacturers, providers of starting materials and packagers and analytical testing service providers may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we, through our clinical trial sites, may not be able to locate and enroll a sufficient number of eligible patients to participate in our clinical trials as required by the FDA or similar regulatory authorities outside the United States, especially in our clinical trials for orphan or other rare diseases;
- we, through our clinical trial sites, may not be able to maintain enrolled patients for scheduled visits and treatments, or to retain patients altogether, especially in light of the COVID-19 pandemic, which could result in missing data from our clinical trials, potentially leading to uninterpretable results or a clinical trial not being sufficiently powered to demonstrate an efficacy benefit;
- we may decide, or regulators or institutional review boards may require us, to suspend or terminate clinical trials for various reasons, including noncompliance with regulatory requirements, including GCPs, or a finding that the participants are being exposed to unacceptable health risks;
- as there are no therapies approved for GA, intermediate AMD, or Stargardt disease, in either the United States or the European Union, the regulatory pathway for product candidates in those indications, including the selection of efficacy endpoints and their clinical meaningfulness, is highly uncertain;
- there may be changes in regulatory requirements and guidance or we may have changes in trial design that require amending or submitting new clinical trial protocols;
- there may be changes in the standard of care on which a clinical development plan was based, which may require new or additional trials;
- we may decide, or regulators may require us, to conduct additional clinical trials or nonclinical studies beyond those we currently contemplate or to abandon product development programs;
- the number of patients required for clinical trials of our product candidates to demonstrate statistically significant results may be larger than we anticipate. This risk may be heightened for clinical trials in orphan diseases, for which the natural history of the disease is less understood, making it more difficult to predict the drug effect required to adequately demonstrate efficacy, and because there are fewer affected individuals available to participate in clinical trials; and
- the cost of clinical trials of our product candidates, including the costs of manufacturing activities to support those clinical trials, may be greater than we anticipate.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we contemplate, if we otherwise change our clinical development plans, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval 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 limitations, distribution restrictions or safety warnings, including boxed warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Despite our ongoing efforts, we may not complete any of our ongoing or planned development activities for our product candidates. The timing of the completion of, and the availability of results from,

development activities is difficult to predict. For clinical trials in particular, we do not know whether they will begin as planned, will need to be restructured or will be completed on schedule, or at all. The progress of our clinical trials may be dependent on macro-economic events beyond our control, such as the COVID-19 pandemic. For example, the pandemic and governmental measures instituted in response to the pandemic have caused a number of missed visits in the GATHER2 trial and may cause additional patients to miss visits or drop out of the trial, which could result in missing data from this trial. Furthermore, our development plans may change based on feedback we may receive from regulatory authorities throughout the development process or for other reasons. For example, our expectations regarding the remaining clinical requirements to demonstrate the safety and efficacy of Zimura for the treatment of GA secondary to AMD in a manner sufficient to support an application for marketing approval to the FDA are based on the Special Protocol Assessment, or SPA, we recently received from the FDA for the GATHER2 trial and our review of the 12-month and 18-month data from the GATHER1 trial. Our expectations regarding the minimum clinical requirements to demonstrate the safety and efficacy of Zimura for GA may change as we continue to have interactions with the FDA and potentially with the EMA and other regulatory authorities, as we conduct our GATHER2 trial, and as new regulatory or third party information, including that of our competitors, third-party clinical data or information from prospective collaborators or licensees, becomes available. If we experience delays in manufacturing, testing or marketing approvals, our product development costs would increase. Significant product development delays also could allow our competitors to bring products to market before we do, could impair our ability to successfully commercialize our product candidates, including by shortening any periods during which we may have the exclusive right to commercialize our product candidates, and may otherwise harm our business and results of operations.

Our development of Zimura is based on a novel mechanism of action that is unproven in GA, intermediate AMD and STGD1 and poses a number of scientific and other risks, and we may not be successful in developing Zimura in the indications we are pursuing or in any other indication we may choose to pursue.

We are currently targeting GA and intermediate AMD, which are an advanced form and an earlier form of AMD, respectively, and STGD1 with Zimura. The causes of AMD are not completely understood. In addition to advanced age, there are environmental and genetic risk factors that contribute to the development of AMD including ocular pigmentation, dietary factors, a positive family history for AMD, high blood pressure and smoking. Although we believe there is a scientific rationale for pursuing the development of inhibitors of the complement system as potential pharmaceutical treatments for GA secondary to AMD, and that the results from our GATHER1 trial of Zimura in GA and from a competitor's trials of its complement inhibitor in GA support our view, this approach may not prove successful for treating GA secondary to AMD in a clinically meaningful way. Similarly, although there is nonclinical scientific literature supporting the potential use of complement system inhibitors for the treatment of STGD1, we have not yet completed a clinical trial assessing Zimura for the treatment of STGD1 and do not have any unmasked data regarding the efficacy of Zimura in this indication. As a result, this approach may not prove clinically successful.

Zimura is designed to inhibit complement protein C5. There are no FDA or EMA approved products that utilize C5 inhibition as a mechanism of action to treat GA, intermediate AMD or STGD1. There have been other investigational products using complement inhibition as a mechanism of action for the treatment of GA, including inhibition of C5, that ultimately proved to be unsuccessful. Even though our GATHER1 trial of Zimura in GA met its prespecified primary endpoint at month 12 and continued to show positive treatment effect at month 18, this mechanism of action may not prove safe and effective for the treatment of GA, intermediate AMD, STGD1 or any other indication for which we may develop Zimura.

We are planning to initiate clinical development of Zimura in intermediate AMD based on results from a post-hoc analysis of data from our GATHER1 trial. Although there is nonclinical scientific literature supporting the potential use of complement system inhibitors for the treatment of intermediate AMD, we have not yet conducted a clinical trial assessing Zimura for the treatment of intermediate AMD. Intermediate AMD is a developing field of study whose patient population continues to be defined by, and any primary endpoints used to assess any treatments are new for, the medical community, and as such, the patient population and primary endpoint we choose for our planned Phase 3 clinical trial may not be accepted by regulators. We intend to seek regulatory feedback before initiating this trial in 2022, and regulatory authorities may disagree with our development and regulatory plans and strategy. We may also decide to pursue

clinical development of Zimura for other indications, including those we previously studied such as wet AMD and IPCV. Similar to GA and STGD1, Zimura, and the use of C5 inhibition, are unproven in those indications and we may not be successful in our efforts to develop Zimura for those indications.

The GATHER2 trial may yield results that are different from the results observed in the GATHER1 trial. An unfavorable result from the GATHER2 trial likely would materially and adversely affect our ability to obtain approval for Zimura in GA.

Unlike the GATHER1 trial, the GATHER2 trial includes only one treatment arm, Zimura 2 mg, in addition to a control arm. Several Phase 3 clinical trials for ophthalmic product candidates that have been, or are currently being, conducted by other sponsors include multiple treatment arms, either different doses or treatment regimens, in addition to a control arm. The FDA has expressed that including multiple study doses or treatment regimens within a single trial helps mitigate the risk of bias in the trial and is therefore recommended, although not required. We believe that the anatomical measure used as the primary efficacy endpoint in our GATHER2 trial, the mean rate of growth (slope) estimated based on GA area, as evaluated by an independent, masked reading center, is not subject to bias. We have decided to proceed with only one treatment arm in the GATHER2 trial consisting of a single monthly administration of Zimura 2 mg, because the 12-month data from the GATHER1 trial suggested that monthly administration of Zimura 2 mg provides a similar benefit (approximately 27%) in reducing the mean rate of GA growth over 12 months as compared to the corresponding sham control group, as measured by our primary endpoint, as Zimura 4 mg, and these results are supported by the results of the 18-month data, and because we want to avoid the treatment burden associated with the Zimura 4 mg dose evaluated in our GATHER1 trial. If the results from GATHER2 are positive, we plan to seek approval for the 2 mg dose of Zimura in GA. Additionally, for our GATHER2 trial, because we want to begin to evaluate the efficacy of a less frequent dosing regimen, we are re-randomizing the patients in the monthly Zimura 2 mg treatment arm at 12 months and evaluating dosing Zimura 2 mg every other month, a dosing regimen which we have not previously studied, in half of those patients during the second 12 months of the trial. The GATHER2 trial, however, is not designed to reliably assess any differences we observe between these treatment groups at 24 months with statistical significance and the label we would seek for Zimura in GA, if the results from the GATHER2 trial are positive, would in all likelihood provide for monthly administration of Zimura.

We are conducting the GATHER2 trial at many clinical trial sites and in many countries that were not included in the GATHER1 trial. The introduction of new sites, and the resulting involvement of new treating physicians, as well as potentially different patient demographics, can introduce additional variability into the conduct of the trial and may result in greater variability of patient outcomes, which could adversely affect our ability to detect statistically significant differences between patients treated with Zimura 2 mg and patients receiving sham control.

In addition, the 12-month and 18-month data from the GATHER1 trial suggested there is an overall dose response relationship in which higher doses of Zimura (for example, the 4 mg and the 2 mg doses) corresponded to a greater reduction in the mean rate of GA growth as compared to the corresponding sham group as compared to lower doses of Zimura (for example, the 1 mg dose). For our GATHER2 trial, for the reasons stated above, we have decided to proceed with only a 2 mg dose treatment arm and not include a 4 mg dose treatment arm. The 2 mg dose may prove not to be efficacious in treating GA. Additionally, unlike the protocol for the GATHER1 trial, the protocol of the GATHER2 trial provides that patients who develop CNV in the study eye in the trial may remain in the trial and receive either Lucentis® or Eylea® in accordance with the label for that anti-VEGF agent, and that measurements of these patients' GA will be included in the primary efficacy analysis if their fundus autofluorescence, or FAF, images can be assessed by the masked reading center. The retention of these patients in the GATHER2 trial may introduce additional variability not present in the GATHER1 trial, as we do not have any data regarding the progression of GA in patients with CNV who receive treatment with an anti-VEGF agent. Moreover, if a significant number of patients develop CNV in the study eye and these patients' FAF images are not reliably assessable, or if more patients than we anticipate drop out or their data is otherwise missing, any such occurrence would reduce the number of patients from whom data is available for analyzing the primary endpoint for this trial and the GATHER2 trial could be underpowered to demonstrate a potential clinical benefit for Zimura in GA with statistical significance.

Our intended regulatory pathway for generating sufficient safety and efficacy data to apply for and potentially obtain marketing approval for Zimura for GA is subject to several assumptions, including that we may be able to rely on the results from our GATHER1 and GATHER2 trials. Although we received a written agreement from the FDA under a SPA for the overall design of GATHER2 and the FDA indicated that as part of a future NDA submission, it will consider the GATHER1 data using the original prespecified primary efficacy endpoint analysis, together with the new FDA preferred method that we are using for GATHER2, the FDA, the EMA or other regulatory authorities may not accept the design or results of the GATHER1 or GATHER2 trials. We may decide to or may be required to enroll additional patients, collect additional safety data or conduct additional clinical trials or nonclinical studies to seek or obtain approval for Zimura in GA.

Based on the results of our GATHER1 trial, additional statistical analysis we have performed and discussions we have had with the FDA, we believe that the efficacy results from this trial would satisfy the FDA's requirements as one of the two pivotal clinical trials typically required for marketing approval. This belief is based on many assumptions, including that a reduction in mean rate of GA growth over 12 months, measured by FAF based on readings at three time points: baseline, month 6 and month 12, calculated using the square root transformation of the GA area, is a primary endpoint of clinical relevance, in the absence of a demonstrated reduction in the loss of vision, and that data from the GATHER1 trial is robust. The FDA, the EMA or other regulatory authorities may not agree with our view that the observed reduction in the rate of GA growth, calculated using the square root transformation, is clinically relevant or meaningful, or may require us to correlate this reduction in rate of GA growth with another outcome more directly associated with visual function. We are not currently planning to include visual function measures as primary or secondary efficacy endpoints in the GATHER2 trial and vision will be assessed as a safety endpoint. The FDA, the EMA or other regulatory authorities may disagree with our conclusion regarding the robustness of the data from the GATHER1 trial based on our sensitivity analyses or may conduct their own sensitivity analyses yielding different results. Even if we meet with the FDA, EMA or other regulatory authorities, we likely will not have an opportunity to obtain definitive confirmation from the FDA, EMA or other regulatory authorities regarding the sufficiency or robustness of the data from our clinical trials, including the GATHER1 trial, until such time as we submit an application for marketing approval and receive a response from the applicable authority. If the GATHER1 trial results are not considered robust, or if regulatory authorities do not accept the study designs of GATHER1 or GATHER2, including our selected primary efficacy endpoints, then in order to seek marketing approval we may need to conduct, in addition to the GATHER2 trial, one or more additional, adequate and well-controlled clinical trials that meet the applicable regulatory requirements in order to obtain marketing approval.

In parallel discussions with those for the GATHER2 SPA, the FDA indicated that, as part of a future NDA for Zimura, it would consider the results from GATHER1 using the original prespecified primary efficacy endpoint analysis, together with a post-hoc analysis we performed using the FDA-preferred method that will be used for the GATHER2 trial (mean rate of growth (slope) estimated based on GA area measured by FAF in the relevant timepoints). Although we believe that the post-hoc analyses from the GATHER1 trial are consistent with the positive results from the original prespecified analysis from the trial, any analyses, whether prespecified or post-hoc, that are intended to support an application for marketing approval are a matter of review for the FDA and other regulatory authorities, who may disagree with our methodologies and analyses for any number of reasons. The FDA, EMA or other regulatory authorities may take issue with the number of modifications we introduced to the GATHER1 trial following its commencement, which they may view as introducing additional uncontrolled variables. The FDA, EMA or other regulatory authorities may also take issue with the degree of data that are missing from the clinical data set from our GATHER1 trial, or with the rate at which patients withdrew from the trial. To the extent patients miss critical visits or drop out of the GATHER2 trial, we face a similar risk with GATHER2.

Based on discussions with the FDA including through the SPA process, following the GATHER1 trial, we believe we need to conduct one additional clinical trial with enough patients such that we will have safety data for a minimum of 300 patients having received the dose of Zimura for which we are seeking approval, or a higher Zimura dose, independent of indication, for a minimum of 12 months, with 24-month safety data available for some portion, but not all, of these 300 patients. This additional clinical trial would need to be adequate and well-controlled, with a primary efficacy analysis at the 12 month time point or later. We believe that if we were to file an application for marketing approval for Zimura for GA, we would be able to rely on safety data from our GATHER1 and GATHER2 trials in GA, as well as our STAR trial evaluating Zimura

for STGD1. We also believe that, if the data from the GATHER2 trial are positive, we would be able to submit our application following the primary efficacy and safety analysis for the GATHER2 study at the 12-month time point, without waiting for the full 24-month data package. We have designed our GATHER2 trial to meet these requirements, which, as we understand them, and if data from the GATHER2 trial are positive, will permit us to seek marketing approval for Zimura in GA in the United States and potentially the European Union. Since receiving the 12-month results from the GATHER1 trial, we have not had any scientific advice or other formal interactions with the EMA or competent national authorities in the European Union or United Kingdom regarding the sufficiency of the GATHER1 and GATHER2 trials, including our primary efficacy endpoint analyses, to support an application for marketing approval. As we continue to engage with regulatory authorities, including in Europe, we may receive feedback that is not consistent with our expectations, including potential disagreements by the EMA and other regulatory authorities with what we understand are the requirements of the FDA. Regulatory authorities may require us to enroll additional patients, collect additional safety data, conduct additional trials or take other actions, which would require us to revise our development plans for Zimura, including potentially changing the design of the GATHER2 trial, increase the costs of our Zimura clinical programs and delay our expected timelines. In addition, because of the COVID-19 pandemic or other reasons, we may experience a higher than anticipated rate of dropouts and missed visits and treatments in our GATHER2 trial, which could result in our not having adequate safety data for a sufficient number of patients to obtain marketing approval in GA, even if the primary efficacy endpoint is met and the results from the GATHER2 trial are otherwise positive.

Furthermore, our previous and ongoing Zimura clinical trials have evaluated Zimura dosing levels and regimens that we have studied only in cohorts consisting of a small number of patients. This approach may increase the risk that patients in our ongoing trials experience adverse events and/or serious adverse events (either ocular, systemic or both) that we have not observed or at rates that we have not observed in prior trials. Although we have not observed any adverse events or serious adverse events attributable by the investigators to the drug product in our GATHER1 trial, they may manifest in our GATHER2 trial, in our STAR trial or in any other subsequent clinical trials we or a potential collaborator may undertake for Zimura. When we follow patients for a longer period of time or collect safety data from a greater number of patients, we may observe safety events that we have not previously observed. For a further discussion of the safety risks in our trials, see the risk factor herein entitled *“If serious adverse or unacceptable side effects are identified during the development of our product candidates, we may need to abandon or limit our development of such product candidates. There are a number of known safety risks associated with our product candidates and currently unknown safety issues may arise during development.”*

Our ongoing clinical trials and any future clinical trials or other studies for Zimura that we or a potential collaborator may undertake may yield inconsistent safety or efficacy results with those we have observed to date or otherwise fail to demonstrate sufficient safety or efficacy to justify further development or to ultimately seek or obtain marketing approval. Any negative results from our ongoing or any future clinical trials or other studies for Zimura will likely adversely affect our business and the value of your investment in our company.

We have no unmasked clinical data regarding the safety and efficacy of Zimura as a treatment of STGD1. The dropout rate or patients with missing visits may reduce the number of patients from whom we can collect and analyze data from STAR. We may not be able to recruit additional patients for this trial in line with our expectations.

We have no unmasked clinical data regarding the safety and efficacy of Zimura as a treatment for STGD1. As STGD1 is an orphan indication, to our knowledge there is only very limited natural history data currently available regarding the variability of our planned primary efficacy endpoint in the STGD1 patient population we enrolled in this trial. Moreover, because Stargardt disease, like GA, is a degenerative disease, and in many cases, the rate of degeneration is slow, and because we are seeking to slow the progression of degeneration with Zimura, and not necessarily to reverse prior degeneration or restore visual function, patients participating in our STAR trial, who are generally younger and may experience vision loss that is more subtle than patients with GA or other forms of AMD, may not perceive a benefit from continuing to participate and therefore may drop out of this trial or miss scheduled visits and treatments. This risk is particularly magnified during the COVID-19 pandemic, which may cause our patients to voluntarily or involuntarily drop out of the trial or miss scheduled visits and treatments in greater numbers than before.

Although we and the investigators and their staffs take efforts to encourage continued patient participation, the dropout rate may exceed our expectations. A higher than expected dropout rate would reduce the number of patients from whom data is available for analyzing the primary endpoint for this trial. Given the information above, our STAR trial could be underpowered to demonstrate a potential clinical benefit for Zimura in STGD1 with statistical significance.

We have decided to enroll approximately 25 additional patients in this trial, with the goal of enrolling a total of approximately 120 patients. This change to the trial will increase the costs associated with this trial and has delayed the timelines for receipt of data from this trial. We believe an expanded trial could allow us to collect additional data regarding the effect of Zimura on STGD1 patients and help us mitigate the risks from additional patient dropouts and missed visits; however, these expectations may prove to be incorrect. We are continuing to recruit and enroll patients in this trial. Patient recruitment may take longer or cost more than we would expect.

The COVID-19 pandemic has affected and may continue to affect the initiation and conduct of our clinical trials, including the retention of patients for our GATHER2 clinical trial and patient recruitment and retention for our STAR clinical trial. It may have long-lasting effects on the conduct of clinical trials, which can make our ongoing and any future trials more difficult, costly or time consuming.

Our GATHER1, GATHER2 and STAR trials involve sites located across the United States and in many countries outside the United States. At the start of the COVID-19 pandemic in early 2020, we were conducting startup activities for the GATHER2 trial, and we were in the process of completing patient visits for our GATHER1 trial and those of the initially enrolled patients in the STAR trial. We have made a number of operational changes to our clinical trials as a result of the COVID-19 pandemic, its effects on current and prospective participating patients, and various governmental and other measures in response to the pandemic. As the COVID-19 pandemic evolves, we may make further changes to how we conduct our ongoing and any future clinical trials.

Patient enrollment, missed patient visits and patient retention remain key risks for our clinical trials. Due to the COVID-19 pandemic, we delayed the initiation of patient enrollment for the GATHER2 trial from March 2020 to June 2020. Even though we have completed patient enrollment for GATHER2, we are continuing to enroll patients in the STAR trial, where we may choose to or be required to slow down or stop patient enrollment in certain geographies due to the COVID-19 pandemic and any governmental measures taken in response. Patients, in turn, may be reluctant to enroll in clinical trials or to maintain their scheduled visits and treatments once enrolled due to their reluctance to visit clinical trial sites for fear of potential exposure to COVID-19 or ongoing restrictive measures requiring social distancing or limiting travel. These concerns may particularly apply to GA patients, many of whom are elderly and therefore at a higher risk for COVID-19 and other diseases than the general population.

For patients who are enrolled in our trials, the COVID-19 pandemic may cause them to miss study visits or drop out in greater numbers than expected, which could affect our ability to complete our trials and obtain data in accordance with our expectations. Compared to the generally elderly patients in our GATHER2 trial, the patients in the STAR trial are generally younger and have work and family commitments, which may cause them to miss more visits or drop out in greater numbers. In addition to the risks posed by increased patient dropouts, if patients miss scheduled visits in greater numbers as a result of the pandemic, especially if a patient misses consecutive visits, it may affect our ability to draw meaningful conclusions from the clinical data. We are aware that a number of patients initially enrolled in the STAR trial missed consecutive visits during the early months of the COVID-19 pandemic and that a number of patients in our Latin America sites for GATHER2 missed visits because of the COVID-19 pandemic. We do not know yet whether the number of missed visits will increase or decrease in any of these trials, and whether and to what extent missed visits may impact patient retention in these trials or the results of the trials, especially since we are masked to the data until the conclusion of the trials. The duration of the GATHER2 and STAR trials, at 24 months and 18 months, respectively, plus time for recruiting patients, makes them more likely to be affected by any subsequent waves of the COVID-19 pandemic.

The COVID-19 pandemic has caused many of our clinical trial sites and competent health authorities and ethics committees in certain countries to reduce their staff and operations. In 2020, this reduction in operations resulted in delays to the approval of and the site activation process for the GATHER2 trial in

certain geographies. During late 2020 to early 2021, a number of our clinical trial sites scaled back their operations because of surges in COVID-19 cases or new lockdown measures being imposed. We expect to initiate our planned clinical trial studying Zimura in intermediate AMD during 2022 and we plan to use many of the same sites that are in the GATHER2 trial. The sites may be assisting with database lock and related activities for GATHER2 around the same time that they may be preparing for and starting up the intermediate AMD trial. If any reductions in staff and operations continue to persist at the sites at that time, it may affect our conduct of the ongoing GATHER2 and planned intermediate AMD trials. Shortages of vaccines, personal protective equipment and other supplies for the prevention of COVID-19 and the proliferation of new variants of COVID-19 may cause our clinical trial sites to further scale back the number of staff on site and other operations, and may also cause prospective or enrolled patients to avoid clinical trial visits.

In addition to the disruptions to the operations of many clinical trial sites, the COVID-19 pandemic affected our monitoring and audit operations, for example, by requiring remote monitoring, remote source document verification and remote auditing in many instances. Some countries prohibit or limit remote source document verification due to privacy and other concerns. During 2020 and until recently, we experienced difficulties and delays in performing audits on most of our clinical trial sites because of privacy and other concerns with remote auditing. Although we do not believe the COVID-19 pandemic has materially affected the robustness of our data verification process for the GATHER1 trial, we or regulatory authorities may find data verification discrepancies upon reviewing the data from the trial. This risk may also affect our data verification processes for the GATHER2 and STAR trials.

Our development of IC-500 is also based on a novel mechanism of action that is unproven and poses a number of scientific and other risks.

IC-500, our selected product candidate from our HtrA1 inhibitor program, is in preclinical development. There are no FDA or EMA approved products that utilize HtrA1 inhibition as a mechanism of action for treating ophthalmic diseases, including GA and other age-related retinal diseases for which we may develop IC-500, and this mechanism of action may not prove safe and effective for these diseases. Although other companies are pursuing HtrA1 inhibition as a strategy for treating retinal diseases, including Genentech in an ongoing Phase 2 clinical trial in GA, to date, there is limited published clinical data regarding the safety and efficacy of HtrA1 inhibition in the target patient population. We are also aware that Genentech recently commenced a clinical trial to assess the long-term safety and tolerability of its monoclonal antibody HtrA1 inhibitor. We made the decision to acquire our HtrA1 inhibitors program in 2018 based on our interpretation of the scientific literature and rationale for this potential target that suggest an association between HtrA1 and the risk for AMD, as well as a limited set of preclinical data generated by Inception 4 prior to the acquisition. Even though genetic and histologic findings correlate HtrA1 with AMD, the development and progression of AMD may not be affected by HtrA1 or may be more strongly affected by other genes. Our hypothesis that targeting inhibition of HtrA1 may be a safe and effective method of treating AMD may ultimately be incorrect, which would likely adversely affect the value of IC-500 and its continued development.

To our knowledge, there are no suitable animal models for GA or dry AMD. This absence of a suitable animal model makes designing a proof of concept study to assess the preclinical efficacy of IC-500 difficult. To date, we have only generated limited preclinical data of IC-500 in animal studies and we are conducting and planning additional studies to assess the safety, pharmacokinetics and target engagement of IC-500 in animals, which ultimately may fail to produce favorable results. In addition, we have not had any formal or informal interactions with the FDA or other regulatory authorities regarding our development plans for IC-500. We do not know whether the FDA or other regulatory authorities will accept any preclinical proof of concept study we may propose, or other aspects of our development plans for IC-500. The FDA may require us to change our plans or conduct additional studies, which would increase our costs and delay our timelines.

Gene therapy is an emerging field of drug development that poses many scientific and other risks. We are refocusing our gene therapy development efforts from IC-100 and IC-200 to earlier stage research programs, and need to continue building our gene therapy capabilities. Our limited experience with gene therapy and the limited patient populations for our gene therapy programs may limit our ability to be successful or may delay our development efforts.

Gene therapy is an emerging field of drug development with only a small number of gene replacement therapies having received FDA approval to date. Our gene therapy research and development programs,

which we decided to undertake based on a review of a limited set of preclinical data, are still at an early stage. Even with promising preclinical data, there remains several areas of drug development risk, including translational science, manufacturing processes and materials, safety concerns, regulatory pathway and clinical trial design and execution, which pose particular uncertainty for our programs given the relatively limited development history of, and our limited prior experience with, gene therapies. Furthermore, the medical community's understanding of the genetic causes of many diseases continues to evolve and further research may change the medical community's views on what therapies and approaches are most effective for addressing certain diseases.

We are refocusing our gene therapy development efforts from IC-100 and IC-200 to earlier stage research programs that we plan to pursue internally. As previously disclosed, we observed inconclusive results from two preclinical toxicology studies for IC-100 and have been considering development options for this product candidate. With our company focusing our efforts on and prioritizing the development of Zimura, we are also considering our development options for IC-200. At this time, we plan to seek a collaborator or licensee for the future development and potential commercialization of these product candidates.

For our miniCEP290 program and other minigene programs, we are pursuing research using a novel approach that is largely untested and presents various scientific and regulatory risks. To date, all the data generated for our miniCEP290 program are in a newborn mouse model for LCA10, and we do not know whether the effect we observed with these minigenes in mice will be replicated in other animals or humans. Furthermore, minigenes result in the expression of a protein that differs from the naturally occurring protein. The protein expressed by the minigene may have physiological effects, including toxic effects, that are not yet known. Because of the novelty of minigenes, the medical community's and regulators' receptiveness to this approach remains unknown. Our research efforts may not fully elucidate all of the physiological risks associated with a particular minigene and the associated expressed protein. For these and other reasons, promising minigene candidates that emerge from our gene therapy research programs may not succeed in later stage preclinical and clinical development.

We have particularly focused on AAV gene therapy, as AAV vectors are relatively specific to retinal cells and their safety profile in humans is relatively well-documented as compared to other delivery vehicles and gene therapy technologies currently in development. However, AAV has a number of drawbacks, including its small packaging capacity: an AAV vector can hold only up to approximately 4,700 base pairs of DNA, whereas the genes that are associated with a number of diseases, such as LCA10, Stargardt disease and Usher 2A, exceed that size. Although AAV is the most commonly used vector in ocular gene therapy today, it may prove to pose safety risks that we are not aware of and other vector forms, such as retroviral or lentiviral and non-viral based vectors, or gene editing approaches, may prove to be safer and more effective.

As we pursue our gene therapy research programs, we expect we will need to continue to grow our own gene therapy scientific and technical capabilities through hiring internally and seeking assistance from outside service providers. We believe that gene therapy is an area of significant investment by biotechnology and pharmaceutical companies and that there may be a scarcity of talent available to us in these areas. If we are not able to expand our gene therapy capabilities, we may not be able to develop in the way we intend or desire any promising product candidates that emerge from our gene therapy research programs.

We have not previously conducted any clinical development involving gene therapies and, if and when we are ready to conduct our first gene therapy clinical trial, we will need to build our internal and external capabilities in designing and executing a gene therapy clinical trial. There are many known and unknown risks involved in translating preclinical development of gene therapies to clinical development, including selecting appropriate endpoints and dosage levels for dosing humans based on preclinical data. Many of the indications for which we are pursuing our gene therapy programs have limited natural history data and limited number of therapies in clinical development, which may make selecting an appropriate endpoint difficult. Furthermore, our gene therapy programs are targeting orphan diseases with relatively small populations, which limits the pool of potential patients for our gene therapy clinical trials. Because gene therapy trials generally require patients who have not previously received any other therapy for the same indication, we will also need to compete for the same group of potential clinical trial patients with our competitors who are also developing therapies for these same indications. If we are unable to initiate and

conduct our gene therapy clinical trials in a manner that satisfies our expectations or regulatory requirements, the value of our gene therapy programs may be diminished.

