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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2015

Or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 001-36080

OPHTHOTECH CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**20-8185347**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
One Penn Plaza, 19th Floor New York, NY	
(Address of principal executive offices)	**10119** (Zip Code)

(212) 845-8200
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.001 par value	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☒ Yes o No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. o Yes ☒ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes o No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ☒ Yes o No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). o Yes ☒ No

As of June 30, 2015, the aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately $1,455.3 million, based on the closing price of the registrant's common stock on June 30, 2015.

The number of shares outstanding of the registrant's class of common stock, as of February 22, 2016: 35,252,261

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report incorporates by reference information from the definitive Proxy Statement for the registrant's 2016 Annual Meeting of Shareholders, which is expected to be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year ended December 31, 2015.

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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this Annual Report on Form 10-K, 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 Annual Report on Form 10-K include, among other things, statements about:

- the timing, costs, conduct and outcome of our Phase 3 clinical trials of Fovista® (pegpleranib) and other clinical trials of Fovista, in each case administered in combination with anti-VEGF drugs for the treatment of wet age-related macular degeneration, or AMD, including statements regarding the timing of the initiation of and completion of enrollment in such trials, the timing and the availability of, and the costs to obtain, initial, top-line results from, and the completion of, such trials and the timing of regulatory filings;
- the timing, costs, conduct and outcome of our clinical trials for Zimura® (avacincaptad pegol) for the treatment of patients with geographic atrophy, or GA, a form of dry AMD and, in combination with anti-VEGF drugs, for the treatment of wet AMD, including statements regarding the timing of the initiation of and completion of enrollment in such trials, and the costs to obtain and timing of receipt of initial results from, and the completion of, such trials;
- the timing, costs, conduct and outcome of our planned preclinical work for an ophthalmic formulation of tivozanib, including statements regarding the timing of the initiation of, and the costs to obtain and timing of receipt of results from, such work;
- the timing of and our ability to obtain marketing approval of Fovista, Zimura and other product candidates we may develop, and the ability of Fovista, Zimura and other product candidates we may develop to meet existing or future regulatory standards;
- our ability to maintain a productive collaborative relationship with Novartis Pharma AG, including our ability to achieve remaining potential milestone payments under our agreement;
- the potential advantages of Fovista and Zimura;
- the rate and degree of potential market acceptance and clinical utility of Fovista and Zimura;
- our estimates regarding the potential market opportunity for Fovista and Zimura;
- the potential receipt of revenues from future sales of Fovista and Zimura;
- our sales, marketing and distribution capabilities and strategy;
- our ability to establish and maintain arrangements for the manufacture of Fovista, Zimura and other product candidates we may develop;
- our ability to in-license or acquire complementary products, product candidates or technologies;
- our intellectual property position;
- our expectations related to our use of available cash;
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;

- 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 our stockholders 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 Annual Report on Form 10-K, particularly in the "Risk Factors" section, 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 Annual Report on Form 10-K and the documents that we have filed as exhibits to this Annual Report on Form 10-K 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 Annual Report on Form 10-K are made as of the date of this Annual Report on Form 10-K, 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.

PART I

Item 1. Business

We are a biopharmaceutical company specializing in the development of novel therapeutics to treat diseases of the back of the eye, with a focus on developing therapeutics for age-related macular degeneration, or AMD. AMD is a disorder of the central portion of the retina, known as the macula, which is responsible for central vision and color perception. There are two forms of AMD, wet AMD and dry AMD. Our most advanced product candidate is Fovista® (pegpleranib), an anti-platelet derived growth factor, or PDGF, aptamer that is in Phase 3 clinical development for use in combination with anti-vascular endothelial growth factor, or VEGF, drugs that represent the current standard of care for the treatment of wet AMD. We have completed one Phase 1 and one Phase 2b clinical trial of Fovista administered in combination with the anti-VEGF drug Lucentis® (ranibizumab), have completed patient enrollment for two Phase 3 clinical trials of Fovista administered in combination with Lucentis and expect to complete enrollment in a third Phase 3 clinical trial evaluating Fovista in combination with Eylea® (aflibercept) or Avastin® (bevacizumab) in 2016. We have completed enrollment in two additional Phase 2a clinical trials of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin), one of which is studying the potential of Fovista to reduce subretinal fibrosis in wet AMD patients and the other of which is investigating the optimized regimen of Fovista in combination with anti-VEGF drugs, as well as the potential of Fovista to reduce the treatment burden for wet AMD patients. We are also developing our product candidate Zimura® (avacincaptad pegol) as a monotherapy for the treatment of patients with geographic atrophy, or GA, a form of dry AMD, as well as in combination with anti-VEGF drugs for the treatment of wet AMD and for the treatment of polypoidal choroidal vasculopathy, a specific type of wet AMD, in patients who do not respond adequately to anti-VEGF monotherapy or for whom anti-VEGF monotherapy fails. We are also investigating the potential of an ophthalmic formulation for tivozanib, a small molecule VEGF tyrosine kinase inhibitor for which we have an option for a license.

Fovista

We are developing our product candidate Fovista to be administered in combination with anti-VEGF drugs for the treatment of wet AMD. Wet AMD is characterized by abnormal new blood vessel formation, referred to as neovascularization, which results in blood vessel leakage and retinal distortion. If untreated, neovascularization in wet AMD patients typically results in formation of a scar,

or fibrosis, under the macular region of the retina. The use of anti-VEGF drugs has significantly improved visual outcomes for wet AMD patients compared to untreated patients newly diagnosed with wet AMD. However, we believe that persistence or growth of neovascularization and the development of fibrosis under the retina are involved in limiting the visual benefit from anti-VEGF monotherapy, and, therefore, a significant unmet medical need remains.

Wet AMD is the leading cause of blindness in people over the age of 55 in the United States and the European Union. The current standard of care for wet AMD is monotherapy administration of drugs that target vascular endothelial growth factor, or VEGF, one of several proteins involved in neovascularization. The anti-VEGF market for the treatment of wet AMD consists of two drugs that are approved for marketing and primarily prescribed for the treatment of wet AMD, Lucentis and Eylea, and a third drug, Avastin, a cancer drug used on an off-label basis. In 2015, annual worldwide sales of Lucentis and Eylea totaled approximately $7.7 billion for multiple retinal disease indications, including wet AMD, macular edema following retinal vein occlusion (also known as RVO), diabetic macular edema (also known as DME) and diabetic retinopathy in patients with DME. This sales number does not include sales of Avastin, which is used off-label to treat wet AMD in the United States and in the European Union. The anti-VEGF market for the treatment of wet AMD in China includes conbercept, sales of which are also not reflected in the sales number above.

We believe that Fovista's mechanism of action, when administered in combination with an anti-VEGF drug, may result in two relevant biological responses: neovascular regression and inhibition of fibrosis under the retina, also known as subretinal fibrosis. Fovista binds to and inhibits a protein known as platelet derived growth factor, or PDGF, causing the stripping of pericytes, which are cells that cover the outside of newly formed blood vessels. After the pericytes are stripped from the new blood vessels, endothelial cells lining the inside of the newly formed blood vessels are left unprotected and are highly vulnerable to the effects of anti-VEGF drugs. Fovista also inhibits migration of other retinal cells attracted by PDGF, such as retinal pigment epithelium, or RPE, cells and glial cells, which play a role in the formation of subretinal fibrosis. We further believe that the administration of Fovista in combination with anti-VEGF drugs in patients with wet AMD may cause regression of neovascularization and may inhibit subretinal fibrosis more effectively than anti-VEGF monotherapy. We believe that Fovista may provide meaningful added benefit in the treatment of wet AMD regardless of which anti-VEGF drug is administered in combination with Fovista.

In 2012, we completed a large Phase 2b clinical trial in newly diagnosed wet AMD patients in which 1.5 mg of Fovista administered in combination with one of the standard of care anti-VEGF drugs, Lucentis, demonstrated statistically significant superiority compared to Lucentis monotherapy based on the primary endpoint of mean change in visual acuity from baseline at 24 weeks. Patients receiving the combination of 1.5 mg of Fovista and Lucentis gained a mean of 10.6 letters from baseline on a standardized chart of vision testing compared to a mean gain of 6.5 letters from baseline for patients receiving Lucentis monotherapy, representing a 62% comparative benefit from baseline. Based on the pre-specified secondary endpoints in our Phase 2b study and on retrospective analyses of commonly evaluated parameters used in wet AMD trials, Fovista combination therapy resulted in improved visual outcome, with more patients experiencing vision gain and fewer patients experiencing vision loss, in a broad range of patient groups in this trial compared to Lucentis monotherapy. Fovista was generally well tolerated in this clinical trial.

Our pivotal Phase 3 clinical program for Fovista consists of three separate Phase 3 clinical trials to evaluate the safety and efficacy of 1.5 mg of Fovista administered in combination with anti-VEGF drugs for the treatment of wet AMD compared to anti-VEGF monotherapy. Two of these trials, referred to as the Fovista Phase 3 Lucentis Trials, are evaluating Fovista in combination with Lucentis compared to Lucentis monotherapy. The third trial, referred to as the Fovista Phase 3 Eylea/Avastin Trial, is evaluating Fovista in combination with Eylea or Avastin compared to Eylea or Avastin monotherapy.

Our development strategy for Fovista is to be agnostic with respect to the choice of the anti-VEGF drug administered in combination with Fovista.

We completed patient enrollment in one of the Fovista Phase 3 Lucentis Trials in May 2015 and in the other Fovista Phase 3 Lucentis Trial in November 2015. The Fovista Phase 3 Lucentis Trials are investigating Fovista in combination with Lucentis compared to Lucentis monotherapy and are identical with respect to the trial design in the first year. Therefore, the databases from both of the Fovista Phase 3 Lucentis Trials will be locked and analyzed together, which will allow for the pooled analysis of certain relevant endpoints in accordance with the statistical analysis plan. We expect initial, top-line data from both of the Fovista Phase 3 Lucentis Trials to be available during the fourth quarter of 2016.