For a further discussion of the risks associated with the manufacturing of gene therapy products, see the risk factor herein entitled “*The manufacture of gene therapy products is complex with a number of scientific and technical risks, some of which are common to the manufacture of drugs and biologics and others are unique to the manufacture of gene therapies.*”

If serious adverse or unacceptable side effects are identified during the development of our product candidates, we may need to abandon or limit our development of such product candidates. There are a number of known safety risks associated with our product candidates and currently unknown safety issues may arise during development.

If any of our product candidates are associated with serious adverse events or undesirable side effects in preclinical studies or clinical trials or have characteristics that are unexpected, we may need to abandon their development or limit development to certain uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. Many drugs that initially showed promise in clinical or earlier stage testing have later been found to cause side effects that prevented further development. Safety issues may arise due to reasons unrelated to the study drug, such as issues with the injection procedure or the syringes or needles being used.

In our completed clinical trials for Zimura, we have observed only a single adverse event, mild subcapsular cataract, from our OPH2000 trial, assessed to be drug-related by participating investigators. Although not reported as related to Zimura by investigators, we observed an increase in the number of investigator-reported cases of choroidal neovascularization, or CNV, in the Zimura treatment groups in the GATHER1 trial as compared to the sham control groups. Additionally, we learned from our independent masked reading center that the retinal images of one of the patients in the Zimura 4 mg group showed evidence of CNV in the study eye that was not reported by the investigator. For the GATHER2 trial, because we are asking investigators to perform monthly OCT imaging and to submit cases where patients experience a decrease in visual acuity of five or more ETDRS letters between successive visits to the independent reading center for confirmation by multi-modal imaging, in addition to the cases the investigator suspects to be CNV, we may observe a higher rate of CNV cases in the GATHER2 trial, including, potentially in the Zimura 2 mg treatment group as compared to the sham group. We have no unmasked data regarding the safety, tolerability or efficacy of Zimura administered for the treatment of STGD1 or intermediate AMD. We have no human data regarding IC-500.

Our clinical trials for Zimura involve dosing regimens that we have not studied extensively, which may increase the risk that patients in these trials experience adverse events and/or serious adverse events (either ocular, systemic or both) that we have not observed or at rates that we have not observed in prior trials. For example, although we view the rate of CNV incidence in the Zimura treatment groups, as compared to the corresponding sham control groups, as acceptable and within the range observed in other clinical trials of complement inhibitors in development for GA, the FDA, EMA, other regulatory authorities, treating physicians or patients may not agree, concluding that Zimura may increase the risk of patients developing CNV to an unacceptable degree. Moreover, our clinical trials for Zimura involve multiple intravitreal injections over an extended period of time and, as such, may involve risks involved with multiple and chronic intravitreal injections. For these reasons, there may be, among others, an increase in the rates of intraocular infections, or endophthalmitis, intraocular pressure, glaucoma, retinal tears, cataracts, retinal detachment, intraocular inflammation, retinal and/or choroidal circulation compromise, or hospitalizations in patients who receive Zimura. An unforeseen or unexpected safety event, or any safety finding that is inconsistent with our prior experience with Zimura, from any of our clinical trials for Zimura, including from the GATHER2 trial during which we will follow patients and collect safety data over 24 months, may impact our ability to continue to develop Zimura or the long-term viability of Zimura as a potential treatment for GA, intermediate AMD, STGD1 or any other indication for which we may seek to develop Zimura.

As HtrA1 inhibition is a novel treatment approach for treating ocular disease, this treatment approach may present potentially unknown safety risks when tested in clinical trials that could not have been anticipated based on preclinical studies, including the tolerability studies we are conducting. In addition, we intend to

administer IC-500 by intravitreal injection, which poses the same safety risks outlined above with respect to intravitreal injections of Zimura.

In addition, there are several known safety risks specific to gene therapy, including inflammation resulting from a patient's immune response to the administration of viral vectors and the potential for toxicity as a result of chronic exposure to the expressed protein. Managing a host body's immune response to introduced viral vectors has been and remains a challenge for gene therapies. For AAV gene therapy, "vector shedding," or the dispersal of AAV vectors away from the target tissue to other parts of the body, which can trigger a more serious and extensive immune response, is a known safety issue. Although subretinal injection, which is the method often used to administer retinal gene therapies, helps to control vector shedding beyond the eye, subretinal injection is a surgical procedure that requires significant skill and training for the administering surgeon and involves its own risks separate from the gene therapy vectors, including the risk of retinal detachment. The margin for error with subretinal injections is extremely low and there are a limited number of retinal surgeons with experience in performing subretinal injections in the eye. In order to generate useful clinical data for gene therapy clinical trials, one or more retinal surgeons must repeat the same subretinal injection procedure in multiple patients with consistency across patients and surgeons. In the event that we progress into clinical development with a gene therapy product candidate, we may experience delays or other challenges for our gene therapy development programs as a result of safety issues.

In addition to the currently known safety risks, there may be unknown risks to human health from gene therapies. Because gene therapy involves the introduction of concentrated quantities of AAV, as well as the introduction of persistent foreign genetic material into the human body, any safety risks may not manifest until much later, if at all. Gene therapies have only recently been used in the treatment of human diseases and the scientific and medical understandings of safety or other risks to humans continue to evolve. The safety profile of minigenes and their associated proteins in humans remains largely unknown. If gene therapies prove to be unsafe for humans, we likely will need to curtail or eliminate our gene therapy development programs.

We do not have any internal manufacturing capabilities and use third parties to manufacture our product candidates on a contract or purchase order basis. We may encounter manufacturing issues that could cause delays in our development programs or increase costs. We may experience delays in regulatory approval of our product candidates if we or our contract manufacturers do not satisfy applicable regulatory requirements. If any of our product candidates is approved, a manufacturing issue could result in product shortages, which could impair our ability to commercialize our products and generate revenue.

We do not have internal manufacturing facilities and use or plan to use outside contract manufacturers to manufacture Zimura, IC-500 and any other product candidates that we may acquire or in-license. The manufacturing processes for our product candidates are technically complex. Problems with developing, executing or scaling up the manufacturing process, even minor deviations from the established process, could result in product defects or manufacturing failures that result in lot failures, product recalls, product liability claims, insufficient inventory or delays to our programs. We may encounter problems achieving adequate quantities and quality of clinical-grade or commercial-grade materials that meet FDA, EMA or other applicable standards or specifications with consistent and acceptable production yields and costs.

In addition, we have a limited number of personnel hired to supervise our outside contract manufacturers and, as we prepare for potential commercialization of Zimura, we expect we will need to increase our manufacturing personnel and bolster our quality control and quality assurance capabilities. We may encounter problems hiring and retaining scientific, manufacturing and quality assurance and control personnel needed to oversee our contract manufacturers, which could result in delays in our production or difficulties in maintaining compliance with applicable regulatory requirements. As our contract manufacturer scales up manufacturing of any product candidate, we may encounter unexpected issues relating to the manufacturing processes or the quality, purity or stability of the product, and we may be required to refine or alter our manufacturing processes to address these issues, or may need to use an alternative manufacturer. Resolving these issues could result in significant delays and may result in significantly increased costs. If we underestimate the demand for an approved product, given the long lead times required to manufacture or obtain regulatory approvals for our products and/or manufacturing facilities, we could potentially face commercial drug product supply shortages. If we experience significant delays or other obstacles in

producing any approved product at commercial scale, our ability to market and sell any approved products may be adversely affected and our business could suffer.

The manufacturing processes and the facilities of our third-party manufacturers are subject to inspection and approval by the FDA, referred to as a pre-approval inspection, before we can commence the commercial sale of any approved product candidate, and thereafter on an ongoing basis. None of our third-party manufacturers have undergone a pre-approval inspection by the FDA for Zimura or any of our other product candidates. Failure by our third-party manufacturers to pass such inspections and otherwise satisfactorily complete the FDA approval regimen with respect to our product candidates may result in delays in the approval of our applications for marketing approval, as well as regulatory actions such as the issuance of FDA Form 483 notices of observations, warning letters or injunctions or the loss of operating licenses. If any of our third-party manufacturers are found to have delayed, denied, limited or refused a drug inspection, our drug substance or drug product could be deemed adulterated. Based on the severity of the regulatory action, our clinical or commercial supply of drug substance or drug product could be interrupted or limited, which could have a material adverse effect on our business.

Any problems in our manufacturing process or our third-party contract manufacturers' facilities could make us a less attractive collaborator for potential collaborations, including with larger pharmaceutical companies. Problems in our manufacturing process or facilities also could restrict our ability to meet market demand for our products.

For a further discussion of the risks associated with our reliance on third-party manufacturers, including the effects of the COVID-19 pandemic on our third-party manufacturers, see the risk factor herein entitled, *"We contract with third parties for the manufacture of and for providing starting materials for our product candidates for preclinical development activities and clinical trials and expect to continue to do so in the future, including to support potential commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or product candidates of sufficient quality, which could delay, prevent or impair our development or commercialization efforts. The COVID-19 pandemic has affected our contract manufacturers' operations and the manufacture of our product candidates."*

Our experience manufacturing Zimura is limited. As we plan for the potential commercialization of Zimura, we and our third-party manufacturers will need to complete several activities to ensure the continued supply of drug product for ongoing and future clinical trials we conduct for Zimura and to support potential future commercial supply of Zimura. Any delay or failure in completing these activities could cause delays in the development of Zimura or its potential approval or could result in inadequate clinical or commercial product supply.

In order to obtain and maintain regulatory approval for Zimura, our third-party manufacturers will be required to produce Zimura drug substance with consistent quality and to execute fill/finish services on a repeated basis and document their ability to do so. In order for us to successfully commercialize Zimura, if approved, our manufacturers also need to be able to produce quantities at a commercial scale. If our third-party manufacturers are unable to satisfy these requirements, our business would be materially and adversely affected. To date, we have not yet scaled up the manufacturing process for Zimura beyond the scale used for developmental clinical batches, nor have we validated the manufacturing process.

In early 2017, we completed the small scale manufacture of multiple batches of Zimura drug substance that we are using to support clinical drug supply for the GATHER2 trial and the expanded STAR trial. Although we believe we have adequate Zimura drug substance for the GATHER2 trial and the expanded STAR trial, this supply may not be sufficient for our needs over the duration of the trials or for any additional trials we may conduct, including our planned clinical trial for Zimura in intermediate AMD. We are working with our historical contract manufacturer for Zimura drug substance, Agilent Technologies, Inc., or Agilent, to scale up and potentially validate the manufacturing process for Zimura drug substance. Agilent may not be successful in producing Zimura drug substance at a larger scale. In parallel, we are working with a new contract manufacturer with the goal of assessing whether this manufacturer can produce Zimura drug substance at an adequate scale for potential commercial use. We have experienced issues with technology transfer of the existing manufacturing process to this manufacturer, which has resulted in delays to our timelines with this manufacturer. Subject to successful completion of scale up and validation activities, we currently plan to use both Agilent and the new manufacturer for the future supply of Zimura

drug substance. Validation requires that we demonstrate that the drug substance produced through the scaled up process is analytically comparable to the drug substance we are currently using. If we are unable to demonstrate that the Zimura drug substance produced through the scaled up process is analytically comparable to the Zimura drug substance we are currently using, including as a result of not having the appropriate assays to demonstrate analytical comparability, our timelines to complete the development of and seek regulatory approval for Zimura would be impacted.

In 2020, we engaged a contract manufacturer to provide us with additional supply of finished Zimura drug product to support our needs for the GATHER2 trial and the expanded STAR trial. We expect that this contract manufacturer will be able to supply sufficient finished Zimura drug product for these two clinical trials. However, we may face issues with releasing batches of finished Zimura drug product produced by this contract manufacturer, or even if these batches can be successfully released, we may not have sufficient supply for our needs over the duration of these trials. In addition, we are working with our historical fill/finish manufacturer, Ajinomoto Bio-Pharma Services, or Ajinomoto, on fill/finish of Zimura drug product with a new vial, which we believe will allow us to support a more efficient and robust fill/finish operation at a commercial scale. We believe Ajinomoto has the capacity to supply us with finished Zimura drug product with the new vial for our expected commercial supply needs. If Ajinomoto is unable to provide us and/or a potential collaborator with Zimura drug product for potential commercial use, we will need to use alternative suppliers, which may increase our costs and delay our timelines.

We order the PEG starting material used to make Zimura drug substance from a sole source third-party manufacturer outside the United States. We currently procure the supply on a purchase order basis and are in discussions regarding a long-term supply agreement with this manufacturer for the PEG starting material. However, we may not be able to agree to terms or may need to agree to unfavorable terms in order to secure adequate supply. We believe this supplier will have the capacity to supply the PEG at the scale that we expect we will need for commercial manufacturing. If this supplier is unable to supply us the PEG in line with our expectations, we believe there are a limited number of alternative suppliers for this critical raw material, and if we need to use those suppliers, it could increase our costs and delay our manufacturing plans for Zimura.

Each of these activities is costly, time-consuming and uncertain in outcome. We may not be able to successfully scale up our manufacturing process for Zimura, demonstrate analytical comparability of the Zimura drug substance manufactured through the scaled up process with the previously manufactured Zimura drug substance, or establish the long-term stability of the Zimura drug product stored in the new vial container. The new manufacturers we have engaged or may engage in the future have not had previous experience with Zimura and there may be additional issues with technology transfer. We may need to perform additional work beyond what we currently plan to establish manufacturing and analytical capabilities sufficient to obtain regulatory approval of our manufacturing process for Zimura and to support potential commercial operations. In addition, we may not be able to secure adequate supply of Zimura drug substance, including the PEG starting material used to make Zimura drug substance, and Zimura drug product for our future needs, including to support potential commercial launch, and we may need to secure alternative contract manufacturers or suppliers sooner than we currently expect. If any of the foregoing events occur, it could result in delays or increased costs to support our future development and commercialization of Zimura, even if we successfully complete any required clinical trials for Zimura and obtain sufficient and favorable safety and efficacy data.

Some of the standards of the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use, which establishes basic guidelines and standards for drug development in the United States, the European Union, Japan and certain other countries, do not apply to oligonucleotides, including aptamers. As a result, there are limited established generally accepted manufacturing or quality standards for the production of oligonucleotides such as Zimura. The lack of uniform manufacturing and quality standards among regulatory agencies may delay regulatory approval of Zimura. Furthermore, there are a limited number of contract manufacturers with experience manufacturing oligonucleotides, which may limit our ability to find and use alternative manufacturers.

We are continuing to establish manufacturing capabilities for IC-500. We may need to conduct additional process development and formulation development activities.

Before we can commence IND-enabling studies for IC-500, we need to conduct process development and formulation development to determine whether we can identify a viable manufacturing process for and

formulate IC-500 for intravitreal administration that is safe to advance into preclinical studies and, depending on the outcome of such studies, into clinical trials. For example, as part of formulation development, we need to determine which inactive formulation components should be used in the preparation of IC-500, and derive a preparation that includes an adequate amount of drug substance with the necessary inactive ingredients to achieve the desired safety and efficacy profile for intravitreal injection.

We are working with a CDMO to conduct process development, scale up and cGMP manufacturing of the drug substance for IC-500 for preclinical toxicology studies and early-stage clinical trials. We are working with a number of other CDMOs to conduct formulation development, formulation optimization activities, and manufacturing scale-up for the drug product for IC-500. Our contract manufacturers have developed a manufacturing process for IC-500 drug substance and a formulation of this produced drug substance. However, we have only recently begun to test this formulation in preclinical animal studies; the results of these studies may require us to refine or change our manufacturing process or conduct additional formulation development activities. We have engaged a contract manufacturer to manufacture finished drug product for clinical supply. Manufacturing, including process development, formulation development and drug product manufacturing, can be costly and time-consuming and our anticipated timelines for the development of IC-500 may be delayed. If we are unable to successfully manufacture and formulate IC-500 in line with our expectations, we may switch to a backup HtrA1 inhibitor or cease developing our HtrA1 inhibitor program altogether.

The manufacture of gene therapy products is complex with a number of scientific and technical risks, some of which are common to the manufacture of drugs and biologics and others of which are unique to the manufacture of gene therapies.

Gene therapy drug products are complex and difficult to manufacture. We believe that the high demand for clinical gene therapy material and a scarcity of potential contract manufacturers may cause long lead times for establishing manufacturing capabilities for gene therapy drug development activities. Even after a manufacturer is engaged, any problems that arise during manufacturing, including during process development and cGMP manufacturing, may result in unanticipated delays to our timelines, including delays attributable to securing additional manufacturing time slots. In 2020, we experienced several delays to our cGMP manufacturing activities for IC-100 and IC-200 because of a number of manufacturing issues at our CDMO. There may also be long lead times to manufacture or procure starting materials such as cell banks or plasmids. In particular, plasmids and other starting materials for gene therapy manufacture are usually sole sourced, as there are a limited number of qualified suppliers. The progress of our gene therapy programs is highly dependent on these suppliers providing us or our contract manufacturers with the necessary starting materials that meet our requirements in a timely manner. As previously disclosed, due to an issue with one of the starting materials used for our manufacturing process for IC-100, we had to delay our cGMP manufacturing run at our CDMO and reschedule the run for a later date based on the CDMO's availability. A failure to procure or a shortage of necessary starting materials likely would delay our manufacturing and development timelines.

A number of factors common to the manufacturing of biologics and drugs could also cause production or quality issues for gene therapies, including raw material or starting material variability in terms of quality, consistency in cell growth, productivity or cell line stability issues, product and process impurities, material shortages of any kind, shipping, distribution, storage and supply chain failures, cell culture contamination, equipment malfunctions, operator errors, facility contamination, labor problems, natural disasters, disruption in utility services, terrorist activities, epidemics and pandemics, or acts of god that are beyond our or our contract manufacturer's control. It is often the case that early stage process development is conducted with materials that are not manufactured using cGMP starting materials, techniques or processes and which are not subject to the same level of analysis that would be required for clinical grade material. We may encounter difficulties in translating the manufacturing processes used to produce research grade materials to cGMP compliant processes, and any changes in the manufacturing process may affect the safety and efficacy profile of our product candidates. Although we were successful in releasing cGMP batches of IC-100 and IC-200 produced by our CDMO, we have not yet conducted any manufacturing activities, including process development, for any of our minigene or other gene therapy research programs.

An important part of manufacturing drug products is performing analytical testing. Analytical testing of gene therapies involves tests that are more complex in scope and take a longer time to develop and to

conduct as compared to those used for traditional drugs. We, our contract manufacturers and our contract research organizations need to expend considerable time and resources to develop assays and other analytical tests for our gene therapy product candidates, including assays to assess the potency of our gene therapy product candidates. Some assays need to be outsourced to specialized testing laboratories. Even when assays are developed, they need to be further tested, qualified and validated, which may take substantial time and resources. Because of the lagging nature of analytical testing, we may proceed with additional manufacturing and other development activities without having first fully characterized or released our manufactured materials. If the results of the testing fail to meet our expectations or applicable requirements, we may need to delay or repeat certain manufacturing and development activities.

We face substantial competition, which may result in others developing or commercializing products before or more successfully than we do.

The development and commercialization of new drug products is highly competitive. We face competition with respect to our product candidates and other programs from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies, as well as generic and biosimilar companies, worldwide. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization. Some of these competitive products and therapies are based on scientific approaches that are the same as or similar to our approach, and others are based on entirely different approaches. We also will face similar competition with respect to any product candidates that we may seek to develop or commercialize in the future.

Our business strategy is focused on developing transformative therapies for retinal diseases, including GA secondary to age-related macular degeneration, intermediate AMD and a number of orphan inherited retinal diseases. There are multiple companies pursuing the development of therapeutics targeting the complement pathway for age-related retinal diseases. Some of them have better name recognition, more resources and a longer history of developing therapies than we do. Competition in this field is intense and especially for many inherited retinal diseases, there is a limited number of potential patients. If any of our competitors obtains FDA, EMA or other regulatory approval for their products more rapidly than we may obtain approval for ours, our competitors could establish a strong market position before we are able to enter the relevant market, which may significantly limit the commercial opportunity for our product candidates.

Our commercial opportunity could also be reduced or eliminated if one or more of our competitors develop and commercialize products that are more effective, safer, have fewer or less severe side effects, are more convenient to use or are less expensive than our product candidates. For example, the method of administration of Zimura, intravitreal injection, is commonly used to administer ophthalmic drugs for the treatment of severe diseases and is generally accepted by patients facing the prospect of severe visual loss or blindness. A therapy that offers a less invasive or less frequent method of administration, however, might have a competitive advantage over one administered by monthly intravitreal injections, depending on the relative safety of the other method of administration. Furthermore, our ability to compete may be affected in many cases by insurers or other third-party payors, particularly Medicare, seeking to encourage the use of less expensive or more convenient products.

Many of our competitors have significantly greater financial and human resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and enrolling patients for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our development programs. Our timelines may be delayed to the extent clinical trials conducted by our competitors are enrolling patients that would otherwise be eligible to participate in our trials at the same time we are seeking to enroll these patients.

Based on publicly available information, we are aware of the following research and development programs that may be competitive with programs we are pursuing. Other competitive programs may exist of which we are not aware.

Competitive considerations for GA or dry AMD:

- We are aware that LumiThera, Inc. has a medical device using its LT-300 light delivery system, which is approved in the European Union for the treatment of dry AMD. In addition, there are a number of products in preclinical and clinical development by third parties to treat GA or dry AMD. In general, these product candidates can be categorized based on their proposed mechanisms of action. The mechanisms of action for these product candidates include complement system and inflammation suppression, visual cycle modulators, antioxidants and neuroprotectants, cell and gene therapies and vascular perfusion enhancers. We are aware that Alexion Pharmaceuticals, Inc., Annexon Inc., Apellis Pharmaceuticals, Inc., or Apellis, Applied Genetic Technologies Corporation, or AGTC, Biogen Inc., Gemini Therapeutics, Inc., Gyroscope Therapeutics, IONIS Pharmaceuticals, Inc. (in collaboration with Roche AG), Janssen Pharmaceuticals Inc. (which acquired its program through the acquisition of Hemera Biosciences, LLC), MorphoSys AG, NGM Biopharmaceuticals Inc. and Novartis AG each have complement inhibitors in development for GA or dry AMD, including, in the cases of Gemini Therapeutics, Gyroscope Therapeutics and Janssen Pharmaceuticals, complement inhibitor gene therapies and AGTC and Gemini Therapeutics each has a research program on complement factor H gene therapy. We believe that the most advanced of these programs is Apellis's pegylated, synthetic peptide targeting complement protein C3, for which Apellis announced top-line data from two Phase 3 clinical trials in September 2021 and Apellis stated it would file an application for marketing approval with the FDA during the first half of 2022. Apellis could obtain marketing approval for its product candidate in advance of when we might reasonably expect to obtain marketing approval for Zimura in GA or IC-500 in GA, if at all. Moreover, we are aware that several other companies, including Allergan Inc., Allegro Ophthalmics, LLC, Alkeus Pharmaceuticals Inc., Astellas Pharma Inc., Boehringer Ingelheim, Lineage Cell Therapeutics, Inc., Regenerative Patch Technologies, Roche AG and Stealth BioTherapeutics Corp., are pursuing development programs for the treatment GA or dry AMD using different mechanisms of action outside of the complement system, including Genentech, Inc. (an affiliate of Roche AG) and Gemini Therapeutics, which are pursuing HtrA1 inhibition as a mechanism of action. We believe that the most advanced HtrA1 inhibitor program in development is Genentech's monoclonal antibody HtrA1 inhibitor, which is currently being studied in a Phase 2 clinical trial and whose results are expected to become available in 2022.

Competitive considerations for Stargardt disease:

- There are a number of products in preclinical research and clinical development by third parties to treat Stargardt disease. We are aware that AGTC, Alkeus Pharmaceuticals, Inc., Beam Therapeutics Inc., Generation Bio Co., Kubota Vision Inc. (formerly Acucela), Lin BioScience, Inc., Nightstar Therapeutics plc (prior to its acquisition by Biogen), or Nightstar, ProQR Therapeutics N.V., or ProQR, and Spark Therapeutics each have research or development programs in Stargardt disease. Three of these programs, Alkeus, Kubota and Lin BioScience, are exploring the use of oral therapeutics, while AGTC, Nightstar and Spark are each using a gene therapy approach, Beam is using a base editing approach, and ProQR is using an RNA based approach. Kubota's product candidate, to which the FDA and the EMA granted orphan drug designation in August 2020, is in Phase 3 development while Alkeus's product candidate is in Phase 2 development. In addition, several academic organizations have early stage programs in Stargardt disease.

Competitive considerations for RHO-adRP:

- We are aware that ProQR is developing an RNA-based therapeutic for RHO-adRP, for which it is currently conducting a Phase 1/2 clinical trial. Ocugen, Inc. is developing a gene therapy for RHO-adRP, for which the FDA granted orphan drug designation in July 2020. In addition, prior to its acquisition by Biogen, Nightstar had a preclinical AAV gene therapy program in RHO-adRP. 4D Molecular Therapeutics is developing an intravitreal gene therapy for RHO-adRP. Editas Medicine, Inc. is exploring a potential gene editing program in this disease. We are also aware that multiple academic institutions have early stage gene therapy development programs in RHO-adRP.

Competitive considerations for BEST1-related IRDs:

- We are aware that, prior to its acquisition by Biogen, Nightstar had a preclinical AAV gene therapy program for one or more BEST1-related IRDs.

Competitive considerations for LCA10:

- We are aware that Editas Medicine, Inc. has a gene editing program for LCA10, for which a Phase 1/2 clinical trial is ongoing, ProQR is developing an RNA-based therapeutic for LCA10 that is currently in Phase 2/3 development, Generation Bio Co. has a preclinical program that utilizes ceDNA technology to target LCA10 and Oxford Biomedica plc is developing a lentiviral gene therapy program for LCA10 that is in preclinical development. In addition, several academic institutions have preclinical programs in LCA10.

Competitive considerations for USH2A-related IRDs:

- There are a number of products in preclinical research and clinical development by third parties to treat *USH2A*-related IRDs. We are aware that ProQR is pursuing two RNA based approaches for different mutations causing Usher 2A, one of which is currently in Phase 1/2 clinical development and the other of which is in preclinical development. We are also aware that Editas Medicine, Inc. and Odylia Therapeutics are exploring potential programs in *USH2A*-related IRDs.

If we are unable to establish sales, marketing and distribution capabilities or enter into sales, marketing and distribution agreements with third parties, we may not be successful in commercializing Zimura or any of our other product candidates, if and when any such product candidate is approved.

As a company, we have no experience in the sale, marketing or distribution of pharmaceutical products. We have only recently hired a chief commercial officer and are in the process of hiring additional commercialization personnel and planning our commercialization strategy for Zimura, including potentially setting up a sales, marketing and distribution infrastructure. To achieve commercial success for any approved product, we must either develop a sales, marketing and distribution organization or outsource those functions to third parties. We expect that our commercial strategy for any of our product candidates, including whether to retain commercial rights and market and sell the product candidate ourselves or to utilize collaboration, distribution or other marketing arrangements with third parties, would be determined based on a variety of factors, including the size and nature of the patient population, the disease area, the particular indications for which the product is approved, the territories in which the product may be marketed and the commercial potential for such product candidate. In addition, our commercial strategy would vary depending on whether the disease is typically treated by general ophthalmology practitioners or specialists, such as retinal specialists, and the likely degree of acceptance of our product candidate by the relevant physicians in various markets.

There are risks involved with establishing our own sales, marketing and distribution capabilities. 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 and distribution 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 products on our own include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to adequate numbers of physicians who may prescribe our products; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

There are also risks involved with having third parties perform sales, marketing and distribution services on our behalf. If we enter into arrangements with third parties to perform sales, marketing and distribution services, our product revenues and our profitability, if any, are likely to be lower than if we were to market, sell and distribute ourselves any products that we develop. In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute 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

products effectively. If we do not or are unable to establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we would not be successful in commercializing our product candidates, if approved.

Even if any of our product candidates receives marketing approval, such product candidate may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success and the market opportunity for any of our product candidates may be smaller than we estimate.

The degree of market acceptance of any product candidate that we are developing or we may develop, if approved for commercial sale, will depend on a number of factors, including:

- efficacy and potential advantages compared to alternative treatments, including the existing standard of care;
- any restrictions in the label on the use of our products in combination with other medications or with certain devices;
- any restrictions in the label on the use of our products to or by a subgroup of patients, including, for example, for Zimura, if approved, restrictions on use of our product to patients with GA secondary to dry or non-neovascular AMD (as opposed to GA secondary to any or all forms of AMD or other stages of AMD, such as neovascular AMD) or to patients with specific GA lesion characteristics, such as non-foveal GA. Our GATHER1 and GATHER2 trials are limited to patients with non-foveal GA and as a result, our label for Zimura, if approved, may have a restriction limiting its use to those patients;
- for treatment regimens calling for multiple intravitreal injections on the same day, restrictions in the label imposing a waiting period in between intravitreal injections;
- our and any commercialization partner's ability to offer our products at competitive prices;
- availability and timeliness of governmental and third-party payor coverage and adequate reimbursement;
- increasing reimbursement pressures on treating physicians due to the formation of accountable care organizations and the shift away from traditional fee-for-service reimbursement models to reimbursement based on quality of care and patient outcomes;
- willingness of the target patient population to try new therapies and of physicians to prescribe these therapies, particularly in light of the existing available standard of care or to the extent our product candidates require invasive procedures for administration;
- prevalence and severity of any side effects or perceived safety concerns, such as CNV; and
- whether competing products or other alternatives are more convenient or easier to administer, including alternatives that offer a less frequent dosing regimen than monthly intravitreal injections, in the case of Zimura, come to market. For example, Apellis is testing its complement inhibitor product candidate for GA with both monthly and every other month dosing regimens, and may obtain a label with an every other month dosing regimen, while we expect that any label we may obtain for Zimura in GA will require monthly administrations. If so, physicians and patients may find Apellis's dosing regimen more acceptable than ours.

Our development program for Zimura in GA uses anatomical primary endpoints, the mean rate of change in GA growth over 12 months, in the case of GATHER1, and the mean rate of growth (slope) estimated based on GA area over 12 months, in the case of GATHER2. We believe that this efficacy assessment is most likely to demonstrate clinical relevance for an investigational product across a heterogeneous GA patient population and other potential assessments, such as comparisons of visual acuity, are not as clinically meaningful for patients with GA. However, to date there is no direct functional corollary to the anatomical measures that we are using as our primary endpoints for GATHER1 and GATHER2. Although we evaluated visual acuity as a secondary endpoint in the GATHER1 trial, the trial was not designed to reliably assess differences in mean changes in visual acuity with statistical significance. Patients, physicians and payors may not recognize the value of, and we may not be able to obtain marketing

or reimbursement approval for, Zimura without demonstrating a functional benefit to vision. To do so, we may need to conduct additional clinical trials or sub-studies, which may not ultimately demonstrate a functional benefit to vision.

In addition, the potential market opportunity for any product candidate is difficult to estimate precisely. Our estimates of the potential market opportunity for our product candidates include several key assumptions based on our expectations of the safety and effectiveness of the relevant product candidate, the expected patient population for our product candidates, our industry knowledge, the competitive landscape for the indications for which we are developing our product candidates, market response to anti-VEGF agents currently approved for treatment of wet AMD, third-party research reports and other surveys. The potential market opportunity for our product candidates may also differ across geographies. While we believe that our internal assumptions are reasonable, any of these assumptions could prove to be inaccurate, and the actual market for such product candidates could be smaller than our estimates of our potential market opportunity.

There is a variety of factors that could contribute to the actual number of patients who receive an approved therapy being less than our estimates of the potential addressable market. These estimates may prove to be incorrect and new studies may reduce the estimated incidence or prevalence of these diseases. The number of patients in the United States, the European Union and elsewhere may turn out to be lower than expected, patients may not be amenable to treatment with our products or patients may become increasingly difficult to identify and access, all of which would adversely affect our business, financial condition, results of operations and prospects. Further, the severity of the progression of a disease up to the time of treatment, especially in certain degenerative conditions such as GA, likely will diminish the therapeutic benefit conferred by a new drug product due to irreversible cell death. For example, certain GA patients may have experienced the loss of certain portions of retinal tissue that disproportionately affected their functional vision, and these patients may not value a treatment that can only slow the growth of additional GA lesions without providing a treatment to their loss of functional vision. On the other hand, patients with intermediate AMD are often asymptomatic as to loss of vision; therefore they may not seek or value having a treatment for their condition, especially a treatment involving monthly injections, which is the current dosing regimen for Zimura. If the number of patients that may benefit from the treatments we are seeking to develop is lower than we expect, our business, financial condition, results of operations and prospects may be adversely affected.

Even if we are able to commercialize any of the product candidates that we may develop, the product may become subject to unfavorable pricing regulations, pricing dynamics, third-party reimbursement practices or healthcare reform initiatives, which would harm our business.

The regulations that govern marketing approvals, pricing and reimbursement for new drug products vary widely from country to country. Health care reform, including increasing scrutiny of drug prices, is an issue of intense political focus, particularly in the United States. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals or in ways that could alter the mechanism by which pharmaceutical prices are negotiated or otherwise determined. Many countries outside the United States require approval of the sale price of a drug before it can be marketed, and to apply for and obtain such an approval in certain countries, we or a commercialization partner may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control or negotiation even after initial approval is granted. In particular for Zimura in GA, we may need to demonstrate a relative benefit in functional vision in order to obtain reimbursement approval, although our clinical trials, which use an anatomic endpoint as the primary efficacy endpoint, are not designed to demonstrate a functional benefit with statistical significance. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay our or any commercialization partner's commercial launch of the product, possibly for lengthy time periods, which would negatively impact the revenues we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain marketing approval and are widely accepted and prescribed or used by physicians.

In addition, even in countries where pharmaceuticals are not subject to strict pricing regulations through a governmental review and approval process, we may nonetheless face an unfavorable pricing environment as a result of political pressure or market dynamics. The perceived high cost for pharmaceutical products to treat orphan diseases, where manufacturers seek to recoup development costs and earn a profit for a therapy intended to treat a relatively small patient population, may attract increased political and public scrutiny, as seen recently with a number of gene therapies that entered the market. Moreover, if we obtain marketing approval for a product candidate, such as Zimura, in more than one indication, including, for example in an orphan indication such as STGD1 and a non-orphan indication such as GA secondary to AMD, such a product candidate likely would only be sold at one price in any given country, regardless of the indications for which it is prescribed. This dynamic may result in our charging a price that does not generate profits in each indication for which the product is approved.

Our ability and the ability of any commercialization partner to commercialize a product candidate successfully also will depend in part on the extent to which reimbursement for these products and related treatments will be available from government health authorities, private health insurers and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A major trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and third-party payors, particularly Medicare, have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications and encouraging the substitution of lower cost or generic products. Pricing pressures recently experienced by the pharmaceutical industry may be further exacerbated by legislative and policy changes under consideration by the Biden Administration, the U.S. Congress and many states.

For example, the previous Trump Administration, through the Center for Medicare & Medicaid Service, or CMS, announced in late 2018 an advance notice of proposed rulemaking describing a potential mandatory reference pricing model for Medicare Part B drugs under which the prices paid for these drugs will be adjusted in relation to an international pricing index that includes prevailing prices from other countries with strict price controls. The reference pricing model has found support from some members of the U.S. Congress. In September 2020, the Trump Administration issued an executive order directing the Secretary of the Department of Health and Human Services, or HHS, to propose rulemaking that would limit the prices paid by Medicare for certain drugs and biologics to the “most favored nation” price. If this kind of rule were to be adopted, especially for AMD drugs where a large portion of the patient population is over the age of 65 and is therefore covered by Medicare, there could be significant downward pressure on prices charged, not only for patients covered by Medicare, but also for patients covered by private insurers who may follow the government’s lead on price.

On July 9, 2021, President Biden signed Executive Order 14063, which focuses on, among other things, the price of pharmaceuticals. To address these costs, the executive order directs HHS to create a plan within 45 days to combat “excessive pricing of prescription drugs and enhance domestic pharmaceutical supply chains, to reduce the prices paid by the federal government for such drugs, and to address the recurrent problem of price gouging.” More recently, on August 21, 2021, CMS issued a new proposed rule similar to the previous administration’s “Most Favored Nation” drug pricing initiative under which Medicare Part B reimbursement for certain drugs would be based on lower prices in other countries. The proposed rule is meant to address certain legal issues by codifying the earlier interim rule, which had been the subject of substantial litigation. With issuance of the proposed rule, CMS stated that it will carefully consider the comments received on the November 2020 interim final rule as it explores all options to incorporate value into payments for Medicare Part B drugs and improve beneficiaries’ access to evidence-based care.

Reimbursement may affect the demand for, or the price of, any product candidate for which we obtain marketing approval. Obtaining and maintaining adequate reimbursement for our products may be particularly difficult because of the higher prices often associated with drugs administered under the supervision of a physician. We or any commercialization partner may be required to conduct expensive pharmacoeconomic studies to justify coverage and reimbursement or the level of reimbursement relative to other therapies that may be on the market. If coverage and adequate reimbursement are not available or reimbursement is available only at limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or similar regulatory authorities outside the United States. Eligibility for reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution costs. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs, and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States, which many members of the U.S. Congress expressed an interest in pursuing. In September 2020, HHS issued a rule permitting limited importation of drugs from Canada. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our and any commercialization partner's inability to promptly obtain coverage and profitable payment rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our financial condition, or our ability to raise capital needed to commercialize products.

Ethical, legal and social issues related to genetic testing may reduce demand for any gene therapy product candidates we develop and for which we seek marketing approval.

We anticipate that prior to receiving certain gene therapies, including as part of a clinical trial, patients would be required to undergo genetic testing. Genetic testing has raised concerns regarding the appropriate utilization and the confidentiality of information provided by genetic testing. The ownership of and the lawfulness of using genetic data is an area of the law that is unclear and varies across jurisdictions. Genetic tests for assessing a person's likelihood of developing a chronic disease have focused public attention on the need to protect the privacy of genetic information. For example, concerns have been raised that insurance carriers and employers may use these tests to discriminate on the basis of genetic information, resulting in barriers to the acceptance of genetic tests by consumers. This dynamic could lead to governmental authorities restricting genetic testing or calling for limits on or regulating the use of genetic testing, particularly for diseases for which there is no known cure, as well as the use of genetic data. Any of these scenarios could decrease the pool of patients willing to participate in a clinical trial for a gene therapy and the demand for a gene therapy once it is approved.

Product liability lawsuits against us or any future commercialization partner could divert resources, cause us to incur substantial liabilities and limit commercialization of any products that we may develop or in-license.

We face an inherent risk of product liability exposure related to the testing of any product candidate that we develop in human clinical trials, and we and any future commercialization partner will face an even greater risk if we commercially sell any products that we develop or in-license. If we become subject to or otherwise cannot successfully defend ourselves against claims that our product candidates or our products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop or in-license;
- withdrawal of clinical trial participants;
- injury to our reputation and significant negative media attention;
- significant costs to defend the related litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue;
- reduced time and attention of our management to pursue our business strategy; and
- the inability to commercialize any products that we may develop or in-license.

We currently hold \$10.0 million in product liability insurance coverage in the aggregate, with a per incident limit of \$10.0 million, which may not be adequate to cover all liabilities that we may incur. We will need to increase our insurance coverage when and if we begin commercializing an approved product. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise, including coverage for any local jurisdictions where we conduct clinical trials. In addition, if a commercialization or collaboration partner were to become subject to product liability claims or were unable to successfully defend themselves against such claims, any such commercialization or collaboration partners could be more likely to terminate such relationship with us and therefore substantially limit the commercial potential of our products.

Risks Related to Our Dependence on Third Parties

We contract with third parties for the manufacture of and for providing starting materials for our product candidates for preclinical development activities and clinical trials and expect to continue to do so in the future, including to support potential commercialization of Zimura. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or product candidates of sufficient quality, which could delay, prevent or impair our development or commercialization efforts. The COVID-19 pandemic has affected our contract manufacturers' operations and the manufacture of our product candidates.

We do not currently own or operate manufacturing facilities for the production of clinical or commercial quantities of any of our product candidates and have a limited number of personnel hired to supervise outside contract manufacturers. We currently rely upon and expect to continue to rely upon third-party contract manufacturers to manufacture preclinical and clinical supplies of product candidates we are developing or may develop and commercial supplies of products if and when approved for marketing by applicable regulatory authorities. Furthermore, we and our contract manufacturers currently rely upon, and for the foreseeable future expect to continue to rely upon, sole-source suppliers of certain raw materials, plasmids and other specialized components of production used in the manufacture and fill/finish of our product candidates.

We have historically relied on, and purchased on a purchase order basis from, a single third-party manufacturer, Agilent, to provide Zimura drug substance. We are also working with a new manufacturer to conduct scale up and validation activities for Zimura drug substance. However, we do not currently have any contractual commitments with Agilent or the new manufacturer for the long-term clinical or commercial supply of Zimura drug substance. We expect to rely on both manufacturers and potentially other manufacturers for long-term supply of Zimura drug substance. We have also historically relied on a single third-party manufacturer, Ajinomoto, for Zimura drug product. We are working with a second fill/finish manufacturer for additional supply of Zimura drug product for our expected needs for the GATHER2 and STAR trials. We plan to rely on Ajinomoto for long-term supply of Zimura drug product using the new vial we have selected. However, we may ultimately need to rely on other manufacturers for long-term supply of Zimura drug product. We purchase the PEG starting material on a purchase order basis from a single third-party supplier. We are continuing discussions with this supplier for a long-term supply agreement for the PEG starting material. For these and any other manufacturers with which we do not have any contractual commitments for supply, the pricing and other terms for supply may vary, even substantially, over time and could adversely affect our financial results and operations.

For IC-500, we work with a CDMO to conduct process development, scale-up and cGMP manufacture of the drug substance for preclinical toxicology studies and early-stage clinical trials and a number of different CDMOs to conduct cGMP scale-up and manufacture of the IC-500 drug product for early-stage clinical trials.

Our current and anticipated future dependence upon others for the manufacture of the product candidates that we are developing or may develop may adversely affect our business plan and future growth. For example, any production constraints, performance failure or differing priorities on the part of our existing or future manufacturers could delay preclinical or clinical development or marketing approval of our product candidates. Our dependence on third party manufacturers may limit our ability to commercialize on a timely and competitive basis any products that receive marketing approval. We may not have adequate or timely visibility over issues at our third-party manufacturers, and may not become aware of any such issues until the effect on our programs, if any, has already materialized.

Over the past few years, Agilent has been undergoing rapid expansion, including ramping up for production for existing clients, bringing on additional clients, opening new facilities, installing and validating new equipment, and hiring and training new personnel. Agilent previously informed us that as a result of competing demands from other customers, its ability to support our future manufacturing activities for Zimura was limited. As a result, we have engaged a new contract manufacturer for supply of Zimura drug substance, whom we had planned to be our primary manufacturer for Zimura drug substance. We encountered issues with technology transfer of the Zimura manufacturing process to this new manufacturer, which delayed our timelines with this new manufacturer. We plan to continue to rely on Agilent for Zimura drug substance as we prepare for potential commercialization. Agilent has recently indicated it may have additional capacity to manufacture Zimura drug substance and we are continuing discussions with Agilent. In addition, expansion experienced by other manufacturers and suppliers that we use, including any issues that they may experience while expanding, could negatively impact the timing, costs, progress, quality and outcome of our planned manufacturing activities with those manufacturers and delay or hinder our development plans.

If any of our third-party manufacturers, fill/finish providers or sole-source suppliers fail to fulfill our contracts or purchase orders, or if any of these manufacturers or suppliers should become unavailable to us for any reason, including as a result of capacity constraints, differing priorities, regulatory compliance issues, financial difficulties or insolvency, we believe that there are a limited number of potential replacement manufacturers or sole source suppliers, and we likely would incur added costs and delays in identifying or qualifying such replacements. We may be unable to establish agreements with such replacement manufacturers, fill/finish providers or sole-source suppliers or to do so on acceptable terms.

As a result of the COVID-19 pandemic, our third-party contract manufacturers and many sole-source suppliers have limited their operations by reducing the number of staff on site and instituting restrictions on visitors. These changes have affected how we work with our manufacturers and have resulted in minor delays to the progress of our manufacturing activities. For example, we were unable to perform person-in-plant (PIP) observations on a number of critical manufacturing activities at our CDMO for IC-200 and IC-100, which caused minor delays to our manufacturing timelines for both product candidates. Additionally, shortages and governmental restrictions arising from the COVID-19 pandemic have disrupted and may continue to disrupt the ability of our contract manufacturers to procure items, such raw materials, that are essential for the manufacture of our product candidates. For example, in 2020, the COVID-19 pandemic and governmental measures in response caused a delay to the process development activities at our drug substance manufacturer for IC-500 as a result of difficulty in procuring one of the critical starting materials used in the manufacture of IC-500 from China. Over the past year, there have been increasing disruptions in the global supply chain for various materials, due to the effects of the COVID-19 pandemic and other reasons, and these disruptions may ultimately affect our operations. We recently learned that one of our Zimura drug substance manufacturers was experiencing issues with procuring a critical starting material common to many manufacturing processes, which occurred due to recent supply chain interruptions. This issue has resulted in a delay to our manufacturing timelines with this contract manufacturer and we are continuing to monitor the situation.

In addition, we and our third party manufacturers source some of the raw and starting materials used in the manufacture of our product candidates from outside the United States. We source the PEG starting material from a supplier outside the United States. Our supplier relationships could be interrupted due to international supply disruptions, including those caused by geopolitical and other issues. For example, trade disputes, trade negotiations or the imposition of tariffs between the United States and its trading partners could cause delays or disruptions in our supply of starting materials for our product candidates.

Reliance on third-party manufacturers entails additional risks, including:

- our product candidates may compete with other product candidates and products for access to a limited number of suitable manufacturing facilities that operate under cGMP conditions;
- reliance on the third party for regulatory compliance, quality control and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how, or the proprietary information of third parties that we are responsible for protecting; and

- the possible termination or non-renewal of the agreement by the third party at a time that is costly or inconvenient for us.

Third-party manufacturers may not be able to comply with cGMP regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products and harm our business and results of operations.

We rely upon third parties in conducting our preclinical development activities and clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such activities. The COVID-19 pandemic has affected operations at our academic collaborators and delayed some of our sponsored research activities.

We are relying upon and expect in the future to rely upon third parties, such as contract research organizations, or CROs, clinical data management organizations, biostatisticians, medical institutions (including reading centers) and clinical investigators, in conducting our preclinical testing, analytical testing and clinical trials for our product candidates. Although we are planning to advance our minigene research programs internally after transitioning the preclinical research activities for these programs from UMMS to us, we expect to rely upon certain UMMS facilities for various services, including maintenance and care of research animals and production of viral vectors. These third parties may also have relationships with other entities, some of which may be our competitors. We or these third parties may terminate their engagements with us at any time for a variety of reasons, including a failure to perform by the third parties. If we need to enter into alternative arrangements, our product development activities could potentially be delayed and could potentially be very costly.

The COVID-19 pandemic has caused our university collaborators to limit the number of staff on site and the types of activities that may be conducted in their laboratories. During 2020, Penn restricted their researchers from being on site in their laboratories and closed a number of research centers that our researchers use for data analysis, which limited their ability to analyze some of the data generated during our preclinical studies. As a result, our receipt of data and reports from some of those studies was delayed. The University of Florida, or UF, also limited staff on site in their laboratories and vector production facilities, which delayed our obtaining certain reagents and other materials used for our gene therapy programs. In addition, UMMS suspended researcher access to their laboratories and the conduct of certain animal studies, which delayed our timelines for our miniCEP290 and miniUSH2A sponsored research programs. Shortages and governmental restrictions arising from the COVID-19 pandemic may also disrupt the ability of our academic collaborators, clinical trial sites and other contract research organizations to procure items that are essential for our research and development activities, including, for example, medical and laboratory supplies used in our clinical trials, including personal protective equipment for site staff, or animals that are used for preclinical studies. For example, there have been shortages of various animals used in research studies, such as several types of monkeys, which are typically sourced from China, due to the COVID-19 pandemic and disruptions to the global supply chain. Although our development programs have not yet been affected by these shortages, we are continuing to monitor the situation. There is no guarantee that the COVID-19 pandemic will not further impact our supply chain, which could have a material impact on our research and development programs.

Our reliance on these third parties for preclinical testing, analytical testing and clinical development activities reduces our control over these activities but does not relieve us of our responsibilities. For example, we remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA and other regulatory authorities require us to comply with GCPs for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. We also are required to register ongoing clinical trials and post the results of completed clinical trials on various government-sponsored databases within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Over the past few years, there has been increasing oversight by the FDA and other regulatory authorities on data integrity, especially in the research and development of novel therapies such as gene therapies. We rely upon the practices of and systems in place at our third party collaborators in generating data to support our preclinical and clinical development programs and for quality control over this data. Their practices and systems vary in scope and effectiveness and we have a limited number of personnel to supervise, including to perform quality assurance of, those practices and systems. Until recently, the COVID-19 pandemic prevented us from performing audits on our vendors and clinical trial sites that we otherwise would have performed, which decreases the level of oversight we have over those vendors and clinical trial sites and increases the risk of non-compliance. Any failure of such practices or systems to comply with our stated protocols or regulatory requirements could adversely affect the quality of the data generated by these studies. For a number of our analytical development and testing providers, our CDMOs subcontract and manage that work on our behalf and we have less visibility into or control over their activities. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our preclinical studies, analytical testing or clinical trials in accordance with regulatory requirements or our stated protocols, we would not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and would not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates.

We also rely upon other third parties to store, package, label and distribute drug supplies for our clinical trials and to store materials for our development activities. In particular, we rely on a limited number of third parties to store starting materials, drug substance and drug product for our product candidates and programs. Our product candidates are required to be stored and shipped at certain temperatures and a deviation from those requirements may result in delays or additional costs. In addition, a number of these vendors are also servicing other clients who are developing vaccines or medicines for the COVID-19 pandemic and those vendors may prioritize those other customers over us. Any performance failure on the part of these third parties could delay preclinical development, clinical development or marketing approval of our product candidates or commercialization of our products and adversely affect our results of operations.

We have historically relied upon third-party researchers to advance our sponsored research programs. We may not be able to fully realize the benefits of any intellectual property generated by these arrangements. We are in the process of transitioning the minigenes research from UMMS to us.

Part of our strategy to date involves collaborative sponsored research performed by third-party research institutions. Although we have sought to direct this research and advise on the design of these projects as well as critical development decisions, this research has been performed by individuals who are not our employees and the timeline and quality of the research efforts are outside of our direct control. Academic investigators and other researchers may have different priorities than we do as a biopharmaceutical drug development company. The sponsored research agreements we have entered into for these programs generally provide that any inventions resulting from the research will be owned by the research institution performing the research, and that we have an option to negotiate for a license to develop and exploit any such inventions. If we exercise our option rights for a program that is attractive to us, we may not be successful at in-licensing rights to the inventions or may need to agree to unfavorable terms.

Confidential information and new inventions derived from these research efforts may be disclosed through publications or other means prior to us or our third-party research collaborators being able to protect such intellectual property through the filing of patent applications. Our third-party research collaborators may not be able to obtain or maintain full ownership of inventions that are derived from the research or associated rights, which may limit their ability to provide us with a license to all relevant intellectual property on terms and conditions that are acceptable to us. Even if our collaborative research efforts yield promising results or new technological advances, they may not ultimately result in our being able to protect, develop or exploit the resulting intellectual property.

We are currently transitioning the miniABCA4 and miniUSH2A research programs from UMMS to us. Those programs were previously collaborative sponsored research programs overseen by researchers at UMMS, and we now plan to continue those research programs internally. As part of this transition, we need to obtain new animals for the miniABCA4 program and negotiate for rights to continue using the existing animals for the miniUSH2A program, which has led to delays in our timelines for receipt of data from both programs. We may not be successful in pursuing these research programs internally.

We may seek a collaborator for the further development and potential commercialization of Zimura in one or more territories outside the United States. We also plan to seek a collaborator or licensee for the further development of IC-100 and/or IC-200. If we are not able to establish collaborations to advance these or any of our other development programs, we may have to alter our development and commercialization plans.

The development and potential commercialization of our product candidates is likely to require substantial additional cash to fund expenses and the hiring of additional qualified personnel. In addition, the development or commercialization of a product candidate in markets outside of the United States requires regulatory expertise and commercial capabilities that are specific to the local market. A number of countries require sponsors to perform a clinical trial in the local jurisdiction or with patients similar to the demographics of the local population as a condition to approving the drug. For some of our product candidates, we may seek to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates. In particular, we may seek a collaborator for the further development and potential commercialization of Zimura in one or more territories outside the United States. We also plan to seek a collaborator or licensee for the further development and potential commercialization of IC-100 and IC-200.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials and other data we have generated for the product candidate, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, any patent or other forms of exclusivity for such product candidate and the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such collaboration could be more attractive than the one with us for our product candidate. For our gene therapy programs including IC-100 and IC-200, we are party to in-license agreements that limit who we can collaborate with or may require the approval of our licensor for us to enter into a collaboration, and any future license agreements that we may enter into may have similar restrictions. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of business combinations among pharmaceutical and biotechnology companies over the past decade that have resulted in a reduced number of potential future collaborators and this trend is likely to continue.

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 those product candidates or bring them to market and generate product revenue in line with our expectations. For Zimura, if we choose to and are unable to find a collaborator for potential commercialization outside the United States, we likely will need to raise additional capital, hire additional personnel and undertake the effort ourselves, any of which may be unsuccessful.

If we enter into collaborations with third parties for the development or commercialization of our product candidates, any such collaborations will carry numerous risks. If any of our collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

We may utilize a variety of types of collaboration, distribution and other marketing arrangements with third parties to develop or commercialize our product candidates, either in the United States, or in markets outside the United States. We also may seek third-party collaborators for development and commercialization

of other product candidates we may develop. Our likely collaborators for any sales, marketing, distribution, development, licensing or broader collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. If we enter into any arrangements with third parties, we would likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities and efforts to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates could pose numerous risks to us, including the following:

- collaborators, including marketing and distribution collaborators, have significant discretion in determining the efforts and resources that they will apply to these collaborations and may not perform their obligations as expected;
- collaborators may de-emphasize or not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus, changes in product candidate priorities or available funding or changes in priorities as a result of a merger, acquisition or other corporate restructuring or transaction;
- 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 or product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- we could grant exclusive rights to our collaborators, which would prevent us from collaborating with others;
- we may be obligated to supply the collaborator with drug substance or drug product in an amount sufficient for its needs, or may be dependent on the supply of certain materials or products by the collaborator;
- disagreements or disputes with collaborators, including disagreements or disputes over proprietary rights, contract interpretation or the preferred course of development or commercialization, might cause delays or termination of the research, development or commercialization of products or 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 divert management attention and resources, be time-consuming and expensive, and be uncertain in outcome;
- collaborators may not properly maintain or defend our intellectual property rights, may infringe the intellectual property rights of third parties, may misappropriate our trade secrets 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 litigation and potential liability;
- laws or practices in certain foreign jurisdictions may require that as a condition of working with a collaborator in such jurisdiction, we agree to certain foreign ownership restrictions, use certain local services or providers, share or license certain of our proprietary information or technology or agree to other conditions that are not attractive to us; and
- collaborations may be terminated at the convenience of the collaborator, our breach of the terms of the collaboration or other reasons and, if terminated, we may need to raise additional capital to pursue further development or commercialization of the applicable product candidates.

If a collaborator of ours were to be involved in a business combination or other transaction, the foregoing risks would be heightened, and the business combination or transaction may divert attention or resources or create competing priorities. The collaborator may delay or terminate our product development

or commercialization program. If one of our collaborators terminates its agreement with us, we could find it more difficult to attract new collaborators and the perception of our company could be adversely affected.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all.

We depend on licenses and sublicenses for development and commercialization rights to Zimura, IC-100, IC-200 and our miniCEP290 program. These license arrangements, as well as the Inception 4 Merger Agreement, impose diligence obligations on us. We depend on research licenses from UMMS for our miniABCA4 and miniUSH2A programs. We may enter into similar arrangements for future product candidates or technologies. Termination of licenses or the failure by us or our licensees, including our potential future commercialization or collaboration partners, to comply with obligations under these or other agreements could materially harm our business and prevent us from developing or commercializing our products and product candidates.

We are party to a license agreement with Archemix on which we depend for rights to Zimura. We are party to two different license agreements, each with UFRF and Penn, on which we depend for rights to IC-100 and IC-200. We are also party to a license agreement with UMMS for our miniCEP290 program. These agreements generally impose diligence, development and commercialization timelines, milestone payment, royalty, insurance and other obligations on us. Generally, the diligence obligations contained in these agreements require us to use commercially reasonable efforts to develop, seek regulatory approval for and commercialize the applicable product candidate in the United States and certain territories outside of the United States, including the European Union, Japan and such other markets where it would be commercially reasonable to do so. For IC-100, IC-200 and our miniCEP290 program, we are party to agreements with academic institutions, and under those agreements, we must meet certain milestones by certain timelines and if we fail to do so, we may need to expend significant amounts of money to extend those timelines or otherwise be in breach of those agreements. For IC-100 and IC-200, those milestones include two upcoming development milestone deadlines, one for each program, that we do not currently expect to meet. We are in the process of negotiating those timelines with our licensors and seeking a collaborator for the further development of those product candidates. If we are unable to negotiate an extension to such timelines and fail to meet the specified milestone timelines, UFRF and Penn have the right to terminate the license agreements on which we depend for rights to IC-100 and IC-200 and we could lose our rights to develop and market IC-100 and IC-200, or to have a potential collaborator or licensee do so.

Under the license agreements for our product candidates, we would not be able to avoid our payment obligations even if we believed a licensed patent right was invalid or unenforceable because the license agreements provide that our licenses to all licensed patent rights would terminate if we challenge the validity or enforceability of any licensed patent right. The Inception 4 Merger Agreement, pursuant to which we acquired IC-500, also imposes specified diligence and milestone payment obligations on us. We may enter into acquisition or licensing agreements in the future that could impose similar obligations on us.

We are also party to research licenses with UMMS for rights to continue with the research and development of our miniABCA4 and miniUSH2A programs. The term of these research licenses is the same as the term for us to exercise our rights under option agreements pursuant to which UMMS granted us option rights to in-license certain patent applications covering these programs. If we fail to exercise our option rights or fail to agree to terms with UMMS for a license for further development and commercialization of the applicable program, we may lose our rights to continue with conducting research of that program.