We are continuing to actively enroll patients in the Fovista Phase 3 Eylea/Avastin Trial and expect to complete enrollment in 2016, with initial, top-line data from this trial to be available in 2017 based on current enrollment estimates. This trial is investigating Fovista in combination with either Eylea or Avastin compared to Eylea or Avastin monotherapy. Our Phase 2b trial utilized Lucentis as the only anti-VEGF drug because Eylea was not yet approved and Avastin's non-inferiority status compared to Lucentis was not yet established at the time the Phase 2b clinical trial commenced. Therefore, in order to gain more experience with Fovista when administered in combination with Eylea or Avastin prior to starting a pivotal Phase 3 clinical trial, the Fovista Phase 3 Eylea/Avastin Trial started later (May 2014) than the Fovista Phase 3 Lucentis Trials (August 2013). This time period of approximately nine months allowed us to perform initial preclinical and clinical assessments and ensure compatibility of Eylea or Avastin when administered in combination with Fovista.

Our key objective and plan is to make Fovista commercially available to physicians to treat their patients with wet AMD as quickly as possible, subject to obtaining favorable data from the Phase 3 clinical program. We are continuing to explore various regulatory filing options. We plan to initially submit a New Drug Application, or NDA, to the U.S. Food and Drug Administration, or FDA, for Fovista in combination with Lucentis based upon data from the two Fovista Phase 3 Lucentis Trials and subsequently submit an amendment to the NDA with data from the Fovista Phase 3 Eylea/Avastin Trial, subject to a favorable data outcome from these trials. Alternatively, we may choose to file a supplemental NDA for Fovista in combination with Eylea or Avastin following FDA review of the NDA for Fovista in combination with Lucentis. In addition, we continue to evaluate various filing strategies for marketing authorizations in Europe and other ex-U.S. territories with Novartis AG, or Novartis, our ex-U.S. commercialization partner for Fovista.

In addition to our ongoing Phase 3 clinical program for Fovista, we have initiated additional clinical trials to evaluate the potential additional benefits of Fovista administered in combination with anti-VEGF drugs in wet AMD patients. We refer to these trials collectively as the Fovista Expansion Studies. They include:

- *OPH1005 Fovista Anti-Fibrosis Study.* During the third quarter of 2014, we initiated an open-label Phase 2a clinical trial of 1.5 mg of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin), to study subretinal fibrosis in wet AMD patients. We completed enrollment in this trial in May 2015 with a total of 101 patients enrolled. Patients in this trial are followed over a 24-month period. In late 2015, we presented interim data for two subgroups of patients in this trial. See "—Potentially Expanding the Use of Fovista—Fovista Expansion Studies in Wet AMD" below for a description of the interim data we have presented to date.

- *OPH1006 Fovista Treatment Burden Reduction Study.* During the fourth quarter of 2014, we initiated an open-label Phase 2a clinical trial of 1.5 mg of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin) to investigate the optimized regimen of Fovista administration in combination with anti-VEGF drugs. In addition, this trial may allow us to evaluate the potential of Fovista to reduce the treatment burden for wet AMD patients. We

completed enrollment in this trial in October 2015 with a total of 64 patients enrolled. Patients in this trial are followed over an 18-month period.

- *OPH1007 Fovista in Combination with Avastin Discontinuous Regimen Study.* During the fourth quarter of 2015, we initiated a randomized, double-masked, controlled Phase 2b clinical trial to evaluate the safety and efficacy of a discontinuous, bi-monthly regimen of 1.5 mg of Fovista administered in combination with Avastin during the maintenance phase of wet AMD treatment compared to a discontinuous, bi-monthly regimen of Avastin monotherapy. The maintenance phase for wet AMD treatment generally follows an induction phase, when treatment is administered more frequently over a shorter period of time. We believe that off-label use of Avastin for the treatment of wet AMD has not been extensively studied in randomized, controlled clinical trials, similar to those that have been conducted for approved anti-VEGF drugs.

- *OPH1008 Fovista Imaging Study.* During the fourth quarter of 2015, we initiated an open-label Phase 2a clinical trial to investigate the role of multi-modal imaging in assessing anatomic responses to various wet AMD treatment regimens of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin).

We may in the future seek to pursue additional clinical trials to assess the potential therapeutic benefit of Fovista in wet AMD as well as other ophthalmic conditions.

Zimura

We are developing our product candidate Zimura for the treatment of patients with GA, a form of dry AMD, and in combination with anti-VEGF drugs for the treatment of wet AMD. Zimura is an inhibitor of complement factor C5, which we refer to as C5, a protein that is associated with complement mediated inflammation and cell damage, which we believe may be involved in the development and/or progression of dry and wet AMD.

Dry AMD is typically associated with yellow-white dots or deposits under the retina, known as drusen. Unlike in wet AMD, there is an absence of pathological neovascularization in dry AMD. Significant vision loss results if dry AMD evolves into GA affecting the macula. GA appears as abrupt and deep levels of macular tissue loss and can be a significant cause of loss of central vision, affecting vision in both eyes in most patients. GA results in progressive and chronic degeneration of the retina characterized by variable thinning and dysfunction of retinal tissue.

In addition, dry AMD can also progress to wet AMD. Although dry AMD is the most common form of AMD, there are no therapies approved by the FDA or European Medicines Agency, or EMA, to treat this condition. According to a 2011 publication from AMD Alliance International, approximately 30 million people worldwide have some form of AMD, with dry AMD accounting for 85% to 90% of these cases. A study published in *Ophthalmology* in 2012 analyzing age and gender variations in AMD prevalence estimates that approximately 8 million people worldwide are affected by GA.

Multiple published studies have implicated local inflammation in the pathogenesis of dry AMD. Specifically, these studies suggest that the complement pathway, which consists of a series of proteins involved in the defense against infection and modulates a variety of immune and inflammatory responses, has a central role in dry AMD. The complement system is generally tightly regulated and requires the proper balance of activation and inhibition of proteins to function properly. Poorly regulated or aberrant activation of proteins in the complement pathway without a balanced or proportional inhibition of other proteins may result in the stimulation of inflammation and production of proteins, which eventually lead to damage to normal tissue. We believe that excessive activation of C5, which is one of the complement proteins, and the resulting formation of downstream complement

protein complexes, results in tissue damage that plays an important role in the development of both dry AMD and wet AMD. Our product candidate Zimura is designed to inhibit C5 activation.

We have completed a small, multicenter, uncontrolled, open label Phase 1/2a clinical trial evaluating the safety and tolerability of Zimura administered as a monotherapy to patients with GA. We did not observe any evidence of drug related adverse events in this clinical trial. We observed a relative trend in this clinical trial, favoring the higher of the two dose groups, with respect to the reduction in the mean growth of the GA lesion area, as measured by an independent reading center, at 24 weeks. When a reduced dosing schedule was implemented during the subsequent 24 weeks, weeks 24 through 48, this relative trend in reduced growth in GA lesion area was no longer evident. We believe this apparent reduction of growth in GA lesion area size when Zimura was dosed with greater frequency compared to less frequent dosing in the same group of patients, may suggest a possible drug effect. Data from third party clinical trials of drug candidates targeting the complement pathways have been conflicting. However, there was a suggestion in one trial of the potential to reduce growth of GA lesions in a pronounced fashion where specific biomarkers were present.

We have also completed a multicenter, ascending dose and parallel group open label Phase 1/2a clinical trial evaluating the safety and tolerability of Zimura administered in combination with Lucentis for the treatment of wet AMD. None of the patients in this trial experienced any dose limiting toxicities at any of the dose levels tested and adverse events were primarily ocular adverse events in the study eye which were related to the injection procedure. We performed assessments of visual acuity primarily as safety assessments to detect any decrease in vision associated with the intravitreal drug combination or the injection procedure. In a subgroup of 43 patients who had not previously been treated with anti-VEGF drugs and who received six injections at doses of 0.3 mg, 1.0 mg or 2.0 mg of Zimura administered in combination with Lucentis, we observed a mean increase in visual acuity from baseline at all time points based on the number of letters the patient can read on a standardized chart of vision testing. In this subgroup, 22 patients (51%) gained at least 15 letters, consisting of six patients (46%) in the 0.3 mg dose group, seven patients (47%) in the 1.0 mg dose group and nine patients (60%) in the 2.0 mg dose group.

Currently, we have the following ongoing clinical trials for Zimura:

- *Zimura Phase 2/3 GA Study.* During the fourth quarter of 2015, we initiated a randomized, double-masked, controlled Phase 2/3 clinical trial to evaluate the safety and efficacy of Zimura monotherapy in patients with GA. We plan to enroll approximately 300 patients in the initial stage of the trial. During this stage, patients will be randomized into three groups, and will receive monthly injections of 1.0 mg of Zimura per eye, monthly injections of 2.0 mg of Zimura per eye or monthly sham injections as the control arm. At month 18, we plan to conduct an interim analysis to assess the safety and efficacy of Zimura compared to sham. Upon review of this interim analysis, a determination will be made whether to continue the trial and whether to expand the trial by enrolling additional patients. Patients in the trial will receive monthly injections for 24 months.

- *Zimura Phase 2a Wet AMD Study.* During the fourth quarter of 2015, we initiated an open-label Phase 2a clinical trial to evaluate Zimura's potential role when administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin) for the treatment of wet AMD.

- *Zimura PCV Study.* In late 2014, we commenced a very small, open-label Phase 2 clinical trial investigating Zimura's potential role when administered in combination with anti-VEGF drugs for the treatment of polypoidal choroidal vasculopathy, or PCV, a specific type of wet AMD, in patients who do not respond adequately to treatment with anti-VEGF monotherapy or for whom anti-VEGF monotherapy fails. Our initial, preliminary analysis of the data from this trial has not revealed any safety concerns related to Zimura.

Our Management Team

We are led by a team of experienced pharmaceutical industry executives and recognized experts in retinal disease. Our management team includes our co-founder and Chief Executive Officer, David R. Guyer, M.D., and our co-founder and President, Samir C. Patel, M.D. Dr. Guyer and Dr. Patel were co-founders and senior executives of Eyetech Pharmaceuticals, Inc., which was acquired by OSI Pharmaceuticals, Inc. in 2005. While at Eyetech Pharmaceuticals, Dr. Guyer and Dr. Patel were responsible for the clinical development and commercialization of Macugen (pegaptanib sodium), the first anti-VEGF drug approved for the treatment of wet AMD. While at Eyetech Pharmaceuticals, they also were responsible for the preclinical development of Fovista, the rights to which we subsequently acquired from OSI (Eyetech), Inc. pursuant to a divestiture agreement prior to initiation of any clinical development. We believe that our senior management provides us with significant capabilities in the development and commercialization of novel therapies to treat diseases of the back of the eye.