If we fail to comply with our obligations under current or future acquisition and licensing agreements, or otherwise breach an acquisition or licensing agreement as a result of our own actions or inaction or the actions or inactions of our commercialization or collaboration partners, our counterparties may have the right to terminate these agreements, in which event we might not have the rights or the financial resources to develop, manufacture or market any product that is covered by these agreements. Our counterparties also may have the right to convert an exclusive license to non-exclusive in the territory in which we fail to satisfy our diligence obligations, which could materially adversely affect the value of the product candidate being developed under any such agreement. Termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or restated agreements with less favorable terms, seek alternative sources of financing or cause us to lose our rights under these agreements, including our rights to Zimura, IC-100, IC-200, our miniCEP290 program, and other important intellectual

property or technology. Any of the foregoing could prevent us from commercializing our product candidates, which could have a material adverse effect on our operating results and overall financial condition. In the case of our limited diligence obligation under the Inception 4 Merger Agreement, a potential breach of our obligation to use commercially reasonable efforts to develop an HtrA1 inhibitor could lead to a lawsuit with the former equityholders of Inception 4 and result in potential liability to us of up to \$5.0 million.

In addition to the above risks, certain of our intellectual property rights are sublicenses under intellectual property owned by third parties, in some cases through multiple tiers. The actions of our licensors may therefore affect our rights to use our sublicensed intellectual property, even if we are in compliance with all of the obligations under our license agreements. Should our licensors or any of their upstream licensors fail to comply with their obligations under the agreements pursuant to which they obtain the rights that are sublicensed to us, or should such agreements be terminated or amended, our ability to develop and commercialize the relevant product candidates may be materially harmed. While the applicable agreements may contain contractual provisions that would in many instances protect our rights as a sublicensee in these circumstances, these provisions may not be enforceable and may not protect our rights in all instances. Further, we do not have the right to control the prosecution, maintenance and enforcement of all of our licensed and sublicensed intellectual property, and even when we do have such rights, we may require the cooperation of our licensors and their upstream licensors, which may not be forthcoming. Our business could be materially adversely affected if we are unable to prosecute, maintain and enforce our licensed and sublicensed intellectual property effectively.

Moreover, the license agreements for IC-100, IC-200 and our miniCEP290 program and the research licenses for our miniABCA4 and miniUSH2A programs reserve for the licensing academic institutions the right to continue to practice for research and educational purposes, the inventions covered by the intellectual property rights that we have in-licensed. These licensing institutions or their collaborators may generate scientific, preclinical or clinical data with respect to our product candidates, separate from our research and development efforts, that is inconsistent with other data for such product candidates, including additional preclinical and clinical data that we develop. Investigators at these institutions may publish, present, or otherwise publicly disclose this data, which may have an adverse impact on the prospects of the development of our product candidates and may harm our business. In addition, these institutions may use these data to support new patent applications which could result in the issuance of patents that may limit our freedom to operate without our obtaining additional licenses to these newly developed inventions.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain or do not maintain patent protection for our technology and products, or if the scope of the patent protection is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be adversely affected.

We currently rely on and expect to continue to rely on patent rights to protect our competitive position. Once our patents expire, we may not be able to exclude competitors from commercializing products similar or identical to ours. The U.S. patent rights covering Zimura as a composition of matter are expected to expire in 2025. The U.S. patent rights covering methods of treating certain complement protein mediated disorders with Zimura are expected to expire in 2026. The European patent rights covering the composition of matter of Zimura and methods of treating certain complement protein mediated disorders with Zimura are expected to expire in 2025. We expect the clinical development of, and if clinical development is successful, the process for filing and obtaining marketing approval for, Zimura to continue for the next few years. If so, the patents covering Zimura may expire before the date by which we or a potential commercial partner would be able to commercialize Zimura in the United States or Europe if we seek and obtain marketing approval. Even if we are able to obtain marketing approval for and commercially launch Zimura prior to the expiration of these patents, the remaining term of those patents may be shorter than we anticipate. If we are successful in developing a sustained release delivery technology for Zimura, we may be able to obtain patent protection for Zimura with the sustained release delivery technology beyond the current patent life for Zimura; however, obtaining the additional patent protection from these efforts or other efforts to extend the patent life of Zimura is not guaranteed. Although the patent rights under existing patent applications for

IC-500, IC-100, IC-200 and our miniCEP290 program are not expected to expire until 2037 or after, we face the same risk with those product candidates and programs and any future product candidates that we may develop.

Our licensed patent rights for IC-200 and certain of our licensed patent rights for Zimura and IC-100 are method-of-treatment patents and patent applications. Method-of-treatment patents are more difficult to enforce than composition-of-matter patents because of the risk of off-label sale or use of a drug for the patented method. The FDA does not prohibit physicians from prescribing an approved product for uses that are not described in the product's labeling. Although use of a product directed by off-label prescriptions may infringe our method-of-treatment patents, the practice is common across medical specialties, particularly in the United States, and such infringement is difficult to detect, prevent or prosecute. Off-label sales of other products having the same drug substance as our product candidates would limit our ability to generate revenue from the sale of such product candidates, if approved for commercial sale. In addition, patent laws in Europe and some other jurisdictions generally make the issuance and enforcement of patents that cover methods of treatment of the human body difficult in those jurisdictions. Further, once the composition-of-matter patents relating to Zimura or IC-100 in a particular jurisdiction, if any, expire, competitors will be able to make, offer and sell products containing the same drug substance as Zimura or IC-100 in that jurisdiction so long as these competitors do not infringe any of our other patents covering Zimura's or IC-100's composition of matter or method of use or manufacture, do not violate the terms of any marketing exclusivity that may be granted to us by regulatory authorities and they obtain any necessary marketing approvals from applicable regulatory authorities. In such circumstances, we also may not be able to detect, prevent or prosecute off-label use of such competitors' products containing the same drug substance as Zimura or IC-100, even if such use infringes any of our method-of-treatment patents.

Additionally, we do not currently have any composition-of-matter patent applications or patents covering IC-200. The method-of-treatment patent applications that Penn filed and which we in-licensed may not issue as patents. Even if they are issued as patents, any of the claims covering IC-200 may be declared unpatentable or invalid, or the patents may be declared unenforceable. An inability to secure patent coverage for IC-200 may diminish the value of IC-200 and our competitive position.

Depending on potential delays in the regulatory review process for any of our product candidates, we may be able to obtain patent term extension for one of our patents in the United States under the Hatch-Waxman Act, which permits a patent extension term of up to five years as partial compensation for the portion of the patent term effectively lost during product development and the FDA regulatory review process occurring after the issuance of a patent, but we can provide no assurances that such an extension term will be obtained. Similar to the patent term extension available in the United States, the regulatory framework in the European Union and certain other foreign jurisdictions provides the opportunity to extend the term of a patent that covers an approved drug in certain circumstances. Notwithstanding the availability of patent term extension provisions, we may not be granted patent term extensions because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements, such as using diligent efforts to develop a drug candidate. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term or scope of any such extension is less than we request, any period during which we have the right to exclusively market our product would be shorter than we would otherwise expect, and our competitors may commercialize competing products following our patent expiration, and our revenue could be reduced, possibly materially.

The Hatch-Waxman Act also permits the manufacture, use, offer for sale, sale or importation of a patented invention other than a new animal drug or veterinary biological product, if the manufacture, use, offer for sale, sale or importation is solely for uses that are reasonably related to development of information that could be submitted to the FDA. For this reason, our competitors might be able under certain circumstances to perform activities within the scope of the U.S. patents that we own or in-licensed without infringing such patents. This might enable our competitors to develop during the lifetime of these patents drugs that compete with our product candidates.

Our issued patents may not be sufficient to provide us with a competitive advantage. For example, competitors may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner. Even if our owned or licensed patent applications issue

as patents, they may not issue with a scope broad enough to provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage.

The issuance of a patent is not conclusive as to its inventorship, ownership, scope, term, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. For example, if we receive marketing approval for our product candidates, other pharmaceutical companies may seek approval of generic or biosimilar versions of our products with the FDA or regulatory authorities in other jurisdictions. We may then be required to initiate proceedings against such companies in order to enforce our intellectual property rights. The risk of being involved in such proceedings is likely to increase if our products are commercially successful. In any such proceedings, the inventorship, ownership, scope, term, validity and enforceability of our patents may be challenged. These and other 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 prevent others from using or commercializing similar or identical technology and products or from launching generic or biosimilar versions of our products, or could limit the duration of the patent protection of our technology and products. The launch of a generic version of one of our products in particular would be likely to result in an immediate and substantial reduction in the demand for our product, which could have a material adverse effect on our business. 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 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, is highly uncertain and involves complex legal and factual questions. Patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents.

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary technology and products. We seek to protect our proprietary position by filing in the United States and in certain foreign jurisdictions patent applications related to our novel technologies and product candidates that are important to our business.

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 or in a timely manner. It is also possible that we will fail to identify or protect patentable aspects of our research and development output before it is too late to obtain patent protection. In addition, we may not pursue or obtain patent protection in all major markets. Moreover, in some circumstances, we do not have the right to control the preparation, filing or prosecution of patent applications, or to maintain the patents, covering technology that we license from third parties or covering technology that a collaboration or commercialization partner may develop, the eventual commercialization of which could potentially entitle us to royalty payments. In some circumstances, our licensors may have the right to enforce the licensed patents without our involvement or consent, or to decide not to enforce or to allow us to enforce the licensed patents. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. If any such licensors fail to maintain such patents, or lose rights to those patents, the rights that we have licensed may be reduced or eliminated and our ability to develop and commercialize any of our products that are the subject of such licensed rights could be adversely affected.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the laws of foreign jurisdictions may not protect our rights to the same extent as the laws of the United States. For example, patent laws in Europe and some other jurisdictions restrict 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 cannot be certain that we or our licensors were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions. Moreover, the U.S. Patent and Trademark Office, or USPTO, might require that the term of a patent issuing from a pending patent application be disclaimed and limited to the term of

another patent that is commonly owned or names a common inventor. As a result, the issuance, scope, term, validity, enforceability and commercial value of our patent rights are highly uncertain.

Our pending and future patent applications, and any collaboration or commercialization partner's pending and future patent applications, may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. In particular, during prosecution of any patent application, the issuance of any patents based on the application may depend upon our or their ability to generate additional preclinical or clinical data that support the patentability of our proposed claims. We or any collaboration or commercialization partner may not be able to generate sufficient additional data on a timely basis, or at all. In addition, the issuance of any patents will depend on the existence of any prior art that comes to the patent examiner's attention during prosecution, sometimes through the actions of third parties, and whether our claimed invention meets the statutory criteria for being granted a patent in light of the prior art. Moreover, changes in either the patent laws or interpretation of the patent laws in the United States or other countries may diminish the value of our or a collaboration or commercialization partner's patents or narrow the scope of our or their patent protection.

Patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. The Leahy-Smith America Invents Act, or the Leahy-Smith Act, revised United States patent law in part by changing the standard for patent approval from a "first to invent" standard, which had existed before March 2013, to a "first to file" standard and developing a post-grant review system. For example, if we are the first to invent a new product or its use, but another party is the first to file a patent application on this invention, under the new law the other party may be entitled to the patent rights on the invention.

Moreover, we may be subject to a third-party preissuance submission of prior art to the USPTO, or become involved in opposition, derivation, reexamination, inter partes review, post-grant review, interference proceedings or other patent office proceedings or litigation, in the United States or elsewhere, challenging our patent rights or the patent rights of others. The Leahy-Smith Act expanded the ability of third parties to challenge the patents held by patentees through administrative reviews at the USPTO, which may facilitate others to challenge our patents. Based on available information, we believe that *inter partes* review proceedings, brought by financial investors who may be selling short the stock of the patent holder, are becoming more prevalent. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights; allow third parties to commercialize our technology or products and compete directly with us, without payment to us; or result in our inability to manufacture or commercialize products without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to develop or commercialize current or future product candidates.

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

Competitors may infringe or otherwise violate our patents, trademarks, copyrights or other intellectual property. To counter infringement or other violations, we may be required to file claims, which can be expensive and time consuming. For some of our licensed patent rights, we may need the cooperation of our licensors to file such claims. Any such claims could provoke these parties to assert counterclaims against us, including claims alleging that we infringe their patents or other intellectual property rights. In addition, in a patent infringement proceeding, a court may decide that one or more of the patents we assert is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to prevent the other party from using the technology at issue on the grounds that our patents do not cover the technology. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In such a case, we could ultimately be forced to cease use of such marks. In any intellectual property litigation, even if we are successful, any award of monetary damages or other remedy we receive may not be commercially valuable and we may not be able to obtain injunctive relief. 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.

Third parties may initiate legal proceedings or take other actions alleging that we are infringing or otherwise violating their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability and the ability of our collaborators, including our contract manufacturers and any commercial partners, to develop, manufacture, market and sell our product candidates and products and use our proprietary technologies without infringing or otherwise violating the intellectual property and other proprietary rights of third parties. New patent applications in the field of biotechnology and pharmaceuticals are being filed at a rapid pace.

There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. We or any collaborators may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference, derivation, re-examination, post-grant review, inter partes review, opposition, cancellation or similar proceedings before the USPTO or its foreign counterparts. The risks of being involved in such litigation and proceedings may increase as our product candidates near commercialization.

Third parties may assert infringement or other claims against us or our collaborators based on existing or future intellectual property rights. We or they may not be aware of all such intellectual property rights potentially relating to our product candidates and their manufacture, use or sale. In addition, contract manufacturers may inadvertently incorporate intellectual property belonging to third parties into our products or the manufacturing processes for these products without our knowledge. There is a lag between the filing of a patent application, which generally establishes the priority date of a patent claim, and the publication of such patent application. During the period between filing of a patent application and publication of the application, we would not otherwise have a means of discovering the existence or extent of the claimed inventions contained in a filed but unpublished patent application. Patent applications are often drafted broadly, and the scope of patent claims that may ultimately issue may not be known until several years after a patent application is filed and published. We may make development or pipeline decisions based on our belief that our product candidates can be distinguished from patent claims contained in published patent applications or issued patents, that patent claims contained in published patent applications are unlikely to issue as drafted, or that claims contained in issued patents are invalid. These positions regarding third-party intellectual property may not ultimately be successful in litigation. Thus, we do not know with certainty that our product candidates, or our intended manufacture or commercialization thereof, does not and will not infringe or otherwise violate any third party's intellectual property.

If we are or any of our collaborators is found to infringe or otherwise violate a third party's intellectual property rights, we or they could be required to obtain a license from such third party to continue developing, manufacturing and marketing our product candidates or products or to continue using a trademark. However, we or our collaborators may not be able to obtain any required license on commercially reasonable terms or at all. Even if we or they were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us or our collaborators and could require us or them to make substantial licensing and royalty payments. We or our collaborators could be forced, including by court order, to cease using or 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 or other intellectual property right. A finding of infringement could prevent us or our collaborators from making or commercializing our product candidates or force us or them to cease some of our business operations, which could materially harm our business. Claims that we or our collaborators have misappropriated the confidential information or trade secrets of third parties could expose us or them to similar liabilities and have a similar negative impact on our business.

We may be subject to claims by third parties asserting that we or our employees or contractors have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees and contractors were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees and contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees or contractors have used or disclosed

intellectual property, including trade secrets or other proprietary information, of such employee's or contractor's former employer. Litigation may be necessary to defend against these claims.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact conceives or develops intellectual property that we regard as our own. Moreover, because we acquired some of the rights to our product candidates from third parties, we must rely upon these third parties' practices, and those of their predecessors, with regard to the assignment of intellectual property therein, including the intellectual property rights protecting IC-500 and the other HtrA1 inhibitors we acquired in the Inception 4 acquisition transaction. Our and their assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel.

Intellectual property litigation could cause us to spend substantial resources and could distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and 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. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

Obtaining and maintaining our patent protection depends on compliance with various procedural, documentary, fee payment and other requirements imposed by governmental patent offices, 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 patent offices in foreign countries in several stages over the lifetime of the patent. The USPTO and patent offices in foreign countries require compliance with a number of procedural, documentary, fee payment and other requirements during the patent application process. While 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 non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of a patent or patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market sooner than we expect, which would have a material adverse effect on our business.

In addition, we may decide not to pursue patent prosecution in certain markets or jurisdictions. For example, we may decide that the costs of obtaining and maintaining patent protection in a certain jurisdiction may outweigh the commercial benefits of patent protection. If so, our competitors may enter into and commercialize identical or similar products in that jurisdiction and if we choose to commercialize our products in that jurisdiction, we may not be able to exclude our competitors in the same way as if we had chosen to pursue patent prosecution in that jurisdiction.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and products, we also rely upon trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our outside scientific collaborators, contract manufacturers, potential business development counterparties, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. We cannot guarantee that we have executed such agreements with each party that may have or have had access to our trade secrets. Moreover, because we acquired IC-500 and our other HtrA1 inhibitors through the acquisition of Inception 4, we are relying upon Inception 4's, and its prior owner's, practices with regard to the protection of trade secrets and intellectual property rights for the period prior to our acquisition of Inception 4. Any party with whom we or they have executed a non-disclosure and confidentiality agreement may breach that agreement and disclose our proprietary information, including our trade secrets, and we may not become aware of such breach or may not be able to obtain adequate remedies. As we work on transitioning from a development-stage company to a company capable of commercializing a pharmaceutical product, we are hiring many new employees and engaging additional consultants and service providers, which increases the risk of disclosure or misuse of our proprietary information. Our proprietary information may also be obtained by third parties by other means, such as breaches of our physical or computer security systems.

Detecting the disclosure or misappropriation of a trade secret and enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us and our competitive position would be harmed.

Risks Related to Information Technology and Data Protection

We rely significantly upon our information technology systems and any failure, inadequacy, interruption or security lapse of those systems could harm our ability to operate our business effectively. Information technology risks have become more significant over time, including as a result of widespread remote working during the COVID-19 pandemic.

In the ordinary course of business, we collect, process and maintain personal and other sensitive data on our information technology networks. These data include our intellectual property and other proprietary or confidential information relating to our business as well as proprietary or confidential information of third parties including business collaborators. These data also include personal information relating to our clinical trial participants, employees and contractors, clinical investigators and other study staff and healthcare professionals. The secure maintenance of this sensitive information is critical to our business and reputation.

We have implemented a number of measures to protect our information technology systems. These measures include, among others, creation of a cyber-security governance team and an incident response plan and other standard operating procedures for responding to any cyber-security incidents, mandatory routine cyber-security training, including social engineering training, for our employees and consultants with access to our information technology systems, and engagement of a third-party vendor to regularly assess our informational technology systems and potential vulnerabilities.

Despite the implementation of security measures, our information technology systems are vulnerable to compromise, damage, loss or exfiltration from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. In particular, companies and other entities and individuals have been increasingly subject to a wide variety of cyber and ransomware attacks, phishing scams and other attempts to gain unauthorized access to systems and information, including through social engineering. The number and complexity of these threats continue to increase over time.

These threats can come from a variety of sources, ranging in sophistication from individual hackers to state-sponsored attacks. Cyber threats may be broadly targeted, or they may be custom-crafted against our information systems. In particular, there have been increasing number of cyber threats and attempts by foreign hackers targeted towards U.S. pharmaceutical and biotechnology companies and vendors they work with.

As a result of the COVID-19 pandemic, we have switched to remote working since March 2020 and as a result, have increasingly relied upon teleconferencing and cloud-based means of communication and data storage. Many other companies have done the same. There have been numerous publicized attempts of bad actors attempting to intercept proprietary communications. We may be similarly susceptible to those kinds of threats.

Cyber-attacks have become more prevalent and much harder to detect and defend against. Our networks and storage applications may be subject to unauthorized access by hackers or breached due to human error, malfeasance or other system disruptions. We may not anticipate or immediately detect such incidents and the damage caused by such incidents. System failures, data breaches and any unauthorized access, use or disclosure of our information or data could compromise our intellectual property and expose sensitive business information; lead to unauthorized exposure of personal information of our clinical trial participants, our employees or contractors, our clinical investigators or other study staff, or others we work with; and/or result in disruptions to our research and development activities and business operations, including potential product development, regulatory approval and commercialization delays.

In addition, cyber-attacks and the measures we implement to prevent, detect, and respond to them could cause us to incur significant remediation costs, including costs to recover or reproduce any compromised data, expose us to contractual damages and/or regulatory and other liability, require us to make certain breach notifications, and divert the attention of our management and key information technology resources. Any loss of preclinical data or clinical trial data could result in delays to our product development, marketing approval and commercialization efforts. We may not have adequate insurance coverage to provide compensation for any losses associated with such events and cybersecurity insurance is becoming more expensive. Any breach of security could harm our reputation and deter patients, clinical investigators, or other healthcare professionals and business collaborators from participating in our clinical trials or otherwise working with us.

We also rely significantly upon the information technology systems of our third-party service providers and any failure, inadequacy, interruption or security lapse of those systems could harm our ability to operate our business effectively. We have limited control and oversight over the information security systems and practices of third parties.

In the ordinary course of business, we rely on third parties, including clinical trial sites, CROs, CDMOs and other service providers, to collect, process and maintain personal and other sensitive data on their respective networks for our research and development activities and other business operations. These data include our intellectual property and other proprietary or confidential information relating to our business, as well as personal information relating to our clinical trial participants, employees and contractors, and clinical investigators and other study staff. The maintenance of our data by third parties does not absolve us of our responsibility for the security and integrity of this data.

We have limited control and oversight over the information security systems and practices of third parties. Those systems and practices vary widely in sophistication and robustness. We have limited personnel and resources to oversee the information security systems of third parties with whom we work.

Like our information security systems, those of our third-party service providers are vulnerable to compromise, damage, loss or exfiltration from cyber-attacks, computer viruses, unauthorized access and other causes. Our third-party service providers may not anticipate or immediately detect such incidents and the damage caused by such incidents or notify us in a timely or complete manner. System failures, data breaches and any unauthorized access, use or disclosure of our information or data maintained by our third-party service providers could lead to similar consequences for us as similar events involving our information technology systems, including compromise of our intellectual property or other sensitive personal or business information, disruptions and delays to our research and development activities and other

operations, contractual and regulatory liability, data breach notifications, expenditure of significant costs and resources for remediation and harm to our reputation. Recently, there has been an increasing number of and severity of cyber-attacks, especially ransomware attacks, against the information security systems of companies across the supply chain and other critical infrastructure service providers.

In September 2020, one of our vendors for the GATHER2 trial suffered a ransomware attack on several of its servers. While this vendor investigated and worked to mitigate the effects of the incident, we deployed a backup process for the work this vendor was performing for us. Although we do not believe this incident had a material impact on the GATHER2 trial or otherwise on our business or operations, similar kinds of incidents may occur in the future with this or our other vendors.

Compliance with global privacy and data security requirements could result in additional costs and liabilities to us or inhibit our ability to collect and process data in line with our expectations, and the failure to comply with such requirements could have a material adverse effect on our business, financial condition or results of operations.

The regulatory framework for the collection, use, safeguarding, sharing, transfer and other processing of personal information is rapidly evolving worldwide and is likely to remain uncertain for the foreseeable future. Globally, virtually every jurisdiction in which we operate has established its own data security and privacy frameworks with which we must comply, and those frameworks may not be consistent. For example, the collection, use, disclosure, transfer, or other processing of personal data regarding individuals in the European Union, including personal health data, is subject to the General Data Protection Regulation, or GDPR, which became effective on May 25, 2018. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, including requirements relating to processing health and other sensitive data, obtaining consent of the individuals to whom the personal data relates, providing information to individuals regarding data processing activities and their rights, conducting data protection impact assessments before starting certain processing activities, implementing safeguards to protect the security and confidentiality of personal data, providing notification of data breaches, and taking certain measures when engaging third-party data processors. The GDPR also imposes strict rules on the transfer of personal data to countries outside the European Union, including the United States, some of which are currently in flux, and permits data protection authorities to impose large penalties for violations of the GDPR, including potential fines of up to €20 million or 4% of annual global revenues, whichever is greater. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. The GDPR also provides certain discretion to individual European member states, and many of them have enacted local legislation implementing the GDPR that differ from one another. The GDPR compliance framework is evolving as data protection authorities enforce applicable requirements and as European courts interpret the GDPR. We are aware that many other countries have enacted or are considering legislation similar to the GDPR.

Similar actions are either in place or under way in the United States. There are a broad variety of data protection laws that are applicable to our activities, and a wide range of enforcement agencies at both the state and federal levels with the authority to review our privacy and data security practices. The Federal Trade Commission and state Attorneys General have been increasingly active in reviewing companies' privacy and data security practices in relation to consumer information. New legislation and regulations are being considered, and in certain cases enacted, at both the state and federal levels. For example, the California Consumer Privacy Act, or the CCPA, which went into effect on January 1, 2020, and its replacement, the California Privacy Rights Act, which will become effective on January 1, 2023, are creating similar risks and obligations as those created by the GDPR, although the CCPA exempts certain information collected as part of a clinical trial that is subject to the Federal Policy for the Protection of Human Subjects (the Common Rule). The New York SHIELD Act, which became fully effective in March 2020, imposes certain data security and data breach notification requirements on organizations that collect personal information of New York residents. Many other states are considering similar legislation. A broad range of legislative measures are being introduced at the federal level. Accordingly, failure to comply with federal and state laws (both those currently in effect and future legislation) regarding privacy and security of personal information could expose us to fines and penalties under such laws. We also may be subject to consumer class action litigation related to alleged noncompliance with these laws. Even if we are not determined to have violated

these laws, responding to government investigations and/or consumer litigation in these areas typically requires the expenditure of significant resources and has the potential to generate negative publicity, which could harm our reputation and our business.

Given the breadth and depth of changes in data protection obligations, preparing for and complying with these requirements has required and will continue to require significant time, resources and a review of our technologies, systems and practices, as well as those of any third-party collaborators, service providers, contractors or consultants that process or transfer personal data on our behalf. The GDPR and other changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, such as healthcare data or other personal information from our clinical trials, have resulted in certain changes to our business practices, such as additional consideration given to the GDPR and other relevant data protection laws in setting up clinical trial agreements and informed consent forms for our GATHER2 trial, and may require further changes to our business practices. Any non-compliance by us or our employees, consultants or contractors with the GDPR or other applicable data protection laws could lead to setbacks in the development or approval of our product candidates, government enforcement actions, private litigation, significant fines and penalties, or reputational harm and could have a material adverse effect on our business, financial condition or results of operations.

Risks Related to Employee Matters and Managing Our Operations

We are a development-stage company with a limited number of employees to oversee our research and development programs and general and administrative functions. We are in the process of recruiting new personnel to prepare for the potential commercialization of Zimura and to support our growth. We may experience difficulties in recruiting necessary personnel and in retaining key employees and consultants.

We are a development-stage company with a total of 79 full-time employees as of October 15, 2021. These employees support key areas of our business and operations, including commercial operations, clinical operations, regulatory affairs, drug safety, data management, medical affairs, scientific research, process and analytical development, drug substance and drug product manufacturing, quality control, materials and supply chain management, and quality assurance, as well as all of our general and administrative functions and public company infrastructure.

We remain highly dependent on Glenn P. Sblendorio, our chief executive officer, and Dr. Pravin U. Dugel, our president, as well as the other principal members of our management, scientific and clinical teams. We do not maintain “key person” insurance for any of our executives or other employees. Although we have entered into letter agreements with our executive officers, each of them and our non-executive employees may terminate their employment with us at any time. As a result, key employees whom we expect to retain to assist with the growth of our business may choose not to remain employees. Additionally, we have only a small number of employees supporting some of the key areas of our business and operations. If any of those employees were to leave our company or become unavailable due to the COVID-19 pandemic or other reasons, the loss of their services could seriously disrupt our ability to carry on our operations as planned and seriously harm our ability to successfully implement our business plan.

Furthermore, replacing any of our 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 marketing approval of and commercialize products. 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, if at all, given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. As we conduct our GATHER2 trial and prepare for the potential filing of an NDA and an MAA for and the potential commercialization of Zimura, and continue the development of IC-500, we have been and expect we will need to continue hiring additional commercial operations, medical affairs, clinical operations, quality assurance, manufacturing, analytical, regulatory, pharmacovigilance and other personnel from this limited pool. We have only recently hired a chief commercial officer and will need to hire additional commercialization and medical affairs personnel as we prepare for the potential commercialization of Zimura. If we experience any challenges or delays in the hiring and integration of necessary personnel due to the COVID-19 pandemic or other reasons, it could impede our ability to finish development of, file for marketing approval for, and potentially commercialize Zimura in line with our expectations.

In addition to our employees, we rely on consultants and advisors, including scientific, technical and clinical advisors, to assist us in formulating our research and development, manufacturing, commercialization and lifecycle management 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. Many consultants and advisors, especially those with specialized medical or clinical knowledge, are in high demand and we may not be able to obtain or retain their services for any number of reasons, which could limit our ability to pursue our strategy.

As a result of the COVID-19 pandemic, our company has been working remotely since March 2020 and we expect to work mostly remotely for the near future. Our ability to continue to work remotely and when the conditions are appropriate, transition effectively to working in our offices, may affect our operations and the success of our company going forward.

In March 2020, we instituted a company-wide working from home policy, which has remained in effect. Our working from home policy may negatively impact productivity or disrupt our business, the magnitude of which will depend, in part, on the length of this remote working arrangement and other limitations on our ability to conduct our business in the ordinary course. We are planning for a gradual return to working in our offices and expect to work mostly remotely for the near future. We will closely follow the guidance from federal and state authorities, including the Centers for Disease Control and Prevention, the New York State Department of Health and the New Jersey Department of Health, in deciding how and when to transition back to working in our offices. We expect the transition to working in our offices to occur in stages, which will depend on, among other factors, the local COVID-19 and public safety situation and the degree to which our employees have received vaccines. If and when we transition back to working at company sites, there may be an increased risk to our employees and contractors, including as a result of a subsequent wave of the COVID-19 pandemic. If any of them contracts COVID-19 as a result of or while conducting services for us, we may be subject to workers compensation or other claims. Because of our small size and the importance of our employees and contractors to the success of our company, their exposure to the COVID-19 pandemic may adversely affect our ability to carry on our operations.