Our Strategy

Our goal is to become a leading biopharmaceutical company focused on developing and commercializing novel therapeutics to treat diseases of the back of the eye, with a particular focus on developing novel therapeutics for the treatment of AMD. The key elements of our strategy to achieve this goal are:

- *Complete the Phase 3 clinical program evaluating Fovista administered in combination with anti-VEGF drugs for the treatment of wet AMD and, if successful, seek marketing approval for Fovista in this indication.* We are devoting a significant portion of our resources and business efforts to the clinical development and manufacture of Fovista, which we are developing to be used in combination with anti-VEGF drugs for wet AMD. We expect initial, top-line data from both of the Fovista Phase 3 Lucentis Trials to be available during the fourth quarter of 2016, with initial, top-line data from the Fovista Phase 3 Eylea/Avastin Trial to be available in 2017 based on current enrollment estimates. We plan to initially submit an NDA to the FDA for Fovista in combination with Lucentis based upon data from the two Fovista Phase 3 Lucentis Trials and subsequently submit an amendment to the NDA with data from the Fovista Phase 3 Eylea/Avastin Trial, subject to a favorable data outcome from these trials. Alternatively, we may choose to file a supplemental NDA for Fovista in combination with Eylea or Avastin following FDA review of the NDA for Fovista in combination with Lucentis. In addition, we continue to evaluate various filing strategies for marketing authorizations in Europe and other ex-U.S. territories with Novartis, our ex-U.S. commercialization partner for Fovista. In accordance with their protocols, our Phase 3 clinical trials will continue after such submissions.

- *Further evaluate the potential benefit of Fovista in wet AMD, when administered in combination with anti-VEGF drugs.* We have completed patient enrollment in our OPH1005 Fovista Anti-Fibrosis Study and OPH1006 Fovista Treatment Burden Reduction Study, and have initiated our OPH1007 Fovista in Combination with Avastin Discontinuous Regimen Study and OPH1008 Fovista Imaging Study, all as part of our Fovista Expansion Studies. We may also evaluate other ophthalmic conditions for which we believe Fovista treatment may be beneficial.

- *Advance the development of Zimura for the treatment of AMD.* We are developing our product candidate Zimura for the treatment of GA, a form of dry AMD, and, in combination with anti-VEGF drugs for the treatment of wet AMD. Zimura is an inhibitor of complement factor C5, a protein that is associated with complement mediated inflammation and cell damage, which we believe may be involved in the development and/or progression of dry AMD and wet AMD. In furtherance of our Zimura clinical development program, we initiated in late 2015 our Zimura Phase 2/3 GA Study and our Zimura Phase 2a Wet AMD Study and, in late 2014, we initiated our Zimura PCV Study.

- *Maximize commercial potential of Fovista and Zimura.* We have retained commercialization rights to Fovista in the United States and worldwide commercialization rights to Zimura. If either Fovista or Zimura receives marketing approval in the United States, we plan to commercialize such product candidate in the United States with our own specialty sales force. We believe that retinal specialists in the United States, who perform most of the medical procedures involving diseases of the back of the eye, are sufficiently concentrated that we will be able to effectively promote Fovista and Zimura to these specialists with a sales and marketing group of approximately 100 persons. We have entered into an ex-U.S. commercialization agreement with Novartis for commercialization of Fovista outside the United States. We expect to utilize a variety of types of collaboration, distribution and other marketing arrangements with one or more third parties to commercialize Zimura in markets outside the United States.

- *Opportunistically in-license or acquire products, product candidates and technologies.* In addition to expanding our Fovista and Zimura development programs, we are committed to exploring opportunities to address the unmet needs in AMD, as well as potentially other indications in the back of the eye. Our strategy, in general, is to be scientifically driven, to evaluate multiple options with limited upfront payments and to obtain early proof-of-concept validation prior to a larger commitment of capital. We plan to explore opportunities to expand our product pipeline through in-licensing or acquiring the rights to complementary products, product candidates and technologies for the treatment of a range of ophthalmic diseases, principally diseases of the back of the eye. We believe that our focus on diseases of the back of the eye and our experienced management and clinical development teams will make us an attractive collaborator or acquirer for companies seeking to out-license or sell rights to products, product candidates or technologies in our area of focus. We generally expect that we will not engage in internal early stage research and drug discovery and will thus avoid the related costs and risks of these activities. However, we plan to continue to assess opportunities to in-license late-stage preclinical product candidates as well as clinical assets. As an example of this strategy, in November 2014, we entered into an exclusive research and option agreement with AVEO Pharmaceuticals to license tivozanib, a small molecule VEGF tyrosine kinase inhibitor, for the treatment of non-oncologic conditions of the eye. Under the terms of the agreement, we paid AVEO an upfront fee of $0.5 million for exclusive rights to investigate tivozanib's potency and potential as an ocular formulation. If we elect to continue the development of an ocular formulation of tivozanib, we may exercise our option for an exclusive worldwide license (excluding Asia) for the compound for ocular indications upon payment of a license fee and other milestone payments.

Potential for Fovista in Wet AMD

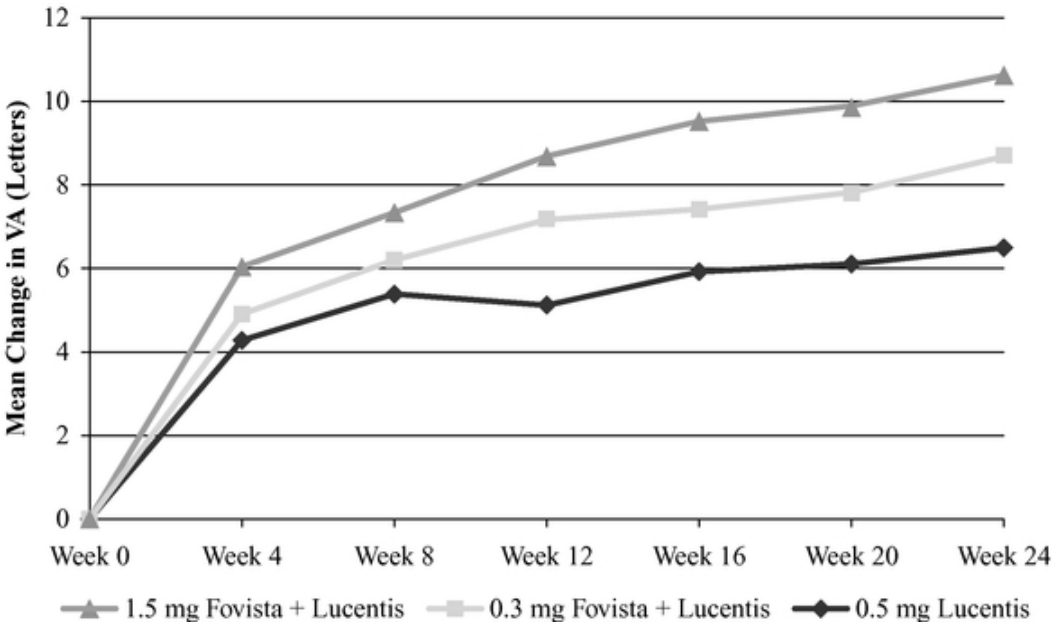
In our completed Phase 2b clinical trial, the combination of 1.5 mg of Fovista and Lucentis demonstrated statistically significant superiority compared to Lucentis monotherapy based on the primary endpoint of mean change in visual acuity from baseline at 24 weeks, providing a 62% comparative benefit from baseline. Our Phase 3 clinical program builds on and incorporates significant aspects from the design of our Phase 2b clinical trial. We intend to seek a broad label with regard to patient and/or lesion characteristics for Fovista for the treatment of patients with wet AMD in combination with anti-VEGF drugs. We believe that Fovista may provide meaningful added benefit in the treatment of wet AMD regardless of which anti-VEGF drug is administered in combination with Fovista. We also believe that Fovista, when administered in combination with anti-VEGF drugs, has the potential to inhibit neovascularization and the formation of subretinal fibrosis, thereby improving longer-term visual outcomes for wet AMD patients.

Visual Acuity Benefit

We completed a large, multicenter, randomized, double-masked, controlled Phase 2b clinical trial in 2012 in which the combination of 1.5 mg of Fovista and the anti-VEGF drug Lucentis achieved statistically significant superiority compared to Lucentis monotherapy based on the primary endpoint of mean change in visual acuity from baseline at 24 weeks. In this trial, patients treated with the combination of 0.3 mg of Fovista and Lucentis showed improvements in visual acuity compared to Lucentis monotherapy, but the combination of 0.3 mg and Lucentis did not achieve statistically significant superiority compared to Lucentis monotherapy based on the primary endpoint of mean change in visual acuity from baseline at 24 weeks.

As described in more detail below under "—Clinical Development of Fovista—Completed Phase 2b Clinical Trial of Fovista Combination Therapy for Wet AMD," the following graph sets forth the mean change in visual acuity from baseline for each treatment group in our Phase 2b clinical trial over the course of the trial:

Mean Change in Visual Acuity (VA) from Baseline Over Time



We observed a visual benefit in patients treated with the combination of 1.5 mg of Fovista and Lucentis early in and sustained over the course of treatment. The relative magnitude of visual benefit increased over the study period. We believe that these results suggest that Fovista may provide benefit to patients when used over time in combination with Lucentis. We also believe that these results are supported by Fovista's proposed mechanism of action, which we believe, when administered in combination with an anti-VEGF drug, may result in two relevant responses: neovascular regression and inhibition of subretinal fibrosis.

In addition, we believe that the relative visual benefit of the combination of 1.5 mg of Fovista and Lucentis compared to the relative visual benefit of the combination of 0.3 mg of Fovista and Lucentis at all time points exhibits a dose-response curve in which the response to treatment increases with higher drug concentrations of Fovista.

In our Phase 2b clinical trial, we observed differences on the secondary endpoint of mean change in visual acuity from baseline at 12 weeks favoring the combination of 1.5 mg of Fovista and Lucentis

compared to Lucentis monotherapy. In addition, we observed differences in other visual outcome secondary endpoints favoring the combination of 1.5 mg of Fovista and Lucentis compared to Lucentis monotherapy. Further, we performed multiple retrospective subgroup analyses of the data from our Phase 2b clinical trial. In these retrospective analyses, we observed differences in visual outcomes from baseline favoring the combination of 1.5 mg of Fovista and Lucentis compared to Lucentis monotherapy regardless of the baseline size of neovascularization or the baseline vision of the patient. We believe that these results suggest that the benefits of treatment with 1.5 mg of Fovista in combination with Lucentis as compared to Lucentis monotherapy may be applicable to a broad segment of patients with wet AMD.

Phase 3 Clinical Trials Build Upon and Incorporate Phase 2b Clinical Trial Design

Our ongoing pivotal Phase 3 clinical program for Fovista consists of three separate Phase 3 clinical trials evaluating the safety and efficacy of Fovista administered in combination with anti-VEGF drugs for the treatment of wet AMD compared to anti-VEGF monotherapy. We completed patient enrollment in one of the Fovista Phase 3 Lucentis Trials in May 2015 and in the other Fovista Phase 3 Lucentis Trial in November 2015. We continue to actively enroll patients in the Fovista Phase 3 Eylea/Avastin Trial. The primary efficacy endpoint in each of our Phase 3 clinical trials is the mean change in visual acuity from baseline, which will be assessed at 12 months after first treatment.

The two Fovista Phase 3 Lucentis Trials build upon and incorporate significant aspects from the design of our Phase 2b clinical trial. We believe that the following aspects of our two Fovista Phase 3 Lucentis Trials may reduce the risk that we will have unexpected outcomes in these two trials:

- While we have modified the methodology used to determine a patient's eligibility under certain of the inclusion and exclusion criteria for our Phase 3 clinical trials as compared to our Phase 2b clinical trial, we have made no meaningful changes to the inclusion and exclusion criteria in these Phase 3 clinical trials from those we used in our Phase 2b clinical trial. We expect that this will result in the enrollment of a patient population similar to the patient population enrolled in our Phase 2b clinical trial.

- We are not changing the pre-specified primary endpoint, mean change in visual acuity from baseline, that we used in our Phase 2b clinical trial. However, we will assess mean change in visual acuity from baseline in these Phase 3 clinical trials at 12 months, instead of at 24 weeks as in our Phase 2b clinical trial. In our Phase 2b clinical trial, the relative magnitude of visual benefit seen with the combination of 1.5 mg of Fovista and Lucentis compared to Lucentis monotherapy increased over the study period.

- Our Phase 2b clinical trial was well powered to detect a statistically significant difference in mean change in visual acuity between patients treated with 1.5 mg of Fovista in combination with Lucentis and patients treated with Lucentis monotherapy. We are further improving our ability to detect any statistically significant differences in pre-specified efficacy outcomes between the treatment and control arms of our Phase 3 clinical trials by substantially increasing both the number of patients who will receive 1.5 mg of Fovista in combination with Lucentis and the number of patients who will receive Lucentis monotherapy as compared to our Phase 2b clinical trial.

- We are using a dose of Fovista that exhibited a favorable safety profile in our Phase 2b clinical trial. We are using the same standard of care anti-VEGF drug, Lucentis, in combination with Fovista and as the monotherapy control in these two Phase 3 clinical trials as we used in our Phase 2b clinical trial.

We are also conducting a third clinical trial, the Fovista Phase 3 Eylea/Avastin Trial, that is evaluating the safety and efficacy of Fovista administered in combination with Avastin or Eylea compared to Avastin or Eylea monotherapy. We believe that Fovista may provide meaningful added benefit in the treatment of wet AMD regardless of which anti-VEGF drug is administered in combination with Fovista. The Committee for Medicinal Products for Human Use, or the CHMP, of the EMA has informed us that, given that Avastin is not approved for intravitreal use in the European Union, the final label for Fovista in the European Union, if Fovista receives marketing approval, may be required to specify only the anti-VEGF drugs approved for intravitreal use that were studied in combination with Fovista, rather than a label specifying Fovista for use in combination with any anti-VEGF drug.

Potential to Enhance Efficacy of Current Standard of Care

We intend to seek a broad label with regard to patient and/or lesion characteristics for Fovista in combination with anti-VEGF drugs for the treatment of patients with wet AMD. The anti-VEGF market for the treatment of wet AMD currently consists of Lucentis, Avastin and Eylea. The condition of many patients suffering with wet AMD initially improves through the use of anti-VEGF drugs. However, in a substantial portion of cases of wet AMD patients receiving anti-VEGF drugs, the condition of the patient deteriorates over time. For example, based on results of third-party clinical trials, after one year of treatment with an anti-VEGF drug, approximately 18% to 22% of newly diagnosed wet AMD patients lost additional vision, defined as the loss of the ability to read one or more letters on a standardized chart of vision testing, and approximately 62% to 75% of such patients did not achieve an ability to read an additional 15 or more letters on the standardized chart of vision testing post-treatment.

In 2013, the peer reviewed journal *Ophthalmology* published a study reporting on a four-year longitudinal analysis of 555 wet AMD patients treated with an anti-VEGF drug. The study found that after four years, on average, patients lost vision compared to their visual acuity at the start of the study. Thirty-two percent of the patients in the study continued treatment for the entire four-year study period. After four years, mean visual acuity in this group of patients essentially reverted to pre-study levels. In addition, 28% of patients discontinued treatment because of poor visual outcomes. The primary reasons for discontinuation of treatment in this group were sustained low visual acuity and lack of apparent treatment response.

In addition, *Ophthalmology* also published in 2013 the results of an uncontrolled study of patients who had received two years of monthly treatment with Lucentis in clinical trials and then received additional treatment with Lucentis at a physician's discretion for two more years. When assessed at their last evaluation in this study, approximately 46% of such patients had lost additional vision, defined as the loss of the ability to read one or more letters on a standardized chart of vision testing.

Moreover, in 2013, *Ophthalmology* published the results of a separate follow-up study of a cohort of these same patients. When assessed approximately three years after completing their participation in the prior study, approximately one-third had poor outcomes, defined as the loss of the ability to read 15 or more letters on a standardized chart of vision testing, according to the study conclusions. In addition, approximately 57% of such patients had lost additional vision, defined as the loss of the ability to read one or more letters on a standardized chart of vision testing, compared to baseline prior to receiving therapy in the original clinical trials, and approximately 37% had visual acuity at the level of legal blindness, defined as visual acuity of 20/200 or worse. The study authors noted that wet AMD patients remain at risk for substantial visual decline.

In a study published in 2013 in *American Journal of Ophthalmology*, 40% of wet AMD patients exhibited subretinal fibrosis and retinal scarring after two years of treatment with Lucentis. According to a retrospective analysis of the Comparisons of AMD Treatment Trials, or CATT, published in 2013 in

Ophthalmology, 32% of newly diagnosed wet AMD patients developed retinal scarring after one year of treatment with either Lucentis or Avastin, while 45% of newly diagnosed wet AMD patients developed retinal scarring after two years of treatment with either Lucentis or Avastin.

The PDGF pathway is one of the major mediators of fibrosis. In 2006, the peer reviewed *Journal of Cell Physiology* published the results of a study in which Fovista monotherapy exhibited anti-fibrotic effects in an animal model of retinal scarring. We therefore believe that Fovista's ability to inhibit the PDGF pathway may enhance regression of neovascularization and also may inhibit the development of subretinal fibrosis in the eye when administered in combination with an anti-VEGF drug. We believe continued Fovista anti-PDGF therapy administered in combination with anti-VEGF drugs may result in improved visual outcomes for patients with wet AMD as compared to anti-VEGF monotherapy.

We believe that the administration of Fovista in combination with anti-VEGF drugs in patients with wet AMD may disrupt abnormal new blood vessels and cause neovascular regression more effectively than anti-VEGF monotherapy, leading to improved visual outcomes. In addition, based on our initial retrospective assessment of retinal images of patients who experienced vision loss following treatment with either 1.5 mg of Fovista in combination with 0.5 mg of Lucentis or Lucentis monotherapy in our completed Phase 2b clinical trial and a retrospective analysis conducted by an independent reading center, as well as results from preclinical tests and our review of recent scientific literature, we also believe that wet AMD patients who receive anti-VEGF monotherapy may remain at increased risk for the development of subretinal fibrosis. We believe that the development of subretinal fibrosis in these patients may, in part, be responsible for the deterioration of vision that many wet AMD patients experience over time, notwithstanding treatment with an anti-VEGF drug. In May 2015, we completed enrollment in our OPH1005 Fovista Anti-Fibrosis Study and we presented interim data from this trial in late 2015. See "—Potentially Expanding the Use of Fovista—Fovista Expansion Studies in Wet AMD" below for a description of the interim data we have presented to date.

Age-Related Macular Degeneration

Eye disease can be caused by many factors and can affect both the front and back of the eye. In its most extreme cases, eye disease can result in blindness. In the developed world, the major diseases that result in blindness are those affecting the retina, including AMD and diabetic retinopathy, and glaucoma. These diseases deprive patients of their sight and, as a result, their ability to live independently and perform daily activities. Any improvement in vision, or even a slowing of the rate of vision loss, has a tremendous impact on the quality of life of patients with impaired vision.

AMD is a leading cause of vision loss in people over the age of 50 in the western world. There are two forms of AMD, dry AMD and wet AMD. According to AMD Alliance International, approximately 10 million people in the United States and 30 million people worldwide suffer from some form of AMD. AMD Alliance International estimates that dry AMD accounts for 85% to 90% of all AMD cases, while a study published in *Ophthalmology* in 2012 analyzing age and gender variations in AMD prevalence estimates that approximately 8 million people worldwide are affected by GA, a form of dry AMD. A study on the burden of AMD published in 2006 in the peer reviewed journal *Current Opinion in Ophthalmology*, estimated that 1,250,000 people in the United States, suffer from wet AMD. In addition, AMD Alliance International reports that approximately 200,000 new cases of wet AMD arise each year in the United States. Based on U.S. Census Bureau data, we estimate that over the next two decades in the United States the number of people aged 55 or older is expected to increase by approximately 36% and the number of people aged 65 and older is expected to increase by approximately 69%. We expect that this increase in the number of elderly people will result in a significant increase in the number of cases of both dry AMD, including cases of GA, and wet AMD in the United States.