If we fail to establish and maintain effective internal control over financial reporting, our ability to accurately report our financial results could be adversely affected.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements would not be prevented or detected on a timely basis. If any material weakness in our internal control over financial reporting is discovered or occurs in the future, our financial statements may contain material misstatements and we could be required to restate our financial results. As previously disclosed, in 2015 our management concluded that we experienced a material weakness in internal controls that required us to restate the relevant financial statements and we took steps that year to address the deficiency and prevent similar deficiencies in the future. Although we have remediated this deficiency in internal control over financial reporting, we cannot be certain that the remedial measures that we took in the past or other measures we take in the future, especially in light of the decrease in staffing in our accounting and finance areas following our reduction in force during 2017, will ensure that we maintain adequate controls over our financial reporting going forward and, accordingly, additional material weaknesses could occur or be identified. The COVID-19 pandemic may also affect the effectiveness of our internal controls. Any future material weaknesses or combination of deficiencies could materially and adversely affect our ability to provide timely and accurate financial information and investors' confidence in our internal controls and our company, which could cause our stock price to decline.

Risks Related to Regulatory Approval and Marketing of our Product Candidates and Other Legal Compliance Matters

Even if we complete the necessary preclinical studies and clinical trials, the marketing approval process is expensive, time-consuming and uncertain and may prevent us from obtaining approvals for the commercialization of some or all of our product candidates. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue would be materially impaired.

Our product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, recordkeeping, labeling, storage, advertising, promotion,

sale and distribution and import and export, are subject to comprehensive regulation by the FDA, the EMA and comparable regulatory agencies in other countries.

In general, the FDA and similar regulatory authorities outside the United States require two adequate and well-controlled clinical trials demonstrating safety and effectiveness for marketing approval for an ophthalmic pharmaceutical product. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. We have only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely upon third-party CROs to assist us in this process. Securing marketing approval requires obtaining positive safety and efficacy data from required clinical trials, as well as the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product's manufacturing processes to, and inspection of manufacturing facilities by, the relevant regulatory authorities. The FDA or other regulatory authorities may determine that a product candidate that we may develop is not effective, is only moderately effective or has undesirable or unintended side effects, toxicities or other characteristics that preclude our obtaining marketing approval or prevent or limit commercial use.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved and information concerning similar product candidates as our product candidates. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional nonclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

Marketing approval of novel product candidates, for example aptamers such as Zimura, manufactured using specialized manufacturing processes, can be more expensive and take longer than for other, more well-known or extensively studied pharmaceutical or biopharmaceutical products, due to regulatory agencies' lack of experience with them. We believe that the FDA has only granted marketing approval for one aptamer product to date. This lack of experience may lengthen the regulatory review process, require us to conduct additional nonclinical studies or clinical trials, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of these product candidates or lead to significant post-approval limitations or restrictions.

Accordingly, if we or our collaborators experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for such product candidate may be harmed and our ability to generate revenues would be materially impaired.

Although we have obtained agreement with the FDA on a SPA for GATHER2, a SPA does not guarantee marketing approval of, or any other particular outcome from, regulatory review.

In July 2021, the FDA agreed to a SPA for GATHER2. Under the SPA procedure, the FDA provides a clinical trial sponsor with an official evaluation and written guidance on the design of a proposed protocol intended to form the basis for an NDA. A SPA agreement indicates concurrence by the FDA with the adequacy and acceptability of specific critical elements of the overall protocol design for a clinical trial intended to support a future marketing application, but it does not indicate FDA concurrence on every protocol detail. A SPA agreement also does not ensure the receipt of marketing approval or that the approval process will be faster than conventional procedures. A determination regarding marketing approval is addressed during the review of a submitted NDA and depends on efficacy and safety results and an evaluation of the overall benefits and risks of treatment after review of the data from the development program in its totality.

Even after the FDA agrees to the design, execution, and analysis proposed in a protocol reviewed under the SPA process, the FDA may revoke or alter its agreement if a substantial scientific issue essential to determining the safety or effectiveness of the drug has been identified after the testing has begun. A SPA agreement may also be changed through written agreement between the sponsor and the FDA. A revocation or alteration in our existing SPA could delay or prevent approval of our planned NDA for Zimura. In addition, any significant change to the protocol for a clinical trial subject to a SPA would require prior FDA approval, which could delay implementation of such a change and the conduct of the related clinical trial. The FDA retains significant discretion in interpreting the terms of the SPA agreement and the data and results from any study that is the subject of the SPA agreement.

Failure to obtain marketing approval in foreign jurisdictions would prevent our product candidates from being marketed in such jurisdictions. The approval requirements in foreign jurisdictions may differ significantly from those in the United States.

In order to market and sell our product candidates in the European Union and many other jurisdictions, we or our third-party commercialization partners must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional nonclinical or clinical testing. For example, although we have obtained a SPA from the FDA for the GATHER2 trial, the EMA or other regulatory authorities may not agree with the overall protocol design for the GATHER2 trial. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be sold in that country. We or our third-party commercialization partners may not obtain marketing and/or reimbursement approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We and our third-party commercialization partners may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our products in any market. If our third-party commercial partners fail to obtain marketing approval in certain jurisdictions, it may diminish the value of our product candidate to them and cause them to terminate their relationship with us.

In June 2016, the electorate in the United Kingdom, or UK, voted in favor of leaving the European Union, commonly referred to as “Brexit”. Following protracted negotiations, the UK left the European Union on January 31, 2020 and European Union rules and regulations ceased to apply to the UK starting on January 1, 2021. In December 2020, the UK government and the European Union agreed on a long-term trade agreement to govern economic relations going forward. Since the existing regulatory framework for pharmaceutical products in the UK is derived from European Union directives and regulations, Brexit could materially impact the future regulatory regime for pharmaceutical products in the UK, which remains uncertain. We are continuing to analyze how Brexit and the trade agreement will affect the future regulatory regime for pharmaceutical products in the United Kingdom. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, would prevent us from commercializing our product candidates in the United Kingdom and/or the European Union and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom and/or European Union for our product candidates, which could significantly and materially harm our business.

A fast track designation or grant of priority review status by the FDA may not actually lead to a faster development or regulatory review or approval process. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program or for other reasons.

The FDA may designate a product for fast track review if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and if the product demonstrates the potential to address unmet medical needs for such a disease or condition. For fast track products, sponsors may have greater interactions with the FDA and the FDA may initiate

review of sections of a fast track product's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a fast track product may be effective. The sponsor must also provide, and the FDA must approve, a schedule for the submission of the remaining information and the sponsor must pay applicable user fees. However, the FDA's time period goal for reviewing a fast track application does not begin until the last section of the application is submitted. In addition, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process or for other reasons.

In April 2020, the FDA granted fast track designation to Zimura for the treatment of GA secondary to dry AMD. Even though Zimura has received fast track designation, we must continue to follow the requirements of the program in order to maintain the fast track designation, and even if we maintain the designation, we may not ultimately experience a faster development process, review or approval compared to conventional FDA procedures. The FDA's grant of fast track designation to Zimura for the treatment of GA secondary to dry AMD does not imply that the FDA will grant fast track designation to Zimura for another indication, such as intermediate AMD or STGD1, or that the FDA will grant fast track designation for any of our other product candidates, if we choose to apply for fast track designation.

A breakthrough therapy designation by the FDA for our product candidates may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood that our product candidates would receive marketing approval.

In 2012, Congress enacted the Food and Drug Administration Safety and Innovation Act, or FDASIA. This law established a new regulatory scheme allowing for expedited review of products designated as "breakthrough therapies." A product may be designated as a breakthrough therapy if it is intended, either alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product 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 FDA may take certain actions with respect to breakthrough therapies, including holding meetings with the sponsor throughout the development process; providing timely advice to the product sponsor regarding development and approval; involving more senior staff in the review process; assigning a cross-disciplinary project lead for the review team; and taking other steps to help design the clinical trials in an efficient manner.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead decide not to make such designation. In any event, the receipt of a breakthrough therapy designation for a product candidate may not result in a faster development process, review or approval compared to drugs considered for approval under conventional FDA procedures and does not ensure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the products no longer meet the conditions for qualification or that the time period for FDA review or approval will not be shortened.

We currently do not have orphan drug designations or orphan drug exclusivity for any product candidate. If our competitors are able to obtain orphan drug exclusivity for products that constitute the same or similar drug and treat the same indications as our product candidates, we may not be able to have our product candidates approved by the applicable regulatory authority for a significant period of time.

Regulatory authorities in some jurisdictions, including the United States and the European Union, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a product candidate as an orphan drug if it is intended to treat a rare disease or condition, which is generally defined as having a patient population of fewer than 200,000 individuals in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the European Union, the EMA's Committee for Orphan Medicinal Products grants orphan drug designation to promote the development of products that are intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting not more than 5 in 10,000

persons in the European Union and that there exists no satisfactory method of diagnosis, prevention or treatment of the condition in question that has been authorized in the European Community or, if such method exists, that the medicinal product will be of significant benefit to those affected by that condition.

If we request orphan drug designation for any of our product candidates in one or more indications, there can be no assurances that the FDA or the European Commission will grant any of our product candidates such designation. Additionally, the designation of any of our product candidates as an orphan product does not guarantee that any regulatory agency will accelerate regulatory review of, or ultimately approve, that product candidate, nor does it limit the ability of any regulatory agency to grant orphan drug designation to product candidates of other companies that treat the same indications as our product candidates prior to our product candidates receiving exclusive marketing approval.

Generally, if a product candidate with an orphan drug designation receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the FDA or the European Commission, as the case may be, during that marketing exclusivity period from approving another marketing application for a product that constitutes the same or similar drug treating the same indication, except in limited circumstances. If another sponsor receives such approval before we do, regardless of our orphan drug designation, we may be precluded from receiving marketing approval for our product candidate during the applicable exclusivity period. The applicable period is seven years in the United States and 10 years in the European Union. The exclusivity period in the United States can be extended by six months if the sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. In the European Union, the exclusivity period can be extended by two years following the completion of an agreed pediatric investigation plan. The exclusivity period in the European Union can be reduced to six years if a product no longer meets the criteria for orphan drug designation or if the product is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be revoked, or a competing sponsor may be allowed on the market, if any regulatory agency determines that the request for designation was materially defective or if the sponsor having orphan drug exclusivity is unable to assure sufficient quantity of the product to meet the needs of patients with the rare disease or condition.

Even if we obtain orphan drug exclusivity for a product candidate, that exclusivity may not effectively protect the product candidate from competition because a competing sponsor's drug could nevertheless be approved for the same condition if certain requirements are met. In the United States, even after an orphan drug is approved, the FDA may subsequently approve another drug for the same condition if the FDA concludes that the later drug is not the same drug or is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. In particular, the concept of what constitutes the "same drug" for purposes of orphan drug exclusivity remains in flux in the context of gene therapies, and the FDA has issued draft guidance suggesting that it would not consider two gene therapy products to be different drugs solely based on minor differences in the transgenes or vectors. In the European Union, marketing authorization may be granted to a similar medicinal product for the same orphan indication if:

- the second applicant can establish in its application that its medicinal product, although similar to the orphan medicinal product already authorized, is safer, more effective or otherwise clinically superior;
- the holder of the marketing authorization for the original orphan medicinal product consents to a second orphan medicinal product application; or
- the holder of the marketing authorization for the original orphan medicinal product cannot supply sufficient quantities of the orphan medicinal product.

Any product candidate for which we obtain marketing approval could be subject to post-marketing restrictions or withdrawal from the market and we or our third-party commercialization partners may be subject to penalties if we or our third-party commercialization partners or our or their manufacturers fail to comply with regulatory requirements or if we or our third-party commercialization partners or our or their manufacturers experience unanticipated problems with our products, when and if any of them are approved.

Any product candidate for which we or our commercialization partners obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, advertising and promotional

activities for such product, will be subject to the continued requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to manufacturing, quality control and quality assurance, tracking of complaints and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or may be subject to significant conditions of approval or contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the medicine, including the possible requirement to implement a risk evaluation and mitigation strategy.

The FDA and other agencies, including the Department of Justice, or the DOJ, closely regulate and monitor the pre- and post-approval marketing and promotion of products to ensure that they are marketed and distributed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA and DOJ impose stringent restrictions on manufacturers' communications regarding preapproval promotion and off-label use and if we engage in inappropriate pre-approval promotion or if we do not market our products for their approved indications, we may be subject to enforcement action. Over the past few years, there has been increasing enforcement activity from the FDA targeting preapproval promotion. Violations of the FDCA and other statutes, including the False Claims Act, relating to the promotion and advertising of prescription drugs may lead to investigations and enforcement actions alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

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

- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on distribution or use of a product;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters or untitled letters;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- damage to relationships with any potential collaborators;
- unfavorable press coverage and damage to our reputation;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure;
- injunctions or the imposition of civil or criminal penalties; and
- litigation.

Non-compliance with European Union requirements regarding safety monitoring or pharmacovigilance, and with any applicable requirements related to the development of products for the pediatric population, can also result in significant penalties.

Our and our potential commercialization partners' relationships with healthcare professionals, patients and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us and our commercialization partners to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers and third-party payors play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our future arrangements with healthcare

providers and third-party payors may expose us and our commercialization partners to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we and our commercialization partners market, sell and distribute any products for which we or they obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation or arranging of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;
- the federal False Claims Act imposes criminal and civil penalties, including through civil whistleblower or *qui tam* actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, false or fraudulent claims for payment by a federal healthcare program or making a false statement or record material to payment of a false claim or avoiding, decreasing or concealing an obligation to pay money to the federal government, with potential liability including mandatory treble damages and significant per-claim penalties, currently set at a minimum of \$11,803 and a maximum of \$23,607 per false claim;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements in connection with the delivery of or payment for benefits, items or services involving a healthcare benefit program;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information, and providing notifications of the breach of such information, by covered entities and certain business partners;
- the federal Physician Payments Sunshine Act requires certain manufacturers of drugs, medical devices and biological products covered by federal healthcare benefit programs to report payments and other transfers of value to physicians and teaching hospitals; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws and transparency statutes, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by governmental and non-governmental third-party payors, including private insurers.

Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures and may require the licensing or listing of pharmaceutical sales representatives. State and foreign laws, such as the GDPR, also govern the privacy and security of health information in some circumstances, many of which differ from HIPAA and each other in significant ways, thus complicating compliance efforts.

If our operations are found to be in violation of any of the laws described above or any governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our financial results. These risks are becoming more important for our operations as Zimura advances in clinical development and as we prepare for potential commercialization. We are working to develop and implement a corporate compliance program to ensure that we will market and sell any future products that we successfully develop in compliance with all applicable laws and regulations, but we cannot guarantee that any such program will protect us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such 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 significant fines or other sanctions.

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 authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our or our commercialization partners' operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us or them, we or they may be subject to significant civil, criminal and administrative penalties, including damages, fines, imprisonment, exclusion of products from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our or their operations. If any of the physicians or other healthcare providers or entities with whom we are doing business or expect to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs, and as a result, our relationships with those healthcare providers or third parties may be adversely affected and our business and reputation may suffer.

Current and future legislation may increase the difficulty and costs for us and any future collaborators to obtain reimbursement for any of our product candidates that may receive marketing approval and our ability to generate revenue will be materially impaired.

In the United States and foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval. We expect that current laws, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we, or any collaborators, may receive for any approved products. If reimbursement of our products is unavailable or limited in scope, our business could be materially harmed.

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the ACA. Since enactment of the ACA, there have been, and continue to be, numerous legal challenges and Congressional actions to repeal and replace provisions of the law. For example, with enactment of the Tax Cuts and Jobs Act of 2017, which was signed by President Trump on December 22, 2017, Congress repealed the "individual mandate." The repeal of this provision, which requires most Americans to carry a minimal level of health insurance, became effective in 2019. Further, on December 14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the ACA is an essential and inseparable feature of the ACA, and therefore because the mandate was repealed as part of the Tax Cuts and Jobs Act, the remaining provisions of the ACA are invalid as well. The U.S. Supreme Court reversed this decision and dismissed the case on standing grounds. Litigation and legislation over the ACA may continue, with unpredictable and uncertain results.

The Trump Administration also took executive actions to undermine or delay implementation of the ACA, including directing federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the ACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. In January 2021, however, President Biden issued a new Executive Order which directs federal agencies to reconsider rules and other policies that limit Americans' access to health care, and consider actions that will protect and strengthen that access. Under this Order, federal agencies are directed to re-examine: policies that undermine protections for people with pre-existing conditions, including complications related to COVID-19; demonstrations and waivers under Medicaid and the ACA that may reduce coverage or undermine the programs, including work requirements; policies that undermine the Health Insurance Marketplace or other markets for health insurance; policies that make it more difficult to enroll in Medicaid and the ACA; and policies that reduce affordability of coverage or financial assistance, including for dependents.

Current and future legislative efforts may limit the prices for our products, if and when they are licensed for marketing, which could materially impact our ability to generate revenues.

The containment of healthcare costs also has become a priority of federal, state and foreign governments and the prices of pharmaceutical products have been a focus in this effort. Governments have shown

significant interest in implementing cost-containment programs, including rebate programs, price controls, restrictions on reimbursement and requirements for substitution of generic products. Efforts to control drug pricing have garnered bipartisan support in U.S. Congress. To that end, the Trump Administration published final rules that would allow states or certain other non-federal government entities to submit importation program proposals to the FDA for review and approval. Applicants would be required to demonstrate their importation plans pose no additional risk to public health and safety and will result in significant cost savings for consumers. Earlier, the FDA had issued draft guidance that would allow manufacturers to import their own FDA-approved drugs that are authorized for sale in other countries (multi-market approved products). Further, President Trump issued five executive orders intended to lower the costs of prescription drug products. Several of these orders are reflected in recently promulgated regulations, and one of these regulations is currently subject to a nationwide preliminary injunction.

In September 2021, the Biden Administration released its blueprint for curbing prescription drug prices, including plans to allow Medicare to directly negotiate drug prices with manufacturers, establishing a ceiling for the launch prices of all branded, biologic, and certain generic drugs under Medicare Part D by referencing the average price of these drugs in other developed countries, and seeking to limit Medicare Part D and public option drug prices through a tax penalty on manufacturers for increases in the cost of drugs and biologics above the general inflation rate. Elements of this proposed plan are currently being debated in the U.S. Congress. The American Rescue Plan Act of 2021, a comprehensive COVID-19 relief law enacted under the Biden administration, includes a number of healthcare-related provisions, such as support to rural health care providers, increased tax subsidies for health insurance purchased through insurance exchange marketplaces, financial incentives to states to expand Medicaid programs and elimination of the Medicaid drug rebate cap effective in 2024. The Biden Administration has also frozen certain of the previous administration's measures to reform drug prices, pending further review. It remains to be seen how the Biden Administration will address this issue but, under Medicare Part D, the new administration may seek to establish a ceiling for the launch prices of all branded, biologic, and certain generic drugs by referencing the average price of these drugs in other developed countries. At the same time, the administration may seek to limit Medicare Part D and public option drug prices through a tax penalty on manufacturers for increases in the cost of drugs and biologics above the general inflation rate. The Biden Administration has agreed to delay for a year the implementation of one of former President Trump's signature drug pricing policies, from January 2022 to 2023. The policy at issue would have prevented drug makers and middlemen from negotiating rebates on prescription drugs.

At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, additional regulation of pharmacy benefit managers, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional health care authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other health care programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing. 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 product candidates or additional pricing pressures.

Finally, outside the United States, in some nations, including those of the EU, the pricing of prescription pharmaceuticals is subject to governmental control and access. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we or our collaborators may be required to conduct a clinical trial that compares the cost-effectiveness of our product to other available therapies. If pricing for our products, if approved and licensed, is set at unsatisfactory levels, our business could be materially harmed.

Reporting and payment obligations under the Medicaid Drug Rebate Program and other governmental drug pricing programs are complex and may involve subjective decisions. Any failure to comply with those obligations could subject us to penalties and sanctions.

As a condition of reimbursement by various federal and state health insurance programs, pharmaceutical companies are required to calculate and report certain pricing information to federal and state agencies. The

regulations governing the calculations, price reporting and payment obligations are complex and subject to interpretation by various government and regulatory agencies, as well as the courts. Reasonable assumptions have been made where there is lack of regulations or clear guidance and such assumptions involve subjective decisions and estimates. Pharmaceutical companies are required to report any revisions to our calculation, price reporting and payment obligations previously reported or paid. Such revisions could affect liability to federal and state payers and also adversely impact reported financial results of operations in the period of such restatement.

Uncertainty exists as new laws, regulations, judicial decisions, or new interpretations of existing laws, or regulations related to our calculations, price reporting or payments obligations increases the chances of a legal challenge, restatement or investigation. If a company becomes subject to investigations, restatements, or other inquiries concerning compliance with price reporting laws and regulations, it could be required to pay or be subject to additional reimbursements, penalties, sanctions or fines, which could have a material adverse effect on the business, financial condition and results of operations. In addition, it is possible that future healthcare reform measures could be adopted, which could result in increased pressure on pricing and reimbursement of products and thus have an adverse impact on financial position or business operations.

Further, state Medicaid programs may be slow to invoice pharmaceutical companies for calculated rebates resulting in a lag between the time a sale is recorded and the time the rebate is paid. This results in a company having to carry a liability on its consolidated balance sheets for the estimate of rebate claims expected for Medicaid patients. If actual claims are higher than current estimates, the company's financial position and results of operations could be adversely affected.

In addition to retroactive rebates and the potential for 340B Program refunds, if a pharmaceutical firm is found to have knowingly submitted any false price information related to the Medicaid Drug Rebate Program to CMS, it may be liable for civil monetary penalties. Such failure could also be grounds for CMS to terminate the Medicaid drug rebate agreement, pursuant to which companies participate in the Medicaid program. In the event that CMS terminates a rebate agreement, federal payments may not be available under government programs, including Medicaid or Medicare Part B, for covered outpatient drugs.

Additionally, if a pharmaceutical company overcharges the government in connection with the FSS program or Tricare Retail Pharmacy Program, whether due to a misstated federal ceiling price or otherwise, it is required to refund the difference to the government. Failure to make necessary disclosures and/or to identify contract overcharges can result in allegations against a company under the FCA and other laws and regulations. Unexpected refunds to the government, and responding to a government investigation or enforcement action, would be expensive and time-consuming, and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Our collaborators are also subject to similar requirements outside of the U.S. and thus the attendant risks and uncertainties. If our collaborators suffer material and adverse effects from such risks and uncertainties, our rights and benefits for our licensed products could be negatively impacted, which could have a material and adverse impact on our revenues.

Our operations may be dependent on the normal function of the FDA, the SEC and other government agencies. The inability of those agencies to obtain necessary funding and other effects from the political process could prevent those agencies from performing normal functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new product applications such as INDs, new drug applications and biologics license applications can be affected by a variety of factors, including government funding levels, ability to hire and retain key personnel and to accept the payment of user fees, and statutory, regulatory, and policy changes. Government funding of the FDA, the SEC and other government agencies on which our operations rely is subject to the political process, which is fluid and unpredictable. For example, over the past decade, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical employees and stop critical activities. Additionally, the COVID-19 pandemic has caused many regulatory agencies, including the FDA, to reduce staff availability and operations. We may face impediments to scheduling or conducting regulatory meetings, inspections and approvals due to measures intended to limit in-person interactions. If a prolonged government restriction

or shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, in our operations as a public company, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

We are subject to U.S. and foreign anti-corruption and anti-money laundering laws with respect to our operations and non-compliance with such laws can subject us to criminal and/or civil liability and harm our business.

We are subject to the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. International Travel Act of 1961, the USA PATRIOT Act, and possibly other state and national anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, third-party intermediaries, joint venture partners and collaborators from authorizing, promising, offering, or providing, directly or indirectly, improper payments or benefits to recipients in the public or private sector. We have relationships with certain officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations, including a number of public hospitals that are our clinical trial sites. In addition, we may engage third party intermediaries to promote our clinical research activities abroad and/or to obtain necessary permits, licenses, and other regulatory approvals. We can be held liable for the corrupt or other illegal activities of these third-party intermediaries, our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize or have actual knowledge of such activities.

Noncompliance with anti-corruption and anti-money laundering laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, suspension and/or debarment from contracting with certain persons or governmental programs, the loss of export privileges, reputational harm, adverse media coverage, and other collateral consequences. If any subpoenas, investigations, or other enforcement actions are launched, or governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, results of operations and financial condition could be materially harmed. In addition, responding to any action will likely result in a materially significant diversion of management's attention and resources and significant defense and compliance costs and other professional fees. In certain cases, enforcement authorities may even cause us to appoint an independent compliance monitor which can result in added costs and administrative burdens.

If we or our third-party manufacturers 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 and our third-party manufacturers are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. From time to time and in the future, our operations may involve the use of hazardous and flammable materials, including chemicals and biological materials, and produce hazardous waste products. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our or our contractors' use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources and any coverage provided by our insurance. 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 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. We expect the Biden Administration to pass additional such laws and regulations.

Further, with respect to the operations of our third-party contract manufacturers, it is possible that if they fail to operate in compliance with applicable environmental, health and safety laws and regulations or properly dispose of wastes associated with our product candidates or products, we could be held liable for any resulting damages, suffer reputational harm or experience a disruption in the manufacture and supply of our product candidates or products.

Risks Related to Our Common Stock

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove members of our board of directors and management.

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

- provide for a classified board of directors such that only one of three classes of directors is elected each year;
- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- limit the manner in which stockholders can remove directors from our board of directors;
- provide for advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call stockholder meetings;
- authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a “poison pill” that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and
- require the approval of the holders of at least 75% of the votes that all our stockholders would be entitled to cast to amend or repeal certain provisions of our certificate of incorporation or by-laws.

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

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

Our stock price may be volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. The stock market in general, and the market for smaller pharmaceutical and biotechnology companies in particular, have experienced extreme volatility that has often been unrelated to the operating performance of particular companies, including as a result of short selling by institutional and retail investors. As a result of this volatility, our stockholders may not be able to sell their

shares of common stock at or above the price at which they purchased their shares. The market price for our common stock may be influenced by many factors, including:

- results of research, preclinical development activities and clinical trials for our product candidates and the timing of the receipt of such results;
- results of regulatory interactions and review for our product candidates;
- the success of products or technologies that compete with our product candidates, including results of clinical trials of product candidates of our competitors. For example, in September 2021, Apellis announced top-line data from its Phase 3 trials for GA, and the price of our common stock was affected following the release of those results. Any subsequent developments from Apellis or other competitors may have a significant impact on our stock price;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- the level of expenses related to any of our product candidates or development programs;
- variations in our financial results or those of companies that are perceived to be similar to us;
- the recruitment or departure of key personnel;
- the results of our efforts to in-license or acquire the rights to other product candidates and technologies for the treatment of retinal diseases, including sustained release delivery technologies for Zimura;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- relevant scientific and medical developments;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions, such as those caused by the COVID-19 pandemic;
- political, social, regulatory or legal developments in the United States and other countries; and
- the other factors described in this “Risk Factors” section.

In addition, the COVID-19 pandemic has caused significant disruptions in the financial markets, and may continue to cause such disruptions, and has also impacted, and may continue to impact, the volatility of our stock price and trading in our stock. Following periods of volatility in the market price of a company’s stock, securities class-action litigation has often been instituted against that company. For example, we and certain of our current and former executive officers were named as defendants in a purported class action lawsuit and a related shareholder derivative action following our announcement in December 2016 of the initial, top-line results from the first two of our Phase 3 Fovista trials for the treatment of wet AMD, which caused our stock price to decline significantly. See “*Risks Related to Our Business Plan, Financial Position and Need for Additional Capital — We and certain of our current and former executive officers were named as defendants in lawsuits that could result in substantial costs and divert management’s attention. We are in the process of settling those lawsuits but the settlements are not yet final.*” These proceedings and other similar litigation, if instituted against us, could cause us to incur substantial costs to defend such claims and divert management’s attention and resources, which could seriously harm our business, and cause additional volatility in the price of our common stock.

If a significant portion of our total outstanding shares are sold into the market, the market price of our common stock could drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. For example, we issued 8,649,453 shares of our common stock to funds affiliated with Vivo Capital, LLC and Samsara BioCapital, LP in a private placement in June 2020. In accordance with our obligations under a stock purchase agreement executed in

connection with the private placement, we have filed a registration statement on Form S-3 with the Securities and Exchange Commission for the purposes of registering for resale these shares, which has been declared effective by the SEC, pursuant to which such shares can be freely sold and traded. If the holders of a significant number of shares our common stock sell, or the market perceives that these holders will sell, the shares currently held by them, the price of our common stock may decline.

Moreover, we have filed, and expect to continue to file, registration statements on Form S-8 registering all shares of common stock that we may issue under our equity compensation plans. Once registered on Form S-8, shares underlying these equity awards can be freely sold in the public market upon issuance, subject to volume, notice and manner of sale limitations applicable to affiliates.

The ownership percentage of our stockholders may be diluted in the future, which could dilute the voting power or reduce the value of our outstanding shares of common stock.

As with any publicly traded company, the ownership percentage of our stockholders may be diluted in the future because of equity issuances for acquisitions, capital markets transactions, business development transactions or otherwise, including equity awards that we intend to continue to grant to our directors, officers and employees pursuant to our equity compensation plans. Our employees are also entitled, subject to certain conditions, to purchase our common stock at a discount pursuant to our Employee Stock Purchase Plan.

In addition, the pre-funded warrants that we issued in connection with our December 2019 and June 2020 public offerings are exercisable at any time, and any exercise of such warrants will increase the number of shares of our outstanding common stock, which may dilute the ownership percentage or voting power of our stockholders. To date, pre-funded warrants representing approximately 2.5 million shares of common stock have been exercised and as of September 30, 2021, pre-funded warrants representing 3,164,280 shares of common stock remain outstanding.