AMD is a major public health problem that has a devastating effect on patients and a significant adverse impact on the economy. AMD distorts the acute central vision necessary for daily activities such as reading, face recognition, watching television and driving and can lead to loss of central vision and blindness. According to a 2010 study sponsored by AMD Alliance International, the annual direct healthcare system costs of visual impairment worldwide due to AMD were estimated at approximately $255 billion. According to the same study, wet AMD patients suffer a reduced quality of life and experience difficulty performing daily activities, social isolation, higher than normal rates of clinical depression, twice the risk of premature death as those who are not visually impaired, increased risk of falls and related hip fractures and premature admission to nursing homes. Wet AMD represents approximately 10% of all cases of AMD, but is responsible for 90% of the severe vision loss associated with the disease.

According to a study on the burden of AMD published in 2006 in *Current Opinion in Ophthalmology*, an average patient with AMD experiences a decrease in his or her quality of life equivalent to that of patients suffering from other diseases often perceived as more severe. For example, moderate age-related macular degeneration, defined as vision of 20/50 to 20/100 in the better-seeing eye, causes a 40% decrease in the average patient's quality of life, similar to that associated with severe cardiac angina or renal dialysis. Normal visual acuity is commonly referred to as 20/20 vision, and a person with 20/50 vision can read letters on an eye chart from 20 feet away as well as a person with normal vision can read the chart from 50 feet away.

Wet AMD

Wet AMD is preceded by dry AMD. In a subset of patients, dry AMD converts to wet AMD when new and abnormal blood vessels invade the retina. These abnormal new blood vessels originate beneath the retina, in a layer called the choroid, and invade into the overlying retinal layers. This abnormal new blood vessel growth is generally referred to as pathological angiogenesis. In the context of wet AMD, pathological angiogenesis is associated with both the development of neovascular cells and the accumulation of other cell types and altered tissue. The pathological neovascular tissue in wet AMD is called the choroidal neovascular complex or choroidal neovascularization. Choroidal neovascularization, or CNV, and adjacent and contiguous areas of blood and altered tissue are referred to as a lesion.

Abnormal new blood vessels tend to be fragile and often bleed and leak fluid into the macula, the central most portion of the retina responsible for central vision and color perception. Untreated, new blood vessel growth and associated leakage typically lead to retinal distortion and eventual retinal scarring, with irreversible destruction of the macula, resulting in loss of vision. This visual loss occurs rapidly with a progressive course. Approximately 90% of wet AMD cases involve subfoveal choroidal neovascularization, which is blood vessel growth directly under the central portion of the macula, known as the fovea. Our Phase 3 clinical program for Fovista is enrolling patients with subfoveal wet AMD.

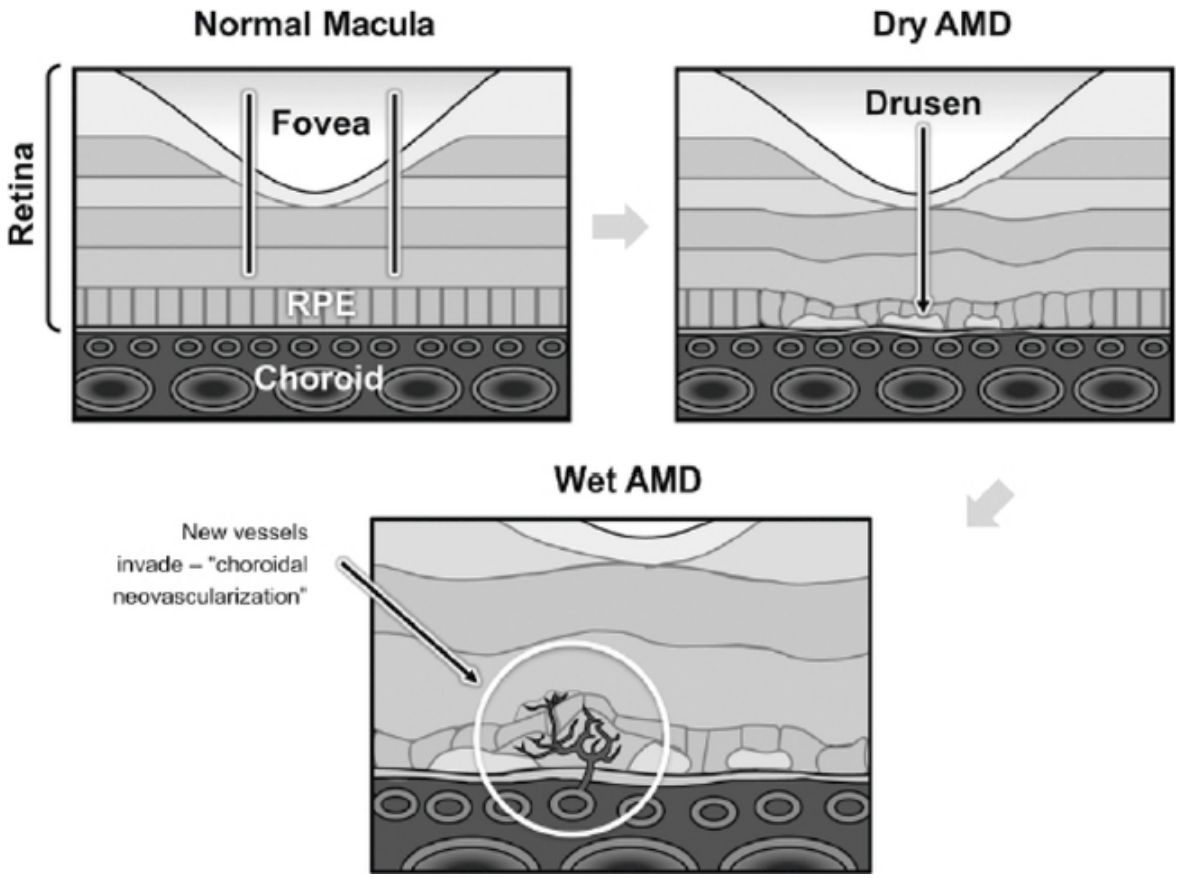
Wet AMD traditionally has been divided into subtypes based on the pattern of the abnormal new blood vessels using the diagnostic imaging technique fluorescein angiography or cross sectional location of the abnormal new blood vessels using the diagnostic imaging technique spectral domain optical coherence tomography, or SD-OCT. These subtypes form a continuous spectrum of pathological neovascularization based on whether the abnormal new blood vessels are well defined and delineated as determined by fluorescein angiography or whether they have invaded the RPE layer of the retina. The RPE layer of the retina lies between the choroid and the neurosensory region of the retina.

Retinal specialists historically have used fluorescein angiography to determine the extent and location of abnormal new blood vessels relative to the RPE. This technique involves injection of a fluorescent dye into the systemic circulation and capturing images showing the circulating dye during transit through the retinal circulation using a specialized camera. Fluorescein angiography is very

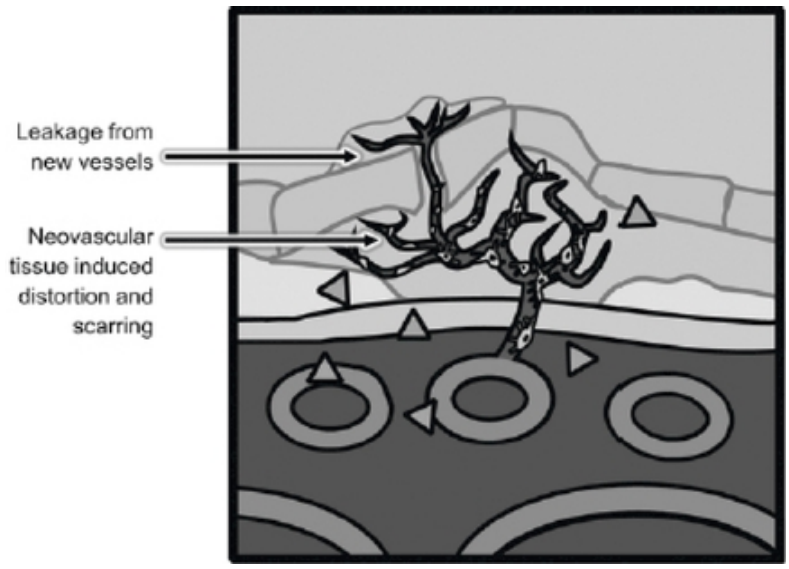
sensitive in detecting the presence or absence of neovascularization. However, fluorescein angiography's accuracy in subtype detection can be inconsistent. In addition, the use of fluorescein angiography is limited in detecting the location and position of the abnormal blood vessels relative to the RPE due to the variability and subjectivity inherent in the reading of the fluorescein angiogram. Currently, there is a shift toward using the latest, high resolution SD-OCT models to image the abnormal new blood vessels and the associated leakage in wet AMD patients. Increasingly, retinal specialists, in determining the subtype classification, use SD-OCT to assess whether the presence of abnormal new vessels is located above or below the RPE. Because of technological enhancements in SD-OCT machines, the resolution of SD-OCT retinal tissue imaging has increased markedly over the last few years. SD-OCT is the current standard for retinal imaging in the United States and the European Union. SD-OCT utilizes specialized light scattering through the biological tissues and obtains high-resolution retinal tissue images using a specialized camera. SD-OCT images show a cross-sectional view of the retina that permits enhanced resolution of the space under the retina and at the RPE level where the neovascularization associated with wet AMD is present. SD-OCT images allow for a more precise analysis of anatomical differences between various angiographic subtypes of CNV lesions in neovascular AMD, especially with respect to the location of the abnormal new vessels relative to the RPE.

The abnormal new blood vessels are made up of "classic" and "occult" components, when assessed by fluorescein angiography. The term "classic" applies to the portion or component of the patient's abnormal new bloods vessels or neovascularization that is well defined by fluorescein angiography, with their location usually represented above the RPE. The term "occult" applies to the portion or component of the patient's abnormal new blood vessels that is poorly defined by fluorescein angiography, with their location usually represented below the RPE. The quantification of the amount of the patient's "classic" or "occult" components with respect to the neovascular lesion determines whether the lesion is "pure classic," "predominantly classic," "minimally classic" or "pure occult." The term "pure classic" applies when 100% of the lesion is composed of the classic component. The term "predominantly classic" applies when 50% or greater of the lesion is made up of the classic component. The term "minimally classic" applies when less than 50% of the lesion is made up of the classic component. The term "pure occult" or "occult lesions" applies when there is no classic component to the lesion and therefore the entire, or 100%, of the lesion is made up of the occult component. Based on enrollment of untreated wet AMD patients in third-party clinical trials, the pure occult subtype accounts for approximately 40% of the cases of subfoveal wet AMD in the wet AMD patient population. Some component of occult choroidal neovascularization is present in predominantly classic and minimally classic choroidal neovascularization. For example, in minimally classic choroidal neovascularization, as observed through fluorescein angiography, up to 99% of the blood vessels may be composed of the occult component, thus only 1% different from 100% or pure occult.

The following diagrams show cross-sections of the back of a normal eye and the progression to and mechanisms of visual loss associated with the neovascularization component of wet AMD:



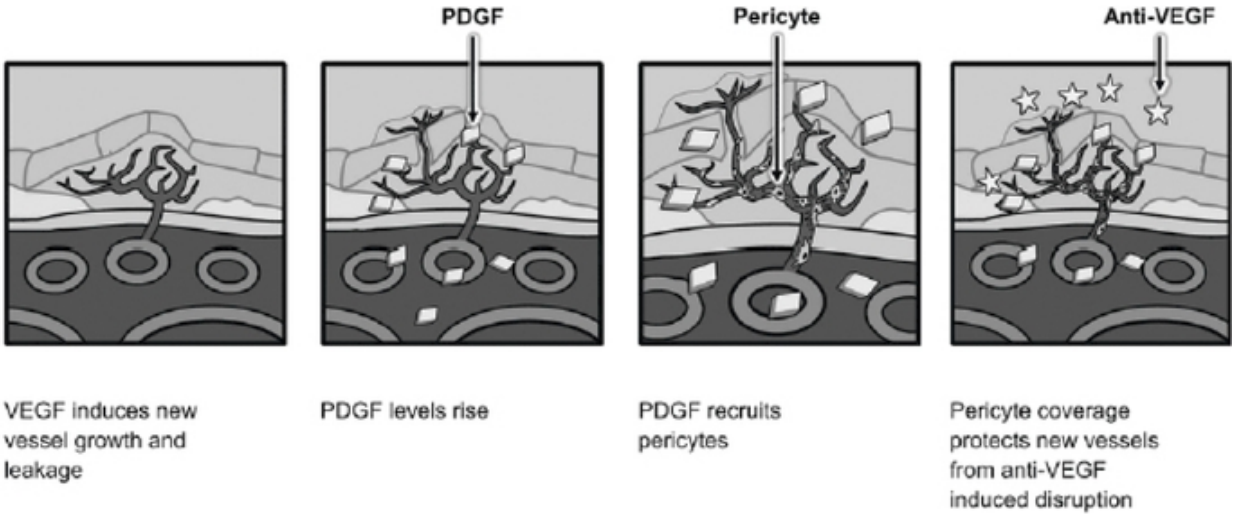
Visual Loss in Wet AMD



Abnormal new blood vessels are predominantly made up of two cell types, endothelial cells and pericytes. The endothelial cells line the inside of abnormal new blood vessels. Pericytes then intimately cover the outside of these blood vessels. Early in the process of abnormal new blood vessel formation, VEGF binds to a receptor on endothelial cells and causes endothelial cells to proliferate. The proliferating endothelial cells form new blood vessels. VEGF provides survival signals to endothelial cells. VEGF also is one of the most potent inducers of blood vessel permeability, which causes the new blood vessels to leak.

PDGF binds to a receptor on pericytes. The binding of PDGF provides an important cell survival signal to pericytes. PDGF also recruits pericytes to the abnormal new blood vessel, where they mature and cover the endothelial cells. Pericytes locally supply the endothelial cells with growth and survival factors, including VEGF, and play a major role in endothelial cell survival. Pericytes also physically support and stabilize the abnormal new blood vessels.

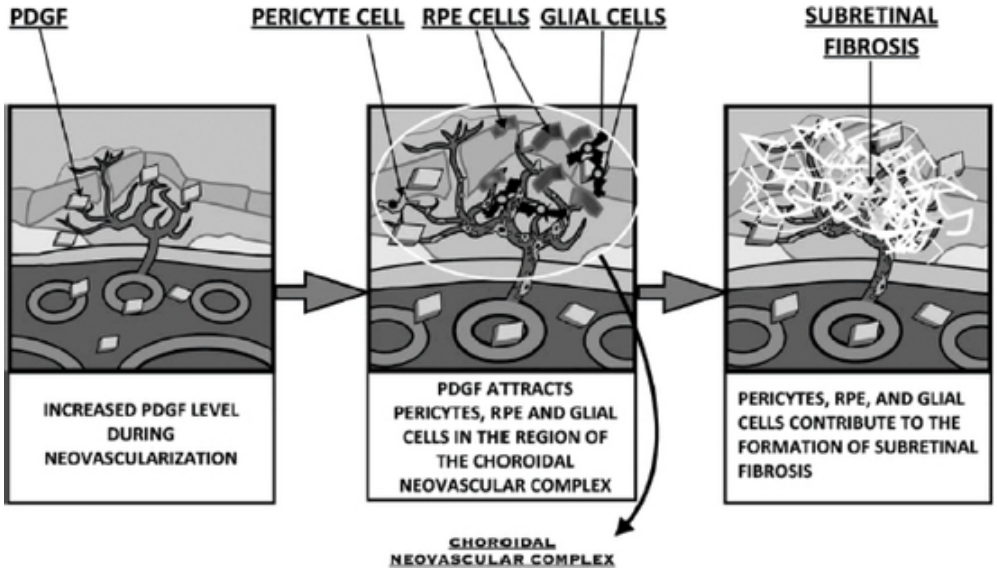
The following diagrams show cross-sections of the back of an eye and the chemical and cellular processes associated with the progression to neovascularization in wet AMD:



The neovascular tissue from patients with wet AMD has been studied extensively through microscopic examination. When examined microscopically, the choroidal neovascular complex appears similar in composition to the tissue encountered in the normal wound healing process. It contains abnormal new blood vessels consisting of endothelial cells and pericytes, and also cells from the surrounding retinal tissue, including RPE cells and glial cells. Glial cells otherwise have a number of important functions, including acting as immune defense cells within the retina.

PDGF attracts pericytes, RPE cells and glial cells, which are all involved in the formation of the choroidal neovascular complex. Third-party preclinical studies suggest that these cells also contribute to the formation of subretinal fibrosis and retinal scarring. PDGF also has been observed as a mediator of fibrosis and wound healing in other organs throughout the body.

The following diagrams show cross-sections of the back of an eye and the chemical and cellular processes associated with the progression from neovascularization to subretinal fibrosis in more advanced cases of wet AMD:



Currently Available Therapies for Wet AMD

The current standard of care for wet AMD is administration by intravitreal injection of anti-VEGF drugs as monotherapy. The FDA has approved the anti-VEGF drugs Lucentis, Eylea and Macugen for the treatment of wet AMD. The FDA also has approved photodynamic therapy with Visudyne (PDT) as a treatment of patients with wet AMD. In addition, although approved by the FDA as a cancer therapy, the anti-VEGF drug Avastin is used off-label to treat wet AMD. Lucentis is an antibody fragment derived from the same full length antibody from which Avastin was derived.

Lucentis and Eylea are used primarily to treat wet AMD, although they also are approved for the treatment of other diseases of eye. In 2015, annual worldwide sales of Lucentis and Eylea totaled approximately $7.7 billion for multiple retinal disease indications, including wet AMD, macular edema following retinal vein occlusion (also known as RVO), diabetic macular edema (also known as DME) and diabetic retinopathy in patients with DME. Lucentis is marketed in the United States by F. Hoffmann-La Roche, Ltd. and outside the United States by Novartis AG. Eylea is marketed in the United States by Regeneron Pharmaceuticals, Inc. and outside the United States by Bayer AG, except in Asia where it is marketed by Santen Pharmaceuticals Co. Ltd. The sales number presented above does not include sales of Avastin, which is used off-label to treat wet AMD in the United States and in the European Union. Avastin is approved as a cancer therapy and is marketed solely for such use. However, according to physician prescribing data provided by IMS Health, in 2013, Avastin was used off-label to treat approximately 50% of Medicare beneficiaries, and approximately 66% of new-to-therapy Medicare beneficiaries, who received anti-VEGF drugs for wet AMD. In addition, according to information published in November 2012 by BioTrends Research Group, retinal specialists in the largest markets in the European Union use off label Avastin to treat approximately 27% of patients with wet AMD. Avastin is available through compounding pharmacies and distributors for off-label use to treat wet AMD at a significantly lower price per dose than either Lucentis or Eylea.

The availability of anti-VEGF drugs has significantly improved visual outcomes for patients with wet AMD who have been treated with anti-VEGF drugs as compared to untreated patients. A retrospective study published in 2012 in the peer reviewed journal *JAMA Ophthalmology* confirmed that

the prevalence of both legal blindness and moderate visual impairment in patients two years after being diagnosed with wet AMD have decreased substantially following the introduction of anti-VEGF drugs. Nonetheless, the condition of many patients with wet AMD treated with anti-VEGF drugs does not improve significantly and deteriorates in a substantial portion of cases. Moreover, on average, improvement in vision through the use of an anti-VEGF drug in the near term is followed by the loss of the initial visual gain over the longer term.

Anti-VEGF drugs prevent VEGF from binding to its natural receptor on endothelial cells in the abnormal new blood vessels, thereby inhibiting further abnormal new blood vessel growth and leakage associated with wet AMD. There is widespread agreement in the scientific community that the majority of the therapeutic benefit of anti-VEGF drugs is due to reducing or eliminating leakage. However, anti-VEGF drugs may be limited in their ability to induce disruption and regression of neovascularization. We believe that the presence of pericytes and their local production of VEGF and other factors protect endothelial cells from the effects of anti-VEGF drugs. Furthermore, a significant percentage of patients treated with an anti-VEGF drug eventually exhibit subretinal fibrosis and retinal scarring. The eventual development of subretinal fibrosis and retinal scarring in wet AMD patients may limit the impact of anti-VEGF drugs in the longer term. Third-party clinical trial results suggest that altering the dose or regimen of anti-VEGF drugs administered for the treatment of wet AMD does not enhance visual outcome. Moreover, third-party clinical trials also suggest that visual outcomes for wet AMD patients receiving treatment with an anti-VEGF drug worsen over time and are often associated with the growth of neovascular lesions and the development of subretinal fibrosis over time.