Also, our certificate of incorporation authorizes us to issue, without the approval of our shareholders, one or more classes or series of preferred stock having such designation, powers, preferences and relative, participating, optional and other special rights, including preferences over our common stock with respect to dividends and distributions, as our board of directors generally may determine. The terms of one or more classes or series of preferred stock could dilute the voting power or reduce the value of our common stock. Similarly, the repurchase or redemption rights or liquidation preferences we could assign to holders of preferred stock could affect the residual value of our common stock.

For more information about the dilutive effects of financing or business development transactions we may undertake, see the risk factor above, *“Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.”*

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

As a public company, we incur and will continue to incur significant legal, accounting and other expenses. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of The Nasdaq Global Select Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations have increased our legal and financial compliance costs and have made some activities more time-consuming and costly.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we are required to furnish with our periodic Exchange Act reports a report by our management on our internal control over financial reporting. To achieve compliance with Section 404, we must document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources and engage outside consultants to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate

through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. There is a risk that our internal control over financial reporting may, in the future, be found to be ineffective under Section 404. Our identification of one or more material weaknesses could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

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

We have never declared or paid cash dividends on our common stock. We currently intend to retain all of our future earnings, if any, to finance the growth of our business. In addition, the terms of any future debt agreements that we enter into may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be our stockholders' sole source of gain for the foreseeable future.

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of \$125.0 million of shares of our common stock in this offering will be approximately \$117.1 million, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise in full their option to purchase additional shares, we estimate that the net proceeds from this offering will be approximately \$134.7 million.

We plan to use the net proceeds from this offering to fund (a) preparation for potential commercial launch of Zimura, including continued investment in manufacturing capabilities; (b) initiation of a Phase 3 clinical trial evaluating Zimura for patients with intermediate AMD; (c) additional investment in sustained release delivery technologies for Zimura and other lifecycle improvement programs; and (d) 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. We have not determined the exact amounts we plan to spend on any of the items listed above or the timing of these expenditures. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the actual net proceeds from this offering, the progress of our development efforts, the status of and results from clinical trials and other research and development activities, as well as any collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

As of September 30, 2021, we had cash, cash equivalents and available for sale securities of approximately \$242 million. This cash balance is preliminary financial data based on preliminary unaudited information currently available to us as of the date of this prospectus supplement, has been prepared by management, and is inherently uncertain and subject to revision in connection with our closing procedures and finalization of our financial statements for the three and nine-month periods ended September 30, 2021.

Based upon our current operating plan, we estimate that the net proceeds from this offering, together with our existing cash, cash equivalents and available for sale securities, will enable us to fund our operating expenses and capital expenditure requirements as currently planned, excluding any potential approval or sales milestones payable to Archemix Corp. and any potential expenses for actual commercial launch of Zimura, such as associated sales force expenses, through at least mid-2024. This estimate is based on our current business plan, which includes the continuation of our ongoing clinical development programs for Zimura in GA and STGD1 and the initiation of an intermediate AMD clinical trial, preparation and potential filing of a new drug application and a marketing authorization application for Zimura in GA secondary to AMD, continuing preparations for potential commercial launch of Zimura in GA secondary to AMD, investing in sustained release delivery technologies for Zimura, and the advancement of our IC-500 development program. This estimate does not reflect any additional expenditures related to potentially studying Zimura in other indications outside GA, STGDI and intermediate AMD, or resulting from the potential in-licensing or acquisition of additional product candidates or technologies, or any associated development we may pursue. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. See the “Risk Factors” section of this prospectus supplement and the documents incorporated by reference for a discussion of the risks affecting our business that could have an adverse effect on our available capital resources.

We may also use a portion of the net proceeds from this offering for the acquisition or in-license of additional products, product candidates, businesses or technologies, and the research, development and potential commercialization of the same, although we do not currently have any agreements or commitments for any future material acquisition or additional license of any such additional products, product candidates, businesses or technologies. Pending application of the net proceeds as described above, we may temporarily invest the net proceeds in a variety of capital preservation instruments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

CAPITALIZATION

The following table sets forth our cash, cash equivalents and available for sale securities and our capitalization as of June 30, 2021, as follows:

- on an actual basis; and
- on an as adjusted basis to give effect to our issuance and sale of _____ shares of our common stock in this offering at a public offering price of \$ _____ per share of common stock, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read the following table together with our consolidated financial statements and related notes to those statements and the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 and our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2021 and June 30, 2021, which are incorporated by reference into this prospectus supplement.

	As of June 30, 2021	
	Actual	As Adjusted
	(unaudited)	
	(in thousands)	
Cash, cash equivalents and available for sale securities ⁽¹⁾	\$ 159,882	\$ _____
Preferred stock, par value \$0.001 per share; 5,000,000 shares authorized, no shares issued or outstanding, actual and as adjusted	—	—
Common stock, \$0.001 par value: 200,000,000 shares authorized, actual and as adjusted; 90,386,770 shares issued and outstanding, actual; _____ shares issued and outstanding, as adjusted	90	
Additional paid-in capital	761,491	
Accumulated deficit	(622,011)	
Accumulated other comprehensive income	3	_____
Total stockholders’ equity	139,573	_____
Total capitalization	\$ 299,455	\$ _____

- (1) Reflects \$109.5 million available for sale securities. We consider securities with original maturities of greater than 90 days at the date of purchase to be available for sale securities.

The table above excludes:

- 9,232,552 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2021, at a weighted average exercise price of \$9.47 per share;
- 1,952,560 shares of our common stock issuable upon the vesting of restricted stock units outstanding as of June 30, 2021;
- 2,847,420 additional shares of our common stock available for future issuance under our 2013 stock incentive plan as of June 30, 2021;
- 730,800 additional shares of our common stock available for future issuance under our 2019 inducement stock incentive plan as of June 30, 2021, as well as 1,000,000 additional shares of common stock available for future issuance under such plan as a result of an increase approved by our board of directors on September 28, 2021;
- 780,939 additional shares of our common stock available for future issuance under our 2016 employee stock purchase plan as of June 30, 2021; and
- 3,164,280 shares of our common stock reserved for issuance upon the exercise of pre-funded warrants outstanding as of June 30, 2021.

In addition, this table:

- assumes no exercise of the outstanding options and the outstanding pre-funded warrants described above;
- assumes no exercise by the underwriters of their option to purchase up to an additional shares of common stock from us;
- does not give effect to potential future milestone payments payable in the form of shares of our common stock pursuant to (a) the agreement and plan of merger for the Inception 4 acquisition in October 2018 or (b) the exclusive license agreement we entered into in July 2019 with the University of Massachusetts for rights to our miniCEP290 gene therapy program; and
- does not reflect the \$100 million of shares of our common stock that remain available for sale under the ATM Sales Agreement with Cowen pursuant to which we may sell from time to time our common stock through an “at-the-market” equity offering program.

The as adjusted information in the table above will be based on the number of shares of common stock, the offering price and other terms determined at pricing 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 public offering price per share of our common stock and the as adjusted net tangible book value per share of our common stock immediately after this offering.

Our net tangible book value as of June 30, 2021 was \$139.6 million, or \$1.54 per share of our common stock, based on approximately 90,386,770 shares of our common stock then outstanding. Our net tangible book value is the amount of our total tangible assets less our total liabilities. Net tangible book value per share represents our net tangible book value divided by the 90,386,770 shares of our common stock outstanding as of June 30, 2021.

After giving effect to our issuance and sale of _____ shares of our common stock in this offering at a public offering price of \$ _____ per share of common stock, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2021 would have been \$ _____ million, or \$ _____ per share. This represents an immediate increase in as adjusted net tangible book value per share of \$ _____ to existing stockholders and immediate dilution of \$ _____ in as adjusted net tangible book value per share to new investors purchasing common stock in this offering. Dilution per share to new investors is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

Public offering price per share	\$
Net tangible book value per share as of June 30, 2021	\$1.54
Increase in net tangible book value per share attributable to new investors in this offering	<u>\$</u>
As adjusted net tangible book value per share after this offering	<u>\$</u>
Dilution per share to new investors in this offering	<u><u>\$</u></u>

If the underwriters exercise their option to purchase up to _____ additional shares of our common stock in full, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, the as adjusted net tangible book value per share of our common stock immediately after this offering would be \$ _____ per share, representing an increase to existing stockholders of \$ _____ per share, and an immediate dilution of \$ _____ to new investors in this offering.

The table and calculations above are based on 90,386,770 shares of our common stock issued and outstanding as of June 30, 2021, and exclude the following:

- 9,232,552 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2021, at a weighted average exercise price of \$9.47 per share;
- 1,952,560 shares of our common stock issuable upon the vesting of restricted stock units outstanding as of June 30, 2021;
- 2,847,420 additional shares of our common stock available for future issuance under our 2013 stock incentive plan as of June 30, 2021;
- 730,800 additional shares of our common stock available for future issuance under our 2019 inducement stock incentive plan as of June 30, 2021, as well as 1,000,000 additional shares of common stock available for future issuance under such plan as a result of an increase approved by our board of directors on September 28, 2021;
- 780,939 additional shares of our common stock available for future issuance under our 2016 employee stock purchase plan as of June 30, 2021; and
- 3,164,280 shares of our common stock reserved for issuance upon the exercise of pre-funded warrants outstanding as of June 30, 2021.

If any additional shares are issued in connection with the exercise of options or outstanding pre-funded warrants, or pursuant to the ATM Sales Agreement with Cowen, you will experience further

dilution. In addition, to the extent we issue any additional equity securities in connection with future capital raising activities, our then-existing stockholders may experience dilution.

The as adjusted information discussed above will be based on the number of shares of common stock, the offering price and other terms determined at pricing of this offering.

MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR HOLDERS OF OUR COMMON STOCK

The following discussion describes the material U.S. federal income tax consequences of the acquisition, ownership and disposition of our common stock acquired in this offering. This discussion is based on the current provisions of the Internal Revenue Code of 1986, as amended, or the Code, existing and proposed U.S. Treasury regulations promulgated thereunder, and administrative rulings and court decisions in effect as of the date of this prospectus supplement, all of which are subject to change or to differing interpretation at any time, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to holders described in this prospectus supplement. No ruling has been or will be sought from the Internal Revenue Service, or the IRS, with respect to the matters discussed below, and there can be no assurance the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, or that any such contrary position would not be sustained by a court.

We assume in this discussion that the shares of our common stock will be held as capital assets (generally, property held for investment). This discussion does not address all aspects of U.S. federal income taxes, does not discuss the potential application of the Medicare contribution tax on net investment income or the alternative minimum tax and does not address state or local taxes, U.S. federal gift and estate tax laws, except as specifically provided below with respect to non-U.S. holders, or any non-U.S. tax consequences that may be relevant to holders in light of their particular circumstances. This discussion also does not address the special tax rules applicable to particular holders, such as:

- financial institutions;
- brokers or dealers in securities;
- tax-exempt organizations;
- pension plans;
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;
- insurance companies;
- controlled foreign corporations;
- passive foreign investment companies; and
- certain U.S. expatriates.

In addition, this discussion does not address the tax treatment of partnerships or other entities that are pass-through entities for U.S. federal income tax purposes or persons who hold their shares of our common stock through partnerships or such 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 own tax advisor regarding the tax consequences of the ownership and disposition of our common stock through a partnership or other pass-through entity, as applicable.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT, AND IS NOT INTENDED TO BE, LEGAL OR TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE U.S. FEDERAL, STATE, LOCAL, AND NON-U.S. INCOME, ESTATE AND OTHER TAX CONSIDERATIONS OF ACQUIRING, HOLDING AND DISPOSING OF OUR COMMON STOCK.

For purposes of this discussion, a “U.S. holder” means a beneficial owner (other than a partnership or other pass-through entity) of our common stock that is, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

- a trust if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or (2) the trust has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

A “non-U.S. holder” is, for U.S. federal income tax purposes, a beneficial owner of common stock that is not a U.S. holder or a partnership for U.S. federal income tax purposes.

Tax Considerations Applicable to U.S. Holders

Distributions

In the event that we make distributions on our common stock to a U.S. holder, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital that is applied against and reduces, but not below zero, a U.S. holder’s adjusted tax basis in our common stock. Any remaining excess will be treated as gain realized on the sale or exchange of our common stock as described below under the section titled “ — Disposition of Our Common Stock.”

Disposition of Our Common Stock

Upon a sale or other taxable disposition of our common stock, a U.S. holder generally will recognize capital gain or loss in an amount equal to the difference between the amount realized and the U.S. holder’s adjusted tax basis in the common stock. Capital gain or loss will constitute long-term capital gain or loss if the U.S. holder’s holding period for the common stock exceeds one year. The deductibility of capital losses is subject to certain limitations. U.S. holders who recognize losses with respect to a disposition of our common stock should consult their own tax advisors regarding the tax treatment of such losses.

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to payments of dividends on the common stock and to the proceeds of a sale or other disposition of common stock paid by us to a U.S. holder unless such U.S. holder is an exempt recipient, such as a corporation. Backup withholding will apply to those payments if the U.S. holder fails to provide the holder’s taxpayer identification number, or certification of exempt status, or if the holder otherwise fails to comply with applicable requirements to establish an exemption. Backup withholding is not an additional tax. Rather, any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against the U.S. holder’s U.S. federal income tax liability provided the required information is timely furnished to the IRS.

Tax Considerations Applicable To Non-U.S. Holders

Distributions

In the event that we make distributions on our common stock to a non-U.S. holder, those distributions generally will be treated in the manner described in “Tax Considerations Applicable to U.S. Holders — Distributions”.

Any distribution on our common stock that is treated as a dividend paid to a non-U.S. holder that is not effectively connected with the holder’s conduct of a trade or business in the United States will generally be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and the non-U.S. holder’s country of residence. To obtain a reduced rate of withholding under a treaty, a non-U.S. holder generally will be required to provide the applicable withholding agent with a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate form, certifying the non-U.S. holder’s entitlement to benefits under that treaty. Non-U.S. holders are urged to consult with their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty and the specific methods available to them to satisfy these requirements.

We generally are not required to withhold tax on dividends paid to a non-U.S. holder that are effectively connected with the holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base that the holder maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to us or, the applicable withholding agent. In general, such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates applicable to U.S. persons. A corporate non-U.S. holder receiving effectively connected dividends may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate non-U.S. holder's effectively connected earnings and profits, subject to certain adjustments.

See also the sections below titled " — Information Reporting and Backup Withholding" and " — FATCA" for additional withholding rules that may apply to dividends paid to certain non-U.S. financial institutions or non-financial non-U.S. entities.

Disposition of Our Common Stock

Subject to the discussions below under the headings "Information Reporting and Backup Withholding" and "FATCA," a non-U.S. holder generally will not be subject to U.S. federal income or withholding tax on any gain realized upon such non-U.S. holder's sale, exchange or other disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States; in these cases, the non-U.S. holder generally will be taxed on a net income basis at the regular graduated rates and in the manner applicable to U.S. persons (as defined in the Code), and, if the non-U.S. holder is a non-U.S. corporation, the branch profits tax described above under the heading "Distributions" may also apply;
- the non-U.S. holder is a non-resident alien present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements 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; 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 of the common stock, 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 held no more than 5% of our outstanding common stock, directly or indirectly, during the shorter of the five-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 the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Generally, a corporation is a "U.S. real property holding corporation" if the fair market value of its "U.S. real property interests" (as defined in the Code and applicable regulations) 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 believe that we are not currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rule described above.

See the sections titled " — Information Reporting and Backup Withholding" and " — FATCA" below for additional information regarding withholding rules that may apply to proceeds of a disposition of our common stock paid to non-U.S. financial institutions or non-financial non-U.S. entities.

U.S. Federal Estate Tax

Shares of our common stock that are owned or treated as owned by an individual who is a non-U.S. holder (as specially defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

Information Reporting and Backup Withholding

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 generally will have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Generally, a non-U.S. holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable Form W-8), or otherwise meets documentary evidence requirements for establishing that it is a non-U.S. holder, or otherwise establishes an exemption. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above under the heading "Distributions," will generally be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will 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 non-U.S., 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 own 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 timely filed with the IRS.

FATCA

Provisions of the Code commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, generally impose a 30% withholding tax on dividends on, and gross proceeds from the sale or other disposition of, our common stock if paid to a non-U.S. entity unless (1) if the non-U.S. entity is a "non-U.S. financial institution," the non-U.S. entity undertakes certain due diligence, reporting, withholding, and certification obligations, (2) if the non-U.S. entity is not a "non-U.S. financial institution," the non-U.S. entity identifies certain of its U.S. investors, if any, or (3) the non-U.S. entity is otherwise excepted under FATCA.

Withholding under FATCA generally applies to payments of dividends on our common stock. While withholding under FATCA may apply to payments of gross proceeds from a sale or other disposition of our common stock, under proposed U.S. Treasury regulations, withholding on payments of gross proceeds is not required. Although such regulations are not final, applicable withholding agents may rely on the proposed regulations until final regulations are issued.

If withholding under FATCA is required on any payment related to our common stock, investors not otherwise subject to withholding (or that otherwise would be entitled to a reduced rate of withholding) on such payment may be required to seek a refund or credit from the IRS. An intergovernmental agreement between the United States and an applicable non-U.S. country may modify the requirements described in

this section. Non-U.S. holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

The preceding discussion of material U.S. federal tax considerations is for informational purposes only. It is not legal or tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local, and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed changes in applicable laws.

UNDERWRITING

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the common stock being offered. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of our common stock set forth opposite its name below. Morgan Stanley & Co. LLC, Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated and Credit Suisse Securities (USA) LLC are the representatives of the underwriters.

Underwriter	Number of Shares
Morgan Stanley & Co. LLC	
Cowen and Company, LLC	
Stifel, Nicolaus & Company, Incorporated	
Credit Suisse Securities (USA) LLC	
Total	

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent and that the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the option to purchase additional shares described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "ISEE".

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares. We have granted to the underwriters an option to purchase up to _____ additional shares of common stock at the public offering price, less the underwriting discount. This option is exercisable for a period of 30 days. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table above.

Discounts and Commissions. The following table shows the public offering price, underwriting discount and proceeds, before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

We estimate that the total expenses of the offering, excluding underwriting discount, will be approximately \$400,000 and are payable by us.

	Total	
	Without Exercise of Option to Purchase Additional Shares	With Full Exercise of Option to Purchase Additional Shares
Per Share		
Public offering price		
Underwriting discount		
Proceeds, before expenses, to IVERIC bio, Inc.		

The underwriters propose to offer the shares of common stock to the public at the public offering prices set forth on the cover of this prospectus. The underwriters may offer the shares of common stock to securities dealers at the public offering price less a concession not in excess of \$ _____ per share of common stock. If all of the shares are not sold at the public offering price, the underwriters may change the offering prices and other selling terms.

Discretionary Accounts. The underwriters do not intend to confirm sales of the shares to any accounts over which they have discretionary authority.

Stabilization. In connection with this offering, the underwriters may engage in stabilizing transactions, overallotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.
- Overallotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares overallotted by the underwriters is not greater than the number of shares that they may purchase in the overallotment option. In a naked short position, the number of shares involved is greater than the number of shares in the overallotment option. The underwriters may close out any short position by exercising their overallotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of 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 with the price at which they may purchase shares through exercise of the overallotment option. If the underwriters sell more shares than could be covered by exercise of the overallotment option and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market 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 that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

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 our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the Nasdaq Stock Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Passive Market Making. In connection with this offering, underwriters and selling group members may engage in passive market making transactions in our common stock on the Nasdaq Stock Market in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of common stock and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, such bid must then be lowered when specified purchase limits are exceeded.

Lock-Up Agreements. We and certain of our directors and officers have agreed that, without the prior written consent of Morgan Stanley & Co. LLC and Cowen and Company, LLC on behalf of the underwriters, we or such other person, will not, during the period ending 60 days after the date of this prospectus (the "restricted period"):

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of common stock beneficially owned (as such term is used in Rule 13d-3 of the Exchange) or any securities so owned convertible into or exercisable or exchangeable for shares of common stock;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock; or
- publicly disclose the intention to make any such offer, sale, pledge or disposition of shares of common stock;

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, we and each such person agrees that, without the prior written consent of Morgan Stanley & Co. LLC and Cowen and Company, LLC on behalf of the underwriters, we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions described in the immediately preceding paragraph do not apply to us in respect of:

- a) the sale of shares to the underwriters; or
- b) the issuance by us of shares of common stock upon the exercise of an option or warrant, vesting of restricted stock units or the conversion of a security described in this prospectus and outstanding on the date hereof; or
- c) any options and other awards granted under a stock incentive plan or stock purchase plan described in this prospectus (and the issuance of shares upon the exercise thereof); or
- d) the filing by us of any registration statement on Form S-8 or a successor form thereto relating to the shares of common stock granted pursuant to or reserved for issuance under a stock incentive plan or stock purchase plan described in this prospectus; or
- e) the issuance by the Company of shares of common stock upon the Company's achievement of milestones under existing acquisition and licensing agreements, in each case as described in this prospectus; or
- f) the issuance and sale of up to 500,000 shares of common stock at or above the then-prevailing market price in connection with a transaction that includes additional non-dilutive funding for the development of one or more of our product candidates, provided that the recipient of such shares agrees not to sell, transfer or otherwise dispose of such shares for the remainder of the restricted period without the prior written consent of Morgan Stanley & Co. LLC and Cowen and Company, LLC on behalf of the underwriters; or
- g) shares of common stock or other securities issued in connection with a transaction that includes a commercial relationship (including joint ventures, marketing or distribution arrangements, collaboration agreements or intellectual property license agreements) or any acquisition of assets or not less than a majority or controlling portion of the equity of another entity, provided that (x) the aggregate number of shares of common stock issued pursuant to this clause (f) shall not exceed 5.0% of the total number of outstanding shares of common stock and (y) the recipient of any such shares of common stock and securities issued pursuant to this clause (f) during the restricted period shall enter into a lock-up agreement; or
- h) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, provided that (i) such plan does not provide for the transfer of common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by us regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the restricted period.

The restrictions described in the second immediately preceding paragraph do not apply to directors or officers in respect of:

- a) transfers or dispositions of common stock acquired in this offering or acquired in open market transactions after the completion of this offering; or
- b) the exercise of options to purchase shares of common stock granted under a stock incentive plan or stock purchase plan which is described in this prospectus or the exercise of warrants to purchase shares of common stock described in this prospectus and outstanding as of the date of this prospectus, *provided* that the underlying common stock continues to be subject to the restrictions set forth above; or
- c) the exercise of options to purchase shares of common stock granted under a stock incentive plan or stock purchase plan described in this prospectus pursuant to an arrangement whereby we withhold shares issuable pursuant to such option in payment of the exercise price, *provided* that no filing under Section 16(a) of the Exchange Act or other public announcement, reporting a reduction in beneficial ownership of shares of common stock, shall be required or shall be voluntarily made during the restricted period in connection with such option exercise, and *provided* further that the underlying common stock issued upon the exercise of such options continues to be subject to the restrictions set forth above; or
- d) transfers or dispositions to us of common stock or any security convertible into or exercisable or exchangeable for common stock pursuant to any contractual arrangement in effect on the date of the lock-up agreement that provides for the repurchase by us of the director's or officer's common stock or such other securities or in connection with the termination of the director's or officer's employment with us; or
- e) transfers or dispositions of shares of common stock or any security convertible into or exercisable or exchangeable for common stock as a bona fide gift; or
- f) transfers or dispositions of shares of common stock or any security convertible into or exercisable or exchangeable for common stock by will or other testamentary document or by intestacy; or
- g) distributions of shares of common stock or any security convertible into or exercisable or exchangeable for common stock to limited partners, members, stockholders or trust beneficiaries of the directors or officers or to any investment fund or other entity controlled or managed by the directors or officers; or
- h) transfers or dispositions of shares of common stock or any security convertible into or exercisable or exchangeable for common stock to any trust for the direct or indirect benefit of the director or officer or the immediate family of the director or officer in a transaction not involving a disposition for value; or

provided that (i) in the case of any transfer or distribution pursuant to clause (e), (f), (g) or (h), each donee, transferee or distributee shall sign and deliver a lock-up letter substantially in the form of the lock-up agreement and (ii) in the case of any transfer or distribution pursuant to clause (a), (e), (g) or (h), no filing under Section 16(a) of the Exchange Act or other public announcement, reporting a reduction in beneficial ownership of shares of common stock, shall be required or shall be voluntarily made during the restricted period in connection with such transfer or distribution, or

- i) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, provided that (i) such plan does not provide for the transfer of common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by or on behalf of our directors or officers regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the restricted period; or
- j) dispositions, or the withholding of shares of common stock, solely in connection with the payment of taxes due with respect to the vesting of restricted stock unit awards, insofar as such

restricted stock units are outstanding as of the date of this prospectus, provided that to the extent a public announcement or filing under the Exchange Act, if any, is required or voluntarily made by or on behalf of us or the director or officer regarding any such disposition or withholding, such announcement or filing shall include a statement to the effect that the that the transfer relates to the payment of taxes due with respect to the vesting of such restricted stock unit awards; or

k) transfers of shares pursuant to sales in the public market undertaken under a trading plan pursuant to Rule 10b5-1 under the Exchange Act, provided that such trading plan shall have been in effect prior to the date of this prospectus, and provided further that to the extent a public announcement or filing under the Exchange Act, if any, is required or voluntarily made regarding any such sales, such announcement or filing shall include a statement to the effect that sale was made pursuant to a trading plan pursuant to Rule 10b5-1 under the Exchange Act.

For purposes of the lock-up agreements “immediate family” shall mean any relationship by blood, marriage or adoption, not more remote than first cousin.

The representatives, in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice.

Canada. The common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

European Economic Area. In relation to each Member State of the European Economic Area (each a “Relevant State”), no shares of common stock have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares of common stock which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of shares of common stock may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- a) to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;
- b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares of common stock shall require the Company or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation and each person who initially acquires any shares of common stock or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and the Company that it is a “qualified investor” within the meaning of Article 2(e) of the Prospectus Regulation. In the case of any shares of common stock being offered to a financial

intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares of common stock acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares of common stock to the public other than their offer or resale in a Relevant State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters has been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an “offer to the public” in relation to the shares of common stock in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of common stock, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

United Kingdom. No shares of common stock have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares of common stock which has been approved by the Financial Conduct Authority, except that the shares of common stock may be offered to the public in the United Kingdom at any time:

- a) to any legal entity which is a qualified investor as defined under Article 2 of the U.K. Prospectus Regulation;
- b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the U.K. Prospectus Regulation), subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- c) in any other circumstances falling within Section 86 of the FSMA,

provided that no such offer of the shares of common stock shall require the Company or any underwriter to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the U.K. Prospectus Regulation. For the purposes of this provision, the expression an “offer to the public” in relation to the shares of common stock in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of common stock and the expression “U.K. Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018. In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the U.K. Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the “Order,” and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”). In the United Kingdom, any investment or investment activity to which this document relates is only available to, and will be engaged in with, relevant persons. Any person in the UK who is not a relevant person must not act on or rely upon this document or any of its contents.

Switzerland. The securities will not be offered, directly or indirectly, to the public in Switzerland and this prospectus does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

Israel. In the State of Israel this prospectus shall not be regarded as an offer to the public to purchase shares of common stock under the Israeli Securities Law, 5728-1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728-1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions (the “Addressed Investors”); or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728-1968, subject to certain conditions (the “Qualified Investors”). The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The Company has not and will not take any action that

would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728-1968. We have not and will not distribute this prospectus or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728-1968. In particular, we may request, as a condition to be offered common stock, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728-1968 and the regulations promulgated thereunder in connection with the offer to be issued common stock; (iv) that the shares of common stock that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728-1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728-1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number.

Electronic Offer, Sale and Distribution of Shares. 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 than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. Certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees. Cowen and Company, LLC is the sales agent under our sales agreement.

LEGAL MATTERS

The validity of the shares of common stock offered hereby is being passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP. Davis Polk & Wardwell LLP is acting as counsel for the underwriters in connection with this offering.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements, included in our Annual Report on Form [10-K for the fiscal year ended December 31, 2020](#), and the effectiveness of our internal control over financial reporting as of December 31, 2020, as set forth in their reports, which are incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Our consolidated financial statements are incorporated herein by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at www.ivericbio.com. Our website is not a part of this prospectus supplement and is not incorporated by reference in this prospectus supplement.

This prospectus supplement is part of a registration statement we filed with the SEC. This prospectus supplement omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the accompanying prospectus and the registration statement for further information about us and our consolidated subsidiaries and the securities we are offering. Statements in this prospectus supplement concerning any document we filed as an exhibit to the accompany prospectus, the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements. You can obtain a copy of the accompanying prospectus and the registration statement from the SEC's website.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference in this prospectus supplement much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus supplement and the accompanying prospectus is considered to be part of this prospectus supplement. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement or the accompanying prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus supplement incorporates by reference the documents listed below (File No. 001-36080) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement is terminated or completed:

- [Annual Report on Form 10-K for the fiscal year ended December 31, 2020](#), as filed with the SEC on March 4, 2021, including the information specifically incorporated by reference into the Annual Report on Form 10-K from our definitive proxy statement for the 2021 Annual Meeting of Stockholders, as filed with the SEC on April 7, 2021;
- Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2021 and June 30, 2021, as filed with the SEC on [May 5, 2021](#) and [August 4, 2021](#);
- Current Reports on Form [8-K as filed with the SEC on January 11, 2021](#) (excluding Item 2.02), [April 5, 2021](#), [May 5, 2021](#) (excluding Item 2.02 and Exhibit 99.1), [May 21, 2021](#), [June 21, 2021](#), [July 6, 2021](#), [July 12, 2021](#), [July 14, 2021](#), [October 1, 2021](#) and [October 21, 2021](#); and

- The description of our common stock contained in our Registration Statement on Form [8-A filed with the SEC on September 20, 2013](#), as the description therein has been updated and superseded by the description of our capital stock contained in Exhibit 4.1 to our Annual Report on Form [10-K for the fiscal year ended December 31, 2020](#), as filed with the SEC on March 4, 2021, and including any amendments and reports filed for the purpose of updating such description.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

IVERIC bio, Inc.
Five Penn Plaza, Suite 2372
New York, NY 10001
(212) 845-8200

PROSPECTUS

IVERIC bio, Inc.