Based on the results of third-party clinical trials, after one year of treatment with an anti-VEGF drug:

- approximately 18% to 22% of newly diagnosed wet AMD patients lost additional vision, defined as the loss of the ability to read one or more letters on a standardized chart of vision testing, in many cases further diminishing the patients' quality of life;

- approximately 62% to 75% of newly diagnosed wet AMD patients did not achieve an ability to read an additional 15 or more letters on the standardized chart of vision testing and have not experienced a marked improvement in their ability to enjoy the daily activities made difficult by wet AMD; and

- a majority of patients have not achieved final visual acuity of 20/40 or better, which is necessary to obtain a driver's license in many states.

In 2013, *Ophthalmology* published a study reporting on a four-year longitudinal analysis of 555 wet AMD patients treated with Lucentis. All of the patients included in the study were treated at a single center with the same drug and retreatment criteria. The study found that after four years, on average, patients lost vision compared to their visual acuity at the start of the study. Thirty-two percent of patients continued treatment for the entire four-year study period. After four years, mean visual acuity in this group of patients essentially reverted to pre-study levels. In addition, 28% of patients discontinued treatment. The primary reasons for discontinuation of treatment were sustained low visual acuity and lack of apparent treatment response.

In addition, in 2013, *Ophthalmology* published the results of an uncontrolled study of patients who had received two years of treatment with an anti-VEGF drug in clinical trials and then received additional anti-VEGF monotherapy at physician's discretion for two more years. When assessed at their last evaluation in this study, approximately 46% of such patients had lost additional vision, defined as the loss of the ability to read one or more letters on a standardized chart of vision testing. Moreover, in 2013, *Ophthalmology* published the results of a separate follow-up study of a cohort of these same patients. When assessed approximately three years after completing their participation in the prior study, approximately one-third had poor outcomes, defined as the loss of the ability to read 15 or more

letters on a standardized chart of vision testing, according to the study conclusions. In addition, approximately 57% of such patients had lost additional vision, defined as the loss of the ability to read one or more letters on a standardized chart of vision testing, compared to baseline prior to receiving therapy in the original clinical trials, and approximately 37% had visual acuity at the level of legal blindness, defined as visual acuity of 20/200 or worse. The study authors noted that wet AMD patients remain at risk for substantial visual decline.

We believe that PDGF is one of the major mediators of the formation and stabilization of the choroidal neovascular complex and the associated development of subretinal fibrosis and retinal scarring. These two processes were associated with poor visual outcome in wet AMD patients in the CATT study, a National Eye Institute sponsored multicenter clinical trial. We believe the formation of subretinal fibrosis and retinal scarring leads to retinal dysfunction in the affected region which, on average, leads to poor visual outcomes in a significant portion of wet AMD patients. Two recent studies have focused on the development of subretinal fibrosis in wet AMD patients receiving treatment with an anti-VEGF drug and have implicated subretinal fibrosis as a major factor in the long-term prognosis for visual outcomes for wet AMD patients:

- An article appearing in *Ophthalmology* in 2013 focused on the development of retinal scarring in wet AMD patients receiving treatment with Lucentis or Avastin monotherapy. Findings were based on a retrospective analysis of the CATT study. Approximately 1,200 newly diagnosed wet AMD patients were enrolled and treated with either Lucentis or Avastin over a period of two years. Patients with retinal scarring upon study entry or for whom one-year and two-year ocular photographs were not available were excluded from the analysis. Of the remaining 1,059 patients, 339, or 32%, developed retinal scarring after one year of treatment with either Lucentis or Avastin, while 480, or 45%, developed retinal scarring after two years of treatment with either Lucentis or Avastin. Patients with larger lesion sizes or visual acuity of less than 20/40 upon study entry were more likely to develop retinal scarring.

- In a separate paper from 2013 published in the *American Journal of Ophthalmology*, researchers in Denmark corroborated the published retrospective analysis of the CATT study described above. In the study of 197 newly diagnosed wet AMD patients treated in a single facility, 40% of eyes developed subretinal fibrosis following two years of treatment with Lucentis. Analysis of the results from this study revealed that patients that exhibited subretinal fibrosis began to develop subretinal fibrosis from and after the 3-month time point in the study. Moreover, the development of more severe subretinal fibrosis was associated with more severe vision loss.

Fovista

We are developing our product candidate Fovista to be administered in combination with anti-VEGF drugs for the treatment of wet AMD. Fovista is designed to target PDGF. We believe that Fovista's mechanism of action, when administered in combination with an anti-VEGF drug, may result in two relevant biological responses: neovascular regression and inhibition of subretinal fibrosis. We further believe that the administration of Fovista in combination with anti-VEGF drugs in patients with wet AMD may cause regression of neovascularization and inhibit subretinal fibrosis more effectively than anti-VEGF monotherapy. We believe that Fovista may provide meaningful added benefit in the treatment of wet AMD regardless of which anti-VEGF drug is administered in combination with Fovista. Fovista binds to and inhibits PDGF, causing the stripping of pericytes, which are cells that cover the outside of newly formed blood vessels. After the pericytes are stripped from the new blood vessels, endothelial cells lining the inside of the newly formed blood vessels are left unprotected and are highly vulnerable to the effects of anti-VEGF drugs. Fovista also inhibits migration of other retinal cells attracted by PDGF, such as RPE cells and glial cells, which play a role in the formation of subretinal fibrosis. Our belief that Fovista may inhibit subretinal fibrosis is based on our initial retrospective assessment of retinal images of patients who experienced vision loss following treatment

with either 1.5 mg of Fovista in combination with 0.5 mg of Lucentis or Lucentis monotherapy in our completed Phase 2b clinical trial and a retrospective analysis conducted by an independent reading center, as well as results from pre-clinical tests and the scientific literature. In October 2014, an independent subgroup analysis assessing the development and progression of subretinal fibrosis in our Phase 2b clinical trial was presented at the Annual Meeting of the American Academy of Ophthalmology. This retrospective analysis showed that the mean change in severity of subretinal fibrosis from baseline to conclusion of the study at 24 weeks was 0.97 for the Fovista (1.5 mg) combination therapy group as compared to 2.0 for the Lucentis monotherapy group (P = 0.003), based on a five-step grading system developed by Dr. Usha Chakravarthy, an internationally recognized key opinion leader. At 24 weeks, approximately twice the number of patients on standard of care anti-VEGF monotherapy (54%) were noted to have progression of subretinal fibrosis compared to the Fovista (1.5 mg) combination therapy group (27%). In eyes without any subretinal fibrosis at baseline, subretinal fibrosis developed in 10% of patients who received Fovista (1.5 mg) combination therapy, compared to 51% of patients who received monotherapy Lucentis.

VEGF and PDGF are growth factors that share some structural similarities. The VEGF family consists of multiple members, called VEGF-A, VEGF-B, VEGF-C, VEGF-D and PlGF. The PDGF family also consists of multiple members, called PDGF-AA, PDGF-AB, PDGF-BB, PDGF-CC and PDGF-DD.

Lucentis, Avastin and Eylea all target VEGF-A, which we generally refer to as VEGF. Fovista targets PDGF-BB, which we generally refer to simply as PDGF. The biological effects of VEGF-A and PDGF-BB are mediated by binding to receptors on the cell surface. Once VEGF-A and PDGF-BB bind to their respective receptors, a variety of signals are generated inside the cell, which alters the cell's behavior. The specific receptors for VEGF-A are called VEGFR-1 and VEGFR-2. The specific receptors for PDGF-BB are called PDGFR-a and PDGFR-ß.

VEGF-A is critical for endothelial cell survival and proliferation. The anti-VEGF drugs Lucentis, Avastin and Eylea exert their biologic effect by binding to VEGF-A, which blocks its interaction with the endothelial cell surface receptor VEGFR-2. This blocking results in inhibition of endothelial cell proliferation, inhibition of endothelial cell survival and inhibition of vascular permeability. PDGF-BB has been shown in multiple independent studies to be critical for pericyte survival and proliferation. Fovista exerts its biologic effect by binding to PDGF-BB, which blocks its interaction with the pericyte cell surface receptor PDGFR-ß. This blocking results in stripping or death of the pericytes by interrupting the cell survival signals.

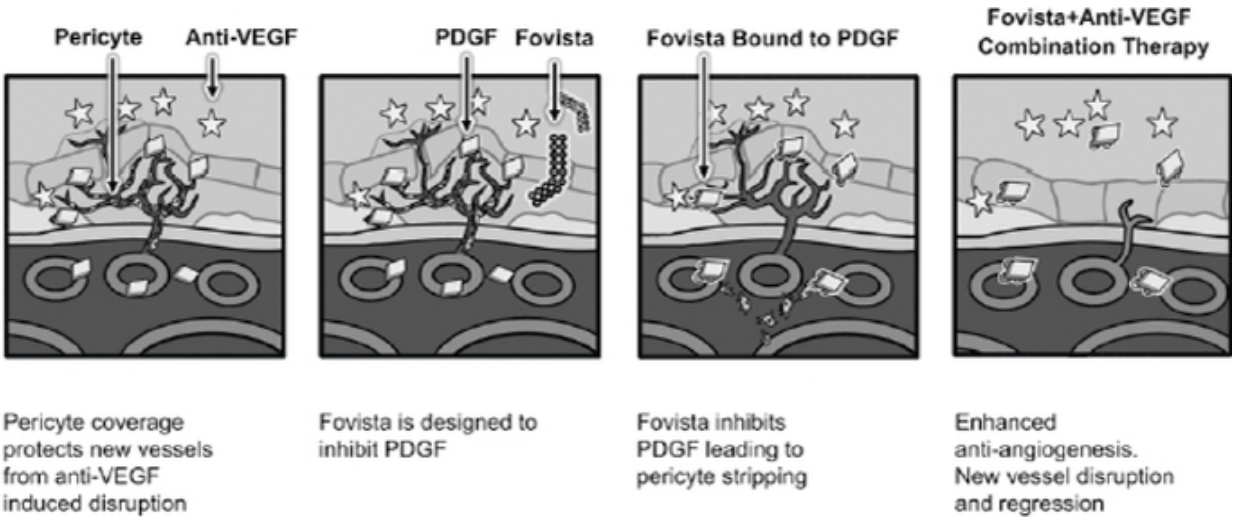
We have measured Fovista's inhibition of both PDGF-BB and PDGF-AB binding to both their receptors, PDGFR-a and PDGFR-ß, using widely accepted scientific methods. In *in vitro* assays, Fovista strongly inhibits both PDGF-BB and PDGF-AB from binding to their receptors with potency equal to an antibody that directly blocks the PDGFR-a and PDGFR-ß receptors. In preclinical models, we observed the marked stripping of pericytes from abnormally proliferating blood vessels in animals treated with Fovista. The combination of Fovista and anti-VEGF treatment in animal models of neovascularization disrupted and regressed abnormal new blood vessels to a greater degree than treatment with anti-VEGF monotherapy.