Debt Securities
Common Stock
Preferred Stock
Warrants
Subscription Rights
Depositary Shares
Units

We may offer and sell securities from time to time in one or more offerings. This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide the specific terms of these securities in supplements to this prospectus. The prospectus supplements will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this document. You should read this prospectus and any applicable prospectus supplement before you invest.

We may offer these securities in amounts, at prices and on terms determined at the time of offering. The securities may be sold directly to you, through agents, or through underwriters and dealers. If agents, underwriters or dealers are used to sell the securities, we will name them and describe their compensation in a prospectus supplement.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "ISEE".

Investing in these securities involves significant risks. See "Risk Factors" included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is October 21, 2021

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the “SEC,” utilizing a “shelf” registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the headings “Where You Can Find More Information” and “Incorporation by Reference” beginning on page 1 of this prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or such accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless the context otherwise indicates, references in this prospectus to “IVERIC,” “we,” “our,” “us” and “the Company” refer, collectively, to IVERIC bio, Inc., a Delaware corporation, and its consolidated subsidiaries.

RISK FACTORS

Investing in our securities involves significant risks. You should carefully consider the risks and uncertainties described in this prospectus and any accompanying prospectus supplement, including the risk factors set forth in our filings with the SEC that are incorporated by reference herein, before making an investment decision pursuant to this prospectus and any accompanying prospectus supplement relating to a specific offering.

Our business, financial condition and results of operations could be materially and adversely affected by any or all of these risks or by additional risks and uncertainties not presently known to us or that we currently deem immaterial that may adversely affect us in the future.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC’s website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at <http://www.ivericbio.com>. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below (File No. 001-36080) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement is terminated or completed:

- [Annual Report on Form 10-K for the fiscal year ended December 31, 2020, as filed with the SEC on March 4, 2021](#), including the information specifically incorporated by reference into the Annual Report on Form 10-K from our [definitive proxy statement for the 2021 Annual Meeting of Stockholders, as filed with the SEC on April 7, 2021](#);
- Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2021 and June 30, 2021, as filed with the SEC on [May 5, 2021](#) and [August 4, 2021](#);
- Current Reports on Form 8-K as filed with the SEC on [January 11, 2021](#) (excluding Item 2.02), [April 5, 2021](#), [May 5, 2021](#) (excluding Item 2.02 and Exhibit 99.1), [May 21, 2021](#), [June 21, 2021](#), [July 6, 2021](#), [July 12, 2021](#), [July 14, 2021](#) and [October 1, 2021](#); and
- The description of our common stock contained in our Registration Statement on [Form 8-A filed with the SEC on September 20, 2013](#), as the description therein has been updated and superseded by the description of our capital stock contained in Exhibit 4.1 to our [Annual Report on Form 10-K for the fiscal year ended December 31, 2020, as filed with the SEC on March 4, 2021](#), and including any amendments and reports filed for the purpose of updating such description.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

IVERIC bio, Inc.
Five Penn Plaza, Suite 2372
New York, NY 10001
(212) 845-8200

FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus include “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. All statements, other than statements of historical facts, contained or incorporated by reference in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “goals,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, but are not limited to, statements about:

- the potential benefits of our business plan and strategy, including our goal to deliver treatment options for all stages of age-related macular degeneration (AMD);
- our expectations regarding the impact of results from GATHER1, our completed Phase 3 clinical trial evaluating Zimura for the treatment of Geographic Atrophy (GA) secondary to AMD, on our business and regulatory strategy, including our plans to pursue development of Zimura in intermediate AMD;
- the timing, costs, conduct and outcome of GATHER2, our ongoing Phase 3 clinical trial evaluating Zimura for the treatment of GA secondary to AMD, including expectations regarding receipt of top-line data from the trial and regarding patient retention, and expectations regarding the potential for Zimura to receive regulatory approval for the treatment of GA secondary to AMD based on the clinical trial results we have received to date and the future results from the GATHER2 clinical trial and any other trials we or a potential collaborator may conduct;
- our plans and expectations for initiating a clinical trial evaluating Zimura for the treatment of intermediate AMD, and for evaluating, obtaining rights to and developing sustained release delivery technologies for Zimura;
- our plans and strategy for the potential commercialization of Zimura, including hiring of medical affairs and commercialization personnel, building a commercialization infrastructure, including sales, marketing and distribution capabilities, and our expectations regarding the market dynamics for treatments for GA and other commercial matters;
- our ability to establish and maintain arrangements and capabilities for the manufacture of Zimura and our other product candidates, including scale up and validation of the manufacturing process for Zimura drug substance and securing the supply of Zimura drug product and the polyethylene glycol (PEG) starting material for our expected needs;
- the timing, costs, conduct and outcome of STAR, our ongoing Phase 2b screening trial evaluating Zimura for the treatment of autosomal recessive Stargardt disease, including expectations regarding the recruitment of additional patients for this trial;
- the actual and expected effects of the COVID-19 pandemic and related response measures on our business and operations, including the timing, costs, conduct and outcome of our research and development programs, our supply chain, the work of our third-party vendors and collaborators, the work and well-being of our employees, and our financial position;
- our expectations related to our use of available cash;
- our estimates regarding expenses, future revenues, capital requirements and needs for, and ability to obtain, additional financing;
- our plans and ability to consummate business development transactions, including potential collaboration opportunities for further development and potential commercialization of Zimura and potential collaboration or out-licensing opportunities for further development of IC-100 and IC-200, and in-licenses or other opportunities to acquire rights to additional product candidates or technologies to treat retinal diseases, including sustained release delivery technologies for Zimura;

- the timing, costs, conduct and outcome of our ongoing and planned clinical trials, including statements regarding the timing of the initiation and completion of, and the receipt of results from, such clinical trials, the costs to conduct such clinical trials, and the impact of the results of such clinical trials on our business strategy;
- the timing, costs, conduct and outcome of our ongoing and planned research and preclinical development activities, including statements regarding the timing of the initiation and completion of, and the receipt of results from, such activities, the costs to conduct such activities, and the impact of the results of such activities on our business strategy;
- the timing of and our ability to submit investigational new drug applications for, and to obtain marketing approval of our product candidates, and the ability of our product candidates to meet existing or future regulatory standards;
- the potential advantages of our product candidates and other technologies that we are pursuing, including our hypotheses regarding complement factor C5 inhibition and HtrA1 inhibition as potentially relevant mechanisms of action to treat GA and other stages of AMD, and of gene therapy, including the use of minigenes;
- our estimates regarding the number of patients affected by the diseases our product candidates and development programs are intended to treat;
- our estimates regarding the potential market opportunity for our product candidates;
- the rate and degree of potential market acceptance and clinical utility of our product candidates, if approved;
- the potential receipt of revenues from future sales of our product candidates, if approved;
- our personnel and human capital resources;
- our intellectual property position;
- the impact of existing and new governmental laws and regulations; and
- our competitive position.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly under the heading “Risk Factors,” under the heading “Summary of Principal Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, the risk factors detailed in Item 1A, “Risk Factors” of Part 1 of our Annual Report on Form 10-K and in our SEC reports filed after this prospectus, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this prospectus, the documents incorporated by reference in this prospectus and the documents that we have filed as exhibits to the registration statement of which this prospectus is part completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus, and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

IVERIC BIO, INC.

We are a science-driven biopharmaceutical company focused on the discovery and development of novel treatments for retinal diseases with significant unmet medical needs. We are committed to having a positive impact on patients' lives by delivering high-quality, safe and effective treatments designed to address debilitating retina diseases including all stages of AMD.

Our principal executive offices are located at Five Penn Plaza, Suite 2372, New York, NY 10001, and our telephone number is (212) 845-8200.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes unless otherwise indicated in the applicable prospectus supplement. General corporate purposes may include research and development costs, costs for potential pre-commercialization or commercialization activities, payment of milestones and other contractual obligations, the acquisition or in-license of other products, product candidates, businesses or technologies, repayment and refinancing of debt, working capital and capital expenditures. We may temporarily invest the net proceeds in a variety of capital preservation instruments, including short-term, investment grade, interest bearing instruments and U.S. government securities, until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of the net proceeds of any offering.

DESCRIPTION OF DEBT SECURITIES

We may offer debt securities, which may be senior or subordinated. We refer to the senior debt securities and the subordinated debt securities collectively as debt securities. The following description summarizes the general terms and provisions of the debt securities that IVERIC bio, Inc. may offer and sell from time to time. We will describe the specific terms of the debt securities and to the extent, if any, to which the general provisions summarized below apply to any series of debt securities in the prospectus supplement relating to the series and any applicable free writing prospectus that we authorize to be delivered. When we refer to “the Company,” “we,” “our,” and “us” in this section, we mean IVERIC bio, Inc. excluding, unless the context otherwise requires or as otherwise expressly stated, our subsidiaries.

We may issue senior debt securities from time to time, in one or more series under a senior indenture to be entered into between us and a senior trustee to be named in a prospectus supplement, which we refer to as the senior trustee. We may issue subordinated debt securities from time to time, in one or more series under a subordinated indenture to be entered into between us and a subordinated trustee to be named in a prospectus supplement, which we refer to as the subordinated trustee. The forms of senior indenture and subordinated indenture are filed as exhibits to the registration statement of which this prospectus forms a part. The senior indenture and the subordinated indenture are referred to individually as an indenture and together as the indentures, and the senior trustee and the subordinated trustee are referred to individually as a trustee and together as the trustees. This section summarizes some of the provisions of the indentures and is qualified in its entirety by the specific text of the indentures, including definitions of terms used in the indentures. Wherever we refer to particular sections of, or defined terms in, the indentures, those sections or defined terms are incorporated by reference in this prospectus or the applicable prospectus supplement. You should review the indentures that are filed as exhibits to the registration statement of which this prospectus forms a part for additional information.

Neither indenture will limit the amount of debt securities that we may issue. The applicable indenture will provide that debt securities may be issued up to an aggregate principal amount authorized from time to time by us and may be payable in any currency or currency unit designated by us or in amounts determined by reference to an index.

General

The senior debt securities will constitute our unsecured and unsubordinated general obligations and will rank equally in right of payment with our other unsecured and unsubordinated obligations. The subordinated debt securities will constitute our unsecured and subordinated general obligations and will be junior in right of payment to our senior indebtedness (including senior debt securities), as described under the heading “ — Certain Terms of the Subordinated Debt Securities — Subordination.” The debt securities will be structurally subordinated to all existing and future indebtedness and other liabilities of our subsidiaries unless such subsidiaries expressly guarantee such debt securities.

The debt securities will be our unsecured obligations. Any secured debt or other secured obligations will be effectively senior to the debt securities to the extent of the value of the assets securing such debt or other obligations. Unless otherwise indicated in the applicable prospectus supplement, the debt securities will not be guaranteed by any of our subsidiaries.

The applicable prospectus supplement and/or free writing prospectus will include any additional or different terms of the debt securities of any series being offered, including the following terms:

- the title and type of the debt securities;
- whether the debt securities will be senior or subordinated debt securities, and, with respect to any subordinated debt securities the terms on which they are subordinated;
- the initial aggregate principal amount of the debt securities;
- the price or prices at which we will sell the debt securities;
- the maturity date or dates of the debt securities and the right, if any, to extend such date or dates;

- the rate or rates, if any, at which the debt securities will bear interest, or the method of determining such rate or rates;
- the date or dates from which such interest will accrue, the interest payment dates on which such interest will be payable or the method of determination of such dates;
- the right, if any, to extend the interest payment periods and the duration of that extension;
- the manner of paying principal and interest and the place or places where principal and interest will be payable;
- the denominations of the debt securities if other than \$1,000 or multiples of \$1,000;
- provisions for a sinking fund, purchase fund or other analogous fund, if any;
- any redemption dates, prices, obligations and restrictions on the debt securities;
- the currency, currencies or currency units in which the debt securities will be denominated and the currency, currencies or currency units in which principal and interest, if any, on the debt securities may be payable;
- any conversion or exchange features of the debt securities;
- whether the debt securities will be subject to the defeasance provisions in the indenture;
- whether the debt securities will be issued in definitive or global form or in definitive form only upon satisfaction of certain conditions;
- whether the debt securities will be guaranteed as to payment or performance;
- any special tax implications of the debt securities;
- any events of default or covenants in addition to or in lieu of those set forth in the indenture; and
- any other material terms of the debt securities.

When we refer to “principal” in this section with reference to the debt securities, we are also referring to “premium, if any.”

We may from time to time, without notice to or the consent of the holders of any series of debt securities, create and issue further debt securities of any such series ranking equally with the debt securities of such series in all respects (or in all respects other than (1) the payment of interest accruing prior to the issue date of such further debt securities or (2) the first payment of interest following the issue date of such further debt securities). Such further debt securities may be consolidated and form a single series with the debt securities of such series and have the same terms as to status, redemption or otherwise as the debt securities of such series.

You may present debt securities for exchange and you may present debt securities for transfer in the manner, at the places and subject to the restrictions set forth in the debt securities and the applicable prospectus supplement. We will provide you those services without charge, although you may have to pay any tax or other governmental charge payable in connection with any exchange or transfer, as set forth in the indenture.

Debt securities may bear interest at a fixed rate or a floating rate. Debt securities bearing no interest or interest at a rate that at the time of issuance is below the prevailing market rate (original issue discount securities) may be sold at a discount below their stated principal amount. U.S. federal income tax considerations applicable to any such discounted debt securities or to certain debt securities issued at par which are treated as having been issued at a discount for U.S. federal income tax purposes will be described in the applicable prospectus supplement.

We may issue debt securities with the principal amount payable on any principal payment date, or the amount of interest payable on any interest payment date, to be determined by reference to one or more currency exchange rates, securities or baskets of securities, commodity prices or indices. You may receive a payment of principal on any principal payment date, or a payment of interest on any interest payment date,

that is greater than or less than the amount of principal or interest otherwise payable on such dates, depending on the value on such dates of the applicable currency, security or basket of securities, commodity or index. Information as to the methods for determining the amount of principal or interest payable on any date, the currencies, securities or baskets of securities, commodities or indices to which the amount payable on such date is linked and certain related tax considerations will be set forth in the applicable prospectus supplement.

Certain Terms of the Senior Debt Securities

Covenants. Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the senior debt securities will not contain any financial or restrictive covenants, including covenants restricting either us or any of our subsidiaries from incurring, issuing, assuming or guaranteeing any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, or restricting either us or any of our subsidiaries from entering into sale and leaseback transactions.

Consolidation, Merger and Sale of Assets. Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to any person, in either case, unless:

- the successor entity, if any, is a U.S. corporation, limited liability company, partnership or trust;
- the successor entity assumes our obligations on the senior debt securities and under the senior indenture;
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and
- we have delivered to the senior trustee an officer's certificate and an opinion of counsel, each stating that the consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture, comply with the senior indenture and all conditions precedent provided for in the senior indenture relating to such transaction have been complied with.

The restrictions described in the bullets above do not apply (1) to our consolidation with or merging into one of our affiliates, if our board of directors determines in good faith that the purpose of the consolidation or merger is principally to change our state of incorporation or our form of organization to another form or (2) if we merge with or into a single direct or indirect wholly-owned subsidiary of ours.

The surviving business entity will succeed to, and be substituted for, us under the senior indenture and the senior debt securities and, except in the case of a lease, we shall be released from all obligations under the senior indenture and the senior debt securities.

No Protection in the Event of a Change in Control. Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the senior debt securities will not contain any provisions that may afford holders of the senior debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Events of Default. Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the following are events of default under the senior indenture with respect to senior debt securities of each series:

- failure to pay interest on any senior debt securities of such series when due and payable, if that default continues for a period of 30 days (or such other period as may be specified for such series);
- failure to pay principal on the senior debt securities of such series when due and payable whether at maturity, upon redemption, by declaration or otherwise (and, if specified for such series, the continuance of such failure for a specified period);
- default in the performance of or breach of any of our covenants or agreements in the senior indenture applicable to senior debt securities of such series, other than a covenant breach which is

specifically dealt with elsewhere in the senior indenture, and that default or breach continues for a period of 90 days after we receive written notice from the trustee or from the holders of 25% or more in aggregate principal amount of the senior debt securities of such series;

- certain events of bankruptcy or insolvency, whether or not voluntary; and
- any other event of default provided for in such series of senior debt securities as may be specified in the applicable prospectus supplement.

Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the default by us under any other debt, including any other series of our debt securities, is not a default under the senior indenture.

If an event of default other than an event of default specified in the fourth bullet point above occurs with respect to a series of senior debt securities and is continuing under the senior indenture, then, and in each such case, either the trustee or the holders of not less than 25% in aggregate principal amount of such series then outstanding under the senior indenture (each such series voting as a separate class) by written notice to us and to the trustee, if such notice is given by the holders, may, and the trustee at the request of such holders shall, declare the principal amount of and accrued interest on such series of senior debt securities to be immediately due and payable, and upon this declaration, the same shall become immediately due and payable.

If an event of default specified in the fourth bullet point above occurs and is continuing, the entire principal amount of and accrued interest on each series of senior debt securities then outstanding shall automatically become immediately due and payable.

Unless otherwise specified in the prospectus supplement relating to a series of senior debt securities originally issued at a discount, the amount due upon acceleration shall include only the original issue price of the senior debt securities, the amount of original issue discount accrued to the date of acceleration and accrued interest, if any.

Upon certain conditions, declarations of acceleration may be rescinded and annulled and past defaults may be waived by the holders of a majority in aggregate principal amount of all the senior debt securities of such series affected by the default, each series voting as a separate class. Furthermore, subject to various provisions in the senior indenture, the holders of a majority in aggregate principal amount of a series of senior debt securities, by notice to the trustee, may waive a continuing default or event of default with respect to such senior debt securities and its consequences, except a default in the payment of principal of or interest on such senior debt securities (other than any such default in payment resulting solely from an acceleration of the senior debt securities) or in respect of a covenant or provision of the senior indenture which cannot be modified or amended without the consent of the holders of each such senior debt security. Upon any such waiver, such default shall cease to exist, and any event of default with respect to such senior debt securities shall be deemed to have been cured, for every purpose of the senior indenture; but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto.

The holders of a majority in aggregate principal amount of a series of senior debt securities may direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to such senior debt securities. However, the trustee may refuse to follow any direction that conflicts with law or the senior indenture, that may involve the trustee in personal liability or that the trustee determines in good faith may be unduly prejudicial to the rights of holders of such series of senior debt securities not joining in the giving of such direction and may take any other action it deems proper that is not inconsistent with any such direction received from holders of such series of senior debt securities. A holder may not pursue any remedy with respect to the senior indenture or any series of senior debt securities unless:

- the holder gives the trustee written notice of a continuing event of default;
- the holders of at least 25% in aggregate principal amount of such series of senior debt securities make a written request to the trustee to pursue the remedy in respect of such event of default;
- the requesting holder or holders offer the trustee indemnity satisfactory to the trustee against any costs, liability or expense;

- the trustee does not comply with the request within 60 days after receipt of the request and the offer of indemnity; and
- during such 60-day period, the holders of a majority in aggregate principal amount of such series of senior debt securities do not give the trustee a direction that is inconsistent with the request.

These limitations, however, do not apply to the right of any holder of a senior debt security of any affected series to receive payment of the principal of and interest on such senior debt security in accordance with the terms of such debt security, or to bring suit for the enforcement of any such payment in accordance with the terms of such debt security, on or after the due date for the senior debt securities, which right shall not be impaired or affected without the consent of the holder.

The senior indenture requires certain of our officers to certify, on or before a fixed date in each year in which any senior debt security is outstanding, as to their knowledge of our compliance with all covenants, agreements and conditions under the senior indenture.

Satisfaction and Discharge. We can satisfy and discharge our obligations to holders of any series of debt securities if:

- we have paid or caused to be paid the principal of and interest on all senior debt securities of such series (with certain limited exceptions) when due and payable; or
- we deliver to the senior trustee for cancellation all senior debt securities of such series theretofore authenticated under the senior indenture (with certain limited exceptions); or
- all senior debt securities of such series have become due and payable or will become due and payable within one year (or are to be called for redemption within one year under arrangements satisfactory to the senior trustee) and we deposit in trust an amount of cash or a combination of cash and U.S. government or U.S. government agency obligations (or in the case of senior debt securities denominated in a foreign currency, foreign government securities or foreign government agency securities) sufficient to make interest, principal and any other payments on the debt securities of that series on their various due dates;

and if, in any such case, we also pay or cause to be paid all other sums payable under the senior indenture, as and when the same shall be due and payable and we deliver to the senior trustee an officer's certificate and an opinion of counsel, each stating that these conditions have been satisfied.

Under current U.S. federal income tax law, the deposit and our legal release from the debt securities would be treated as though we took back your debt securities and gave you your share of the cash and debt securities or bonds deposited in trust. In that event, you could recognize gain or loss on the debt securities you give back to us. Purchasers of the debt securities should consult their own advisers with respect to the tax consequences to them of such deposit and discharge, including the applicability and effect of tax laws other than the U.S. federal income tax law.

Defeasance. Unless the applicable prospectus supplement provides otherwise, the following discussion of legal defeasance and covenant defeasance will apply to any series of debt securities issued under the indentures.

Legal Defeasance. We can legally release ourselves from any payment or other obligations on the debt securities of any series (called "legal defeasance") if certain conditions are met, including the following:

- We deposit in trust for your benefit and the benefit of all other direct holders of the debt securities of the same series cash or a combination of cash and U.S. government or U.S. government agency obligations (or, in the case of senior debt securities denominated in a foreign currency, foreign government or foreign government agency obligations) that will generate enough cash to make interest, principal and any other payments on the debt securities of that series on their various due dates.
- There is a change in current U.S. federal income tax law or an IRS ruling that lets us make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and instead repaid the debt securities ourselves when due. Under current U.S. federal

income tax law, the deposit and our legal release from the debt securities would be treated as though we took back your debt securities and gave you your share of the cash and debt securities or bonds deposited in trust. In that event, you could recognize gain or loss on the debt securities you give back to us.

- We deliver to the trustee a legal opinion of our counsel confirming the tax law change or ruling described above.

If we accomplish legal defeasance, as described above, you would have to rely solely on the trust deposit for repayment of the debt securities. You could not look to us for repayment in the event of any shortfall.

Covenant Defeasance. Without any change in current U.S. federal tax law, we can make the same type of deposit described above and be released from some of the covenants in the debt securities (called “covenant defeasance”). In that event, you would lose the protection of those covenants but would gain the protection of having money and securities set aside in trust to repay the debt securities. In order to achieve covenant defeasance, we must do the following (among other things):

- deposit in trust for your benefit and the benefit of all other direct holders of the debt securities of the same series cash or a combination of cash and U.S. government or U.S. government agency obligations (or, in the case of senior debt securities denominated in a foreign currency, foreign government or foreign government agency obligations) that will generate enough cash to make interest, principal and any other payments on the debt securities of that series on their various due dates.
- deliver to the trustee a legal opinion of our counsel confirming that under current U.S. federal income tax law we may make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and instead repaid the debt securities ourselves when due.

If we accomplish covenant defeasance, you could still look to us for repayment of the debt securities if there were a shortfall in the trust deposit. In fact, if one of the events of default occurred (such as our bankruptcy) and the debt securities become immediately due and payable, there may be such a shortfall. Depending on the events causing the default, you may not be able to obtain payment of the shortfall.

Modification and Waiver. We and the trustee may amend or supplement the senior indenture or the senior debt securities of any series without the consent of any holder:

- to convey, transfer, assign, mortgage or pledge any assets as security for the senior debt securities of one or more series;
- to evidence the succession of a corporation, limited liability company, partnership or trust to us, and the assumption by such successor of our covenants, agreements and obligations under the senior indenture or to otherwise comply with the covenant relating to mergers, consolidations and sales of assets;
- to comply with the requirements of the SEC in order to effect or maintain the qualification of the senior indenture under the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act”);
- to add to our covenants such new covenants, restrictions, conditions or provisions for the protection of the holders, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default;
- to cure any ambiguity, defect or inconsistency in the senior indenture or in any supplemental indenture or to conform the senior indenture or the senior debt securities to the description of senior debt securities of such series set forth in this prospectus or any applicable prospectus supplement;
- to provide for or add guarantors with respect to the senior debt securities of any series;
- to establish the form or forms or terms of the senior debt securities as permitted by the senior indenture;

- to evidence and provide for the acceptance of appointment under the senior indenture by a successor trustee, or to make such changes as shall be necessary to provide for or facilitate the administration of the trusts in the senior indenture by more than one trustee;
- to add to, change or eliminate any of the provisions of the senior indenture in respect of one or more series of senior debt securities, provided that any such addition, change or elimination shall (a) neither (1) apply to any senior debt security of any series created prior to the execution of such supplemental indenture and entitled to the benefit of such provision nor (2) modify the rights of the holder of any such senior debt security with respect to such provision or (b) become effective only when there is no senior debt security described in clause (a)(1) outstanding;
- to make any change to the senior debt securities of any series so long as no senior debt securities of such series are outstanding; or
- to make any change that does not adversely affect the rights of any holder in any material respect.

Other amendments and modifications of the senior indenture or the senior debt securities issued may be made, and our compliance with any provision of the senior indenture with respect to any series of senior debt securities may be waived, with the consent of the holders of a majority of the aggregate principal amount of the outstanding senior debt securities of each series affected by the amendment or modification (voting as separate series); provided, however, that each affected holder must consent to any modification, amendment or waiver that:

- extends the final maturity of any senior debt securities of such series;
- reduces the principal amount of any senior debt securities of such series;
- reduces the rate, or extends the time for payment of, interest on any senior debt securities of such series;
- reduces the amount payable upon the redemption of any senior debt securities of such series;
- changes the currency of payment of principal of or interest on any senior debt securities of such series;
- reduces the principal amount of original issue discount securities payable upon acceleration of maturity or the amount provable in bankruptcy;
- waives a continuing default in the payment of principal of or interest on the senior debt securities (other than any such default in payment resulting solely from an acceleration of the senior debt securities);
- changes the provisions relating to the waiver of past defaults or impairs the right of holders to receive payment or to institute suit for the enforcement of any payment or conversion of any senior debt securities of such series on or after the due date therefor;
- modifies any of the provisions of these restrictions on amendments and modifications, except to increase any required percentage or to provide that certain other provisions cannot be modified or waived without the consent of the holder of each senior debt security of such series affected by the modification;
- adversely affects the right to convert or exchange senior debt securities into common stock, other securities or property in accordance with the terms of the senior debt securities; or
- reduces the above-stated percentage of outstanding senior debt securities of such series whose holders must consent to a supplemental indenture or modifies or amends or waives certain provisions of or defaults under the senior indenture.

It shall not be necessary for the holders to approve the particular form of any proposed amendment, supplement or waiver, but it shall be sufficient if the holders' consent approves the substance thereof. After an amendment, supplement or waiver of the senior indenture in accordance with the provisions described in this section becomes effective, the trustee must give to the holders affected thereby certain notice briefly describing the amendment, supplement or waiver. Any failure by the trustee to give such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such amendment, supplemental indenture or waiver.

Notice of Redemption. Notice of any redemption of senior debt securities will be mailed at least 10 days but not more than 60 days before the redemption date to each holder of senior debt securities of a series to be redeemed. Any notice may, at our discretion, be subject to the satisfaction or waiver of one or more conditions precedent. In that case, such notice shall state the nature of such condition precedent. If we elect to redeem a portion but not all of such senior debt securities, the trustee will select the senior debt securities to be redeemed in a method determined manner that complies with applicable legal and stock exchange requirements, if any. Interest on such debt securities or portions of senior debt securities will cease to accrue on and after the date fixed for redemption, unless we default in the payment of such redemption price and accrued interest with respect to any such senior debt security or portion thereof.

If any date of redemption of any senior debt security is not a business day, then payment of principal and interest may be made on the next succeeding business day with the same force and effect as if made on the nominal date of redemption and no interest will accrue for the period after such nominal date.

Conversion Rights. We will describe the terms upon which senior debt securities may be convertible into our common stock or other securities in a prospectus supplement. These terms will include the type of securities the senior debt securities are convertible into, the conversion price or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or the option of the holders, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption of the senior debt securities and any restrictions on conversion. They may also include provisions adjusting the number of shares of our common stock or other securities issuable upon conversion.

No Personal Liability of Incorporators, Stockholders, Officers or Directors. The senior indenture provides that no recourse shall be had under any obligation, covenant or agreement of ours in the senior indenture or any supplemental indenture, or in any of the senior debt securities or because of the creation of any indebtedness represented thereby, against any of our incorporators, stockholders, officers or directors, past, present or future, or of any predecessor or successor entity thereof under any law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise. Each holder, by accepting the senior debt securities, waives and releases all such liability.

Concerning the Trustee. The senior indenture provides that, except during the continuance of an event of default, the trustee will not be liable except for the performance of such duties as are specifically set forth in the senior indenture. If an event of default has occurred and is continuing, the trustee will exercise such rights and powers vested in it under the senior indenture and will use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

The senior indenture and the provisions of the Trust Indenture Act incorporated by reference therein contain limitations on the rights of the trustee thereunder, should it become a creditor of ours or any of our subsidiaries, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claims, as security or otherwise. The trustee is permitted to engage in other transactions, provided that if it acquires any conflicting interest (as defined in the Trust Indenture Act), it must eliminate such conflict or resign.

We may have normal banking relationships with the senior trustee in the ordinary course of business.

Unclaimed Funds. All funds deposited with the trustee or any paying agent for the payment of principal, premium, interest or additional amounts in respect of the senior debt securities that remain unclaimed for two years after the date upon which such amounts became due and payable will be repaid to us. Thereafter, any right of any holder of senior debt securities to such funds shall be enforceable only against us, and the trustee and paying agents will have no liability therefor.

Governing Law. The senior indenture and the senior debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York.

Certain Terms of the Subordinated Debt Securities

Other than the terms of the subordinated indenture and subordinated debt securities relating to subordination or otherwise as described in the prospectus supplement relating to a particular series of

subordinated debt securities, the terms of the subordinated indenture and subordinated debt securities are identical in all material respects to the terms of the senior indenture and senior debt securities.

Additional or different subordination terms may be specified in the prospectus supplement applicable to a particular series.

Subordination. The indebtedness evidenced by the subordinated debt securities is subordinate to the prior payment in full of all of our senior indebtedness, as defined in the subordinated indenture. During the continuance beyond any applicable grace period of any default in the payment of principal, premium, interest or any other payment due on any of our senior indebtedness, we may not make any payment of principal or interest on the subordinated debt securities (except for certain sinking fund payments). In addition, upon any payment or distribution of our assets upon any dissolution, winding-up, liquidation or reorganization, the payment of the principal of and interest on the subordinated debt securities will be subordinated to the extent provided in the subordinated indenture in right of payment to the prior payment in full of all our senior indebtedness. Because of this subordination, if we dissolve or otherwise liquidate, holders of our subordinated debt securities may receive less, ratably, than holders of our senior indebtedness. The subordination provisions do not prevent the occurrence of an event of default under the subordinated indenture.

The term “senior indebtedness” of a person means with respect to such person the principal of, premium, if any, interest on, and any other payment due pursuant to any of the following, whether outstanding on the date of the subordinated indenture or incurred by that person in the future:

- all of the indebtedness of that person for money borrowed;
- all of the indebtedness of that person evidenced by notes, debentures, bonds or other securities sold by that person for money;
- all of the lease obligations that are capitalized on the books of that person in accordance with generally accepted accounting principles;
- all indebtedness of others of the kinds described in the first two bullet points above and all lease obligations of others of the kind described in the third bullet point above that the person, in any manner, assumes or guarantees or that the person in effect guarantees through an agreement to purchase, whether that agreement is contingent or otherwise; and
- all renewals, extensions or refundings of indebtedness of the kinds described in the first, second or fourth bullet point above and all renewals or extensions of leases of the kinds described in the third or fourth bullet point above;

unless, in the case of any particular indebtedness, renewal, extension or refunding, the instrument creating or evidencing it or the assumption or guarantee relating to it expressly provides that such indebtedness, renewal, extension or refunding is not superior in right of payment to the subordinated debt securities. Our senior debt securities constitute senior indebtedness for purposes of the subordinated indenture.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only and therefore is not a complete description of our capital stock. This description is based upon, and is qualified by reference to, our certificate of incorporation, our by-laws and applicable provisions of Delaware corporate law. You should read our certificate of incorporation and by-laws, which are filed as exhibits to the registration statement of which this prospectus forms a part, for the provisions that are important to you.

Our authorized capital stock consists of 200,000,000 shares of our common stock, \$0.001 par value per share, and 5,000,000 shares of our preferred stock, \$0.001 par value per share.

As of October 19, 2021, we had issued and outstanding 104,246,736 shares of our common stock, and no shares of preferred stock were outstanding.

Common Stock

Annual Meeting. Annual meetings of our stockholders are held on the date designated in accordance with our by-laws. Written notice must be mailed to each stockholder entitled to vote not less than ten nor more than 60 days before the date of the meeting. The presence in person or by proxy of the holders of record of a majority of our issued and outstanding shares entitled to vote at such meeting constitutes a quorum for the transaction of business at meetings of the stockholders. Special meetings of the stockholders may be called for any purpose by only the board of directors, the Chairman of the board of directors or the Chief Executive Officer. Except as may be otherwise provided by applicable law, our certificate of incorporation or our by-laws, all elections of directors shall be decided by a plurality of the votes cast by the stockholders entitled to vote on the election, and all other questions shall be decided by the vote of the holders of shares of stock having a majority in voting power of the votes cast by the holders of all of the shares of stock present or represented at the meeting and voting affirmatively or negatively on such matter at a duly held meeting of stockholders at which a quorum is present.

Voting Rights. Each holder of common stock is entitled to one vote for each share held of record on all matters to be voted upon by stockholders.

Dividends. Subject to the rights, powers and preferences of any outstanding preferred stock, and except as provided by law or in our certificate of incorporation, dividends may be declared and paid or set aside for payment on the common stock out of legally available assets or funds when and as declared by the board of directors.

Liquidation and Dissolution. Subject to the rights, powers and preferences of any outstanding preferred stock, in the event of our liquidation or dissolution, our net assets will be distributed pro rata to the holders of our common stock.

Other Rights. Holders of the common stock have no right to:

- convert the stock into any other security;
- have the stock redeemed;
- purchase additional stock; or
- maintain their proportionate ownership interest.

The common stock does not have cumulative voting rights. Holders of shares of the common stock are not required to make additional capital contributions.

Transfer Agent and Registrar. Computershare Trust Company, N.A. is transfer agent and registrar for the common stock.

Preferred Stock

We are authorized to issue “blank check” preferred stock, which may be issued in one or more series upon authorization of our board of directors. Our board of directors is authorized to fix the designations, powers, preferences and the relative, participating, optional or other special rights and any qualifications,

limitations and restrictions of the shares of each series of preferred stock. The authorized shares of our preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. If the approval of our stockholders is not required for the issuance of shares of our preferred stock, our board may determine not to seek stockholder approval. The specific terms of any series of preferred stock offered pursuant to this prospectus will be described in the prospectus supplement relating to that series of preferred stock.

A series of our preferred stock could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt. Our board of directors will make any determination to issue preferred shares based upon its judgment as to the best interests of our stockholders. Our directors, in so acting, could issue preferred stock having terms that could discourage an acquisition attempt through which an acquirer may be able to change the composition of our board of directors, including a tender offer or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which stockholders might receive a premium for their stock over the then-current market price of the stock.

The preferred stock has the terms described below unless otherwise provided in the prospectus supplement relating to a particular series of preferred stock. You should read the prospectus supplement relating to the particular series of preferred stock being offered for specific terms, including:

- the designation and stated value per share of the preferred stock and the number of shares offered;
- the amount of liquidation preference per share;
- the price at which the preferred stock will be issued;
- the dividend rate, or method of calculation of dividends, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will commence to accumulate;
- any redemption or sinking fund provisions;
- if other than the currency of the United States, the currency or currencies including composite currencies in which the preferred stock is denominated and/or in which payments will or may be payable;
- any conversion provisions;
- whether we have elected to offer depositary shares as described under “Description of Depositary Shares;” and
- any other rights, preferences, privileges, limitations and restrictions on the preferred stock.

The preferred stock will, when issued, be fully paid and non-assessable. Unless otherwise specified in the prospectus supplement, each series of preferred stock will rank equally as to dividends and liquidation rights in all respects with each other series of preferred stock. The rights of holders of shares of each series of preferred stock will be subordinate to those of our general creditors.

As described under “Description of Depositary Shares,” we may, at our option, with respect to any series of preferred stock, elect to offer fractional interests in shares of preferred stock, and provide for the issuance of depositary receipts representing depositary shares, each of which will represent a fractional interest in a share of the series of preferred stock. The fractional interest will be specified in the prospectus supplement relating to a particular series of preferred stock.

Rank. Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up of our affairs, rank:

- senior to our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs;
- on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and

- junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.

The term “equity securities” does not include convertible debt securities.

Dividends. Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our board of directors, cash dividends at such rates and on such dates described in the prospectus supplement. Different series of preferred stock may be entitled to dividends at different rates or based on different methods of calculation. The dividend rate may be fixed or variable or both. Dividends will be payable to the holders of record as they appear on our stock books on record dates fixed by our board of directors, as specified in the applicable prospectus supplement.

Dividends on any series of preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement. If our board of directors does not declare a dividend payable on a dividend payment date on any series of noncumulative preferred stock, then the holders of that noncumulative preferred stock will have no right to receive a dividend for that dividend payment date, and we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment dates. Dividends on any series of cumulative preferred stock will accrue from the date we initially issue shares of such series or such other date specified in the applicable prospectus supplement.

No dividends may be declared or paid or funds set apart for the payment of any dividends on any parity securities unless full dividends have been paid or set apart for payment on the preferred stock. If full dividends are not paid, the preferred stock will share dividends pro rata with the parity securities.

No dividends may be declared or paid or funds set apart for the payment of dividends on any junior securities unless full dividends for all dividend periods terminating on or prior to the date of the declaration or payment will have been paid or declared and a sum sufficient for the payment set apart for payment on the preferred stock.

Liquidation Preference. Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, then, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in the prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. Unless otherwise specified in the prospectus supplement, after payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock in the distribution of assets, then the holders of the preferred stock and all other such classes or series of capital stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions to which they would otherwise be entitled.

Upon any such liquidation, dissolution or winding up and if we have made liquidating distributions in full to all holders of preferred stock, we will distribute our remaining assets among the holders of any other classes or series of capital stock ranking junior to the preferred stock according to their respective rights and preferences and, in each case, according to their respective number of shares. For such purposes, our consolidation or merger with or into any other corporation, trust or entity, or the sale, lease or conveyance of all or substantially all of our property or assets will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

Redemption. If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

The prospectus supplement relating to a series of preferred stock that is subject to mandatory redemption will specify the number of shares of preferred stock that shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to all accrued and unpaid dividends thereon to the date of redemption. Unless the shares have a cumulative dividend, such accrued dividends will not include any accumulation in respect of unpaid dividends for prior dividend periods. We may pay the redemption price in cash or other property, as specified in the applicable prospectus supplement. If the redemption price for preferred stock of any series is payable only from the net proceeds of the issuance of shares of our capital stock, the terms of such preferred stock may provide that, if no such shares of our capital stock shall have been issued or to the extent the net proceeds from any issuance are insufficient to pay in full the aggregate redemption price then due, such preferred stock shall automatically and mandatorily be converted into the applicable shares of our capital stock pursuant to conversion provisions specified in the applicable prospectus supplement. Notwithstanding the foregoing, we will not redeem any preferred stock of a series unless:

- if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on the preferred stock for all past dividend periods and the then current dividend period; or
- if such series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends for the then current dividend period.

In addition, we will not acquire any preferred stock of a series unless:

- if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on all outstanding shares of such series of preferred stock for all past dividend periods and the then current dividend period; or
- if that series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends on the preferred stock of such series for the then current dividend period.

However, at any time we may purchase or acquire preferred stock of that series (1) pursuant to a purchase or exchange offer made on the same terms to holders of all outstanding preferred stock of such series or (2) by conversion into or exchange for shares of our capital stock ranking junior to the preferred stock of such series as to dividends and upon liquidation.

If fewer than all of the outstanding shares of preferred stock of any series are to be redeemed, we will determine the number of shares that may be redeemed pro rata from the holders of record of such shares in proportion to the number of such shares held or for which redemption is requested by such holder or by any other equitable manner that we determine. Such determination will reflect adjustments to avoid redemption of fractional shares.

Unless otherwise specified in the prospectus supplement, we will mail notice of redemption at least 10 days but not more than 60 days before the redemption date to each holder of record of preferred stock to be redeemed at the address shown on our stock transfer books. Each notice shall state:

- the redemption date;
- the number of shares and series of preferred stock to be redeemed;
- the redemption price;
- the place or places where certificates for such preferred stock are to be surrendered for payment of the redemption price;
- that dividends on the shares to be redeemed will cease to accrue on such redemption date;
- the date on which the holder's conversion rights, if any, as to such shares shall terminate; and
- the specific number of shares to be redeemed from each such holder if fewer than all the shares of any series are to be redeemed.

If notice of redemption has been given and we have set aside the funds necessary for such redemption in trust for the benefit of the holders of any shares called for redemption, then from and after the redemption date, dividends will cease to accrue on such shares, and all rights of the holders of such shares will terminate, except the right to receive the redemption price.

Voting Rights. Holders of preferred stock will not have any voting rights, except as required by law or as indicated in the applicable prospectus supplement.

Unless otherwise provided for under the terms of any series of preferred stock, no consent or vote of the holders of shares of preferred stock or any series thereof shall be required for any amendment to our certificate of incorporation that would increase the number of authorized shares of preferred stock or the number of authorized shares of any series thereof or decrease the number of authorized shares of preferred stock or the number of authorized shares of any series thereof (but not below the number of authorized shares of preferred stock or such series, as the case may be, then outstanding).

Conversion Rights. The terms and conditions, if any, upon which any series of preferred stock is convertible into our common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

Transfer Agent and Registrar. The transfer agent and registrar for the preferred stock will be set forth in the applicable prospectus supplement.

Provisions of Our Certificate of Incorporation and By-laws and Delaware Law That May Have Anti-Takeover Effects

Certain provisions of our certificate of incorporation and bylaws may have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, control of us. Such provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock and may limit the ability of stockholders to remove current management or directors or approve transactions that stockholders may deem to be in their best interest and, therefore, could adversely affect the price of our common stock.

Staggered Board; Removal of Directors. Our certificate of incorporation and our bylaws divide our board of directors into three classes with staggered three-year terms. In addition, our certificate of incorporation and our bylaws provide that directors may be removed only for cause and only by the affirmative vote of the holders of 75% of our shares of capital stock present in person or by proxy and entitled to vote. Under our certificate of incorporation and bylaws, 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. Furthermore, our certificate of incorporation provides that the authorized number of directors may be changed only by the resolution of our board of directors. The classification of our board of directors and the limitations on the ability of our stockholders to remove directors, change the authorized number of directors and fill vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Stockholder Action; Special Meeting of Stockholders; Advance Notice Requirements for Stockholder Proposals and Director Nominations. Our certificate of incorporation and our bylaws provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our bylaws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by the chairman of our board of directors, our chief executive officer or our board of directors. In addition, our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought

before the meeting by or at the direction of our board of directors, or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions also could discourage a third party from making a tender offer for our common stock, because even if it acquired a majority of our outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

Super-Majority Voting. The General Corporation Law of the State of Delaware, which we refer to as the DGCL, provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation described above.

Authorized but Unissued Shares. Our authorized but unissued shares of our common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of The Nasdaq Global Select Market. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Delaware Business Combination Statute. We are subject to Section 203 of the DGCL ("Section 203"), which prohibits a Delaware corporation from engaging in business combinations with an interested stockholder. An interested stockholder is generally defined as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation or any entity or person affiliated with or controlling or controlled by such entity or person ("interested stockholder"). Section 203 provides that an interested stockholder may not engage in business combinations with the corporation for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that 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 began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combinations to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, lease, transfer, pledge or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

Directors' Liability

Our certificate of incorporation limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty or other duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- for voting or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

Our certificate of incorporation provides that we must indemnify our directors and officers and we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. In addition, we have entered into indemnification agreements with our directors and executive officers. These indemnification agreements may require us, among other things, to indemnify each such director or executive officer, as applicable, for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our directors or executive officers, as applicable.

Certain of our non-employee directors may, through their relationships with their employers, be insured or indemnified against certain liabilities incurred in their capacity as members of our board of directors.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase common stock, preferred stock, depositary shares or debt securities. We may offer warrants separately or together with one or more additional warrants, common stock, preferred stock, depositary shares or debt securities, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the accompanying prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the expiration date of the warrants. The applicable prospectus supplement will also describe the following terms of any warrants:

- the specific designation and aggregate number of, and the offering price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants are to be sold separately or with other securities as parts of units;
- whether the warrants will be issued in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- the designation and terms of any equity securities purchasable upon exercise of the warrants;
- the designation, aggregate principal amount, currency and terms of any debt securities that may be purchased upon exercise of the warrants;
- if applicable, the designation and terms of the preferred stock or depositary shares with which the warrants are issued and the number of warrants issued with each security;
- if applicable, the date from and after which any warrants issued as part of a unit and the related debt securities, preferred stock, depositary shares or common stock will be separately transferable;
- the number of shares of common stock, preferred stock or depositary shares purchasable upon exercise of a warrant and the price at which those shares may be purchased;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the anti-dilution provisions of, and other provisions for changes to or adjustment in the exercise price of, the warrants, if any;
- any redemption or call provisions; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange or exercise of the warrants.

DESCRIPTION OF SUBSCRIPTION RIGHTS

The following description of the subscription rights and terms of the subscription rights agreement is a summary. It summarizes only those aspects of the subscription rights and those portions of the subscription rights agreement which we believe will be most important to your decision to invest in our subscription rights. There may be other provisions in the subscription rights agreement and the subscription certificate relating to the subscription rights which are also important to you. You should read these documents for a full description of the terms of the subscription rights. The forms of the subscription rights agreement and the subscription certificate will be filed or incorporated by reference as exhibits to the registration statement of which this prospectus is a part.

Subscription rights may be issued independently or together with any other security and may or may not be transferable. As part of the rights offering, we may enter into a standby underwriting or other arrangement under which the underwriters or any other person would purchase any securities that are not purchased in such rights offering. If we issue subscription rights, they may be governed by a separate subscription rights agreement that we will sign with a bank or trust company, as rights agent, that will be named in the applicable prospectus supplement. The rights agent will act solely as our agent and will not assume any obligation to any holders of rights certificates or beneficial owners of rights.

In general, a right entitles the holder to purchase for cash a specific number of shares of equity securities at a specified exercise price. The rights are normally issued to stockholders as of a specific record date, may be exercised only for a limited period of time and become void following the expiration of such period. If we determine to issue subscription rights, we will accompany this prospectus with a prospectus supplement that will describe, among other things:

- the record date for stockholders entitled to receive the rights;
- the number of equity securities that may be purchased upon exercise of each right;
- the exercise price of the rights;
- whether the rights are transferable;
- the period during which the rights may be exercised and when they will expire;
- the steps required to exercise the rights;
- the price, if any, for the subscription rights;
- the number of subscription rights issued;
- the terms of the equity securities;
- the extent to which the subscription rights are transferable;
- if applicable, the material terms of any standby underwriting or other arrangement entered into by us in connection with the offering of subscription rights;
- the other terms of the subscription rights, including the terms, procedures and limitations relating to the exercise of the subscription rights;
- whether the rights include “oversubscription rights” so that the holder may purchase more securities if other holders do not purchase their full allotments;
- whether we intend to sell the shares of equity securities that are not purchased in the rights offering to an underwriter or other purchaser under a contractual “standby” commitment or other arrangement; and
- any applicable material United States federal income tax consequences.

If fewer than all of the rights issued in any rights offering are exercised, we may offer any unsubscribed securities directly to persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby arrangements, as described in the applicable prospectus supplement.

DESCRIPTION OF DEPOSITARY SHARES

General

We may, at our option, elect to offer fractional shares of preferred stock, which we call depositary shares, rather than full shares of preferred stock. If we do, we will issue to the public receipts, called depositary receipts, for depositary shares, each of which will represent a fraction, to be described in the applicable prospectus supplement, of a share of a particular series of preferred stock. Unless otherwise provided in the prospectus supplement, each owner of a depositary share will be entitled, in proportion to the applicable fractional interest in a share of preferred stock represented by the depositary share, to all the rights and preferences of the preferred stock represented by the depositary share. Those rights include dividend, voting, redemption, conversion and liquidation rights.

The shares of preferred stock underlying the depositary shares will be deposited with a bank or trust company selected by us to act as depositary under a deposit agreement between us, the depositary and the holders of the depositary receipts. The depositary will be the transfer agent, registrar and dividend disbursing agent for the depositary shares.

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Holders of depositary receipts agree to be bound by the deposit agreement, which requires holders to take certain actions such as filing proof of residence with and paying certain charges to the depositary.

The summary of terms of the depositary shares contained in this prospectus is not a complete description of the terms of the depositary shares. You should refer to the form of the deposit agreement, our certificate of incorporation and the certificate of designation for the applicable series of preferred stock that are, or will be, filed with the SEC.

Dividends and Other Distributions

The depositary will distribute all cash dividends or other cash distributions, if any, received in respect of the preferred stock underlying the depositary shares to the record holders of depositary shares in proportion to the numbers of depositary shares owned by those holders on the relevant record date. The relevant record date for depositary shares will be the same date as the record date for the underlying preferred stock.

If there is a distribution other than in cash, the depositary will distribute property (including securities) received by it to the record holders of depositary shares, unless the depositary determines that it is not feasible to make the distribution. If this occurs, the depositary may, with our approval, adopt another method for the distribution, including selling the property and distributing the net proceeds from the sale to the holders.

Liquidation Preference

If a series of preferred stock underlying the depositary shares has a liquidation preference, in the event of the voluntary or involuntary liquidation, dissolution or winding up of us, holders of depositary shares will be entitled to receive the fraction of the liquidation preference accorded each share of the applicable series of preferred stock, as set forth in the applicable prospectus supplement.

Withdrawal of Stock

Unless the related depositary shares have been previously called for redemption, upon surrender of the depositary receipts at the office of the depositary, the holder of the depositary shares will be entitled to delivery, at the office of the depositary to or upon his or her order, of the number of whole shares of the preferred stock and any money or other property represented by the depositary shares. If the depositary receipts delivered by the holder evidence a number of depositary shares in excess of the number of depositary shares representing the number of whole shares of preferred stock to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of depositary shares. In no event will the depositary deliver fractional shares of preferred stock upon surrender of depositary receipts. Holders of preferred stock thus withdrawn may not thereafter deposit those shares under the deposit agreement or receive depositary receipts evidencing depositary shares therefor.

Redemption of Depositary Shares

Whenever we redeem shares of preferred stock held by the depositary, the depositary will redeem as of the same redemption date the number of depositary shares representing shares of the preferred stock so redeemed, so long as we have paid in full to the depositary the redemption price of the preferred stock to be redeemed plus an amount equal to any accumulated and unpaid dividends on the preferred stock to the date fixed for redemption. The redemption price per depositary share will be equal to the redemption price and any other amounts per share payable on the preferred stock multiplied by the fraction of a share of preferred stock represented by one depositary share. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or pro rata or by any other equitable method as may be determined by the depositary.

After the date fixed for redemption, depositary shares called for redemption will no longer be deemed to be outstanding and all rights of the holders of depositary shares will cease, except the right to receive the monies payable upon redemption and any money or other property to which the holders of the depositary shares were entitled upon redemption upon surrender to the depositary of the depositary receipts evidencing the depositary shares.

Voting the Preferred Stock

Upon receipt of notice of any meeting at which the holders of the preferred stock are entitled to vote, the depositary will mail the information contained in the notice of meeting to the record holders of the depositary receipts relating to that preferred stock. The record date for the depositary receipts relating to the preferred stock will be the same date as the record date for the preferred stock. Each record holder of the depositary shares on the record date will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the number of shares of preferred stock represented by that holder's depositary shares. The depositary will endeavor, insofar as practicable, to vote the number of shares of preferred stock represented by the depositary shares in accordance with those instructions, and we will agree to take all action that may be deemed necessary by the depositary in order to enable the depositary to do so. The depositary will not vote any shares of preferred stock except to the extent it receives specific instructions from the holders of depositary shares representing that number of shares of preferred stock.

Charges of Depositary

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. We will pay the charges due to the depositary in connection with the initial deposit of the preferred stock and any redemption of the preferred stock. Holders of depositary receipts will pay transfer, income and other taxes and governmental charges and such other charges (including those in connection with the receipt and distribution of dividends, the sale or exercise of rights, the withdrawal of the preferred stock and the transferring, splitting or grouping of depositary receipts) as are expressly provided in the deposit agreement to be for their accounts. If these charges have not been paid by the holders of depositary receipts, the depositary may refuse to transfer depositary shares, withhold dividends and distributions and sell the depositary shares evidenced by the depositary receipt.

Amendment and Termination of the Deposit Agreement

The form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement may be amended by agreement between us and the depositary. However, any amendment that materially and adversely alters the rights of the holders of depositary shares, other than fee changes, will not be effective unless the amendment has been approved by the holders of a majority of the outstanding depositary shares affected by the amendment. The deposit agreement may be terminated by the depositary or us only if:

- all outstanding depositary shares have been redeemed; or
- there has been a final distribution of the preferred stock in connection with our dissolution and such distribution has been made to all the holders of depositary shares.

Resignation and Removal of Depositary

The depositary may resign at any time by delivering to us notice of its election to do so, and we may remove the depositary at any time. Any resignation or removal of the depositary will take effect upon our appointment of a successor depositary and its acceptance of such appointment. The successor depositary must be appointed within 60 days after delivery of the notice of resignation or removal and must be a bank or trust company having its principal office in the United States and having the requisite combined capital and surplus as set forth in the applicable agreement.

Notices

The depositary will forward to holders of depositary receipts all notices, reports and other communications, including proxy solicitation materials received from us, that are delivered to the depositary and that we are required to furnish to the holders of the preferred stock. In addition, the depositary will make available for inspection by holders of depositary receipts at the principal office of the depositary, and at such other places as it may from time to time deem advisable, any reports and communications we deliver to the depositary as the holder of preferred stock.

Limitation of Liability

Neither we nor the depositary will be liable if either we or it is prevented or delayed by law or any circumstance beyond its control in performing its obligations. Our obligations and those of the depositary will be limited to performance in good faith of our and their duties thereunder. We and the depositary will not be obligated to prosecute or defend any legal proceeding in respect of any depositary shares or preferred stock unless satisfactory indemnity is furnished. We and the depositary may rely upon written advice of counsel or accountants, on information provided by persons presenting preferred stock for deposit, holders of depositary receipts or other persons believed to be competent to give such information and on documents believed to be genuine and to have been signed or presented by the proper party or parties.

DESCRIPTION OF UNITS

We may issue units consisting of one or more of the other securities described in this prospectus in any combination, as described in the applicable prospectus supplement. We may issue units in one or more series, which will be described in the applicable prospectus supplement. The applicable prospectus supplement will also describe the following terms of any units:

- the designation and the terms of the units and of the securities constituting the units, including whether and under what circumstances the securities comprising the units may be traded separately;
- the identity of any unit agent for the units, if applicable, and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- any additional terms of the governing unit agreement, if applicable;
- any additional provisions for the issuance, payment, settlement, transfer or exchange of the units or of the debt securities, common stock, preferred stock or warrants constituting the unit; and
- any applicable material U.S. federal income tax consequences.

FORMS OF SECURITIES

Each debt security, warrant, subscription right, depositary share and unit will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Unless the applicable prospectus supplement provides otherwise, certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the debt securities, warrants, subscription rights, depositary shares or units represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Global Securities

We may issue the debt securities of a particular series, warrants, subscription rights, depositary shares and units in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a global security may not be transferred except as a whole by and among the depositary for the global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in global securities.

So long as the depositary, or its nominee, is the registered owner of a global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the global security for all purposes under the applicable indenture, warrant agreement, subscription rights agreement, deposit agreement or unit agreement. Except as described below, owners of beneficial interests in a global security will not be entitled to have the securities represented by the global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement, subscription rights agreement, deposit agreement or unit agreement. Accordingly, each person owning a beneficial interest in a global security must rely on the procedures of the depositary for that global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant, agreement, subscription rights agreement, deposit agreement or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement, subscription rights agreement, deposit agreement or unit agreement, the depositary for the global security would authorize the participants holding the relevant beneficial interests to give or take

that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, and interest payments on debt securities, and any payments to holders with respect to warrants, subscription rights, depositary shares or units, represented by a global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the global security. None of us, or any trustee, warrant agent, unit agent or other agent of ours, or any agent of any trustee, warrant agent or unit agent will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a global security, upon receipt of any payment to holders of principal, premium, interest or other distribution of underlying securities or other property on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in "street name," and will be the responsibility of those participants.

If the depositary for any of the securities represented by a global security is at any time unwilling or unable to continue as depositary or ceases to be a clearing agency registered under the Exchange Act, and a successor depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the global security that had been held by the depositary. Any securities issued in definitive form in exchange for a global security will be registered in the name or names that the depositary gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depositary's instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the global security that had been held by the depositary.

PLAN OF DISTRIBUTION

We may sell securities:

- through underwriters;
- through dealers;
- through agents;
- directly to purchasers; or
- through a combination of any of these methods of sale.

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing security holders. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act, and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis.

The distribution of the securities may be effected from time to time in one or more transactions:

- at a fixed price, or prices, which may be changed from time to time;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name of the agent or any underwriters;
- the public offering or purchase price and the proceeds we will receive from the sale of the securities;
- any discounts and commissions to be allowed or re-allowed or paid to the agent or underwriters;
- all other items constituting underwriting compensation;
- any discounts and commissions to be allowed or re-allowed or paid to dealers; and
- any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

If a dealer is utilized in the sale of the securities in respect of which this prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Remarketing firms, agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, and/or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than two scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the second business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than two scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon by Wilmer Cutler Pickering Hale and Dorr LLP.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our [Annual Report on Form 10-K for the year ended December 31, 2020](#), and the effectiveness of our internal control over financial reporting as of December 31, 2020, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

IVERIC bio, Inc.

Common Stock

PROSPECTUS SUPPLEMENT

Book-Running Managers

Morgan Stanley

Cowen

Stifel

Credit Suisse

October , 2021