At least two reported studies support our hypothesis regarding the benefit Fovista may provide in the inhibition of subretinal fibrosis. A 2005 article published in *Archives of Ophthalmology*, entitled "Histopathologic and Ultrastructural Features of Surgically Excised Subfoveal Choroidal Neovascular Lesions," described the presence of RPE cells and glial cells in surgically excised retinal neovascular membranes from AMD patients. The composition and appearance of these subretinal neovascular membranes was similar to the early formation of a scar. Furthermore, in 2006, the peer reviewed *Journal of Cell Physiology* published an article entitled "Intraocular Injection of an Aptamer that binds PDGF-B: A Potential Treatment for Proliferative Retinopathies" showing the results of a study in

which Fovista monotherapy exhibited anti-fibrotic effects in an animal model of retinal scarring. Moreover, more recent scientific publications have reported on the rate of subretinal fibrosis in wet AMD patients receiving treatment with an anti-VEGF drug. Based on these preclinical and clinical results, as well as our understanding of the mechanisms of action of anti-VEGF drugs and Fovista, we believe that Fovista has the potential to provide meaningful added benefit in the treatment of wet AMD compared to anti-VEGF monotherapy. When administered in combination with anti-VEGF drugs, we believe Fovista may result in both the inhibition and regression of neovascularization, as well as inhibition of subretinal fibrosis. We believe Fovista's mechanism of action is not dependent on the specific anti-VEGF drug regimen with which Fovista is administered.

The following diagram shows what we believe are the anti-neovascularization elements of Fovista's mechanism of action:

Regression of Neovascularization



The anti-PDGF ingredient in Fovista is a chemically synthesized aptamer. An aptamer is a single strand of nucleic acid that adopts a three-dimensional structure and binds with high specificity and affinity to a particular extracellular target, such as PDGF, in a manner similar to a monoclonal antibody. Aptamers have the following key attributes:

- aptamers are synthetically derived, making production predictable and reproducible; and
- aptamers are chemically stable and do not generate an immune response that could limit efficacy.

Fovista is a pegylated aptamer, which means that polyethylene glycol is linked to the strand of nucleic acid. This pegylation increases the half-life of Fovista, which in turn increases the time that Fovista actively targets PDGF.

In our Phase 3 clinical trials, Fovista is administered by intravitreal injection after a separate intravitreal injection of an anti-VEGF drug. Before a physician administers the intravitreal injections of the anti-VEGF drug and Fovista, the patient receives topical numbing drops or injection of a numbing agent. In addition, physicians typically rinse the ocular surface with an antiseptic solution. By injecting the medication into the vitreous, the physician delivers Fovista in close vicinity to the active disease site with minimal potential for exposure to non-ocular tissues. Many other therapies used to treat serious retinal disorders, including Lucentis, Avastin and Eylea, also are administered by intravitreal injection.

Clinical Development of Fovista Combination Therapy for Wet AMD

We have completed one Phase 1 clinical trial and one Phase 2b clinical trial of Fovista administered in combination with Lucentis for the treatment of wet AMD. Our pivotal Phase 3 clinical program consists of three separate Phase 3 clinical trials, two of which are evaluating Fovista in combination with Lucentis and the other of which is evaluating Fovista in combination with Avastin or Eylea. All three of these Phase 3 clinical trials incorporate significant aspects from the design of our completed Phase 2b clinical trial. We plan to enroll a total of approximately 1,866 patients in more than 250 centers internationally across the three trials. We completed patient enrollment in one of the Fovista Phase 3 Lucentis Trials in May 2015 and in the other Fovista Phase 3 Lucentis Trial in November 2015. We are continuing to actively enroll patients in the Fovista Phase 3 Eylea/Avastin Trial and expect to complete enrollment in 2016 based on current enrollment estimates. We expect initial, top-line data from both of the Fovista Phase 3 Lucentis Trials to be available during the fourth quarter of 2016, with initial, top-line data from the Fovista Phase 3 Eylea/Avastin Trial to be available in 2017 based on current enrollment estimates. If the results of this Phase 3 clinical program are favorable, we plan to submit applications for marketing approval for Fovista in the United States and, together with our ex-U.S. commercialization partner, Novartis, in the European Union.

Completed Phase 1 Clinical Trial of Fovista Combination Therapy for Wet AMD

In 2009, we completed a multicenter, uncontrolled, open label, ascending dose Phase 1 clinical trial evaluating the safety and tolerability of Fovista administered in combination with Lucentis for the treatment of subfoveal wet AMD. We conducted our Phase 1 clinical trial in 23 patients at 11 centers in the United States. Fovista was generally well tolerated in this trial.

Patients enrolled in our Phase 1 clinical trial were 50 years of age and older and newly diagnosed with subfoveal choroidal neovascularization secondary to AMD with some classic component as documented by fluorescein angiography. Although treating physicians typically do not use subtype categorization as a diagnostic tool for choosing among pharmacological agents for treating wet AMD, we used the subtype classification so as to include in our trial only wet AMD patients with at least some well-defined abnormal new blood vessels. Since we could image and measure the well-defined blood vessels, we believed that we would be able to assess the response of those blood vessels to treatment with Fovista in combination with Lucentis. If we noted regression of abnormal new blood vessels or a disruption or change in the density of abnormal new blood vessels, we believed it would support the anti-neovascularization element of our proposed mechanism of action for Fovista.

We enrolled patients with a range of baseline visual acuities. Visual acuity is measured as the number of letters, arranged in lines, that the patient can read on the Early Treatment Diabetic Retinopathy Study, or ETDRS, eye chart. Each line on the ETDRS eye chart has five letters. This is a well-established standardized chart of vision testing used in these types of trials. Normal visual acuity is commonly referred to as 20/20 vision. To qualify for enrollment in our Phase 1 clinical trial, the visual acuity in the patient's study eye had to be between 20/63 and 20/200. We enrolled patients with a wide range of lesion sizes and with a variety of other lesion characteristics.

We excluded patients from our Phase 1 clinical trial if they met any of the following key exclusion criteria:

- prior treatment for AMD in the study eye, other than oral supplements or vitamins and minerals;
- any intravitreal treatment in the study eye prior to the baseline visit, regardless of indication;
- intraocular surgery or thermal laser within three months of trial entry or any prior thermal laser in the macular region, regardless of indication;

- subfoveal scar or subfoveal atrophy; or
- diabetes mellitus.

Fovista administered in combination with Lucentis was generally well tolerated in our Phase 1 clinical trial. None of the patients experienced any dose limiting toxicities at any of the dose levels tested. We did not observe any evidence of drug related adverse events. Adverse events were primarily ocular adverse events in the study eye which were related to the injection procedure. There were no adverse events related to Fovista or Lucentis, and no patients discontinued from the trial due to an adverse event. We did not observe any meaningful clinical immunologic reactions to Fovista.

Our Phase 1 clinical trial had a small sample size and a short follow up period. It was not designed to compare Fovista combination therapy to another therapy. However, we noted improvements in visual acuity and anatomical changes in the newly formed blood vessels of the eye that suggested the Fovista combination therapy was enhancing the visual outcome compared to results previously seen with anti-VEGF monotherapy.

Completed Phase 2b Clinical Trial of Fovista Combination Therapy for Wet AMD

In 2012, we completed a multicenter, randomized, double-masked, controlled Phase 2b clinical trial evaluating the safety and efficacy of Fovista administered in combination with Lucentis for the treatment of patients newly diagnosed with subfoveal wet AMD. We conducted this trial in 449 patients at approximately 69 centers in North America, South America, Europe and Israel.

The primary objective of this trial was to evaluate the effect of two different doses of Fovista administered in combination with Lucentis compared to Lucentis monotherapy. The primary efficacy endpoint of this trial was mean change in visual acuity from baseline at 24 weeks for Fovista and Lucentis combination therapy compared to Lucentis monotherapy. Prior to enrollment in the trial, we measured each patient's visual acuity to establish a baseline. Following assessment at baseline, visual acuity was measured at each subsequent four-week time point. We had diagnostic imaging techniques of fluorescein angiography and SD-OCT performed and assessed by an independent reading center at baseline and at week 24.

Secondary efficacy endpoints for this trial included the following:

- mean change in visual acuity in ETDRS letters from baseline at 12 weeks;
- proportion of patients in each treatment group gaining 15 or more ETDRS letters from baseline at 12 weeks;
- proportion of patients in each treatment group gaining 15 or more ETDRS letters from baseline at 24 weeks; and
- mean change in area of choroidal neovascularization from baseline at 24 weeks.

We randomly assigned patients in this trial to one of three treatment groups. Patients were treated and assessed once every four weeks for 24 weeks. Treatment for the three groups in the trial was as follows:

- In the first group, 149 patients received intravitreal injections of 0.3 mg of Fovista following intravitreal injections of 0.5 mg of Lucentis.
- In the second group, 152 patients received intravitreal injections of 1.5 mg of Fovista following intravitreal injections of 0.5 mg of Lucentis.
- In the third group, which served as the control arm of the trial, 148 patients received sham injections following intravitreal injections of 0.5 mg of Lucentis.

To reduce potential bias, the protocol for our Phase 2b clinical trial provided for a double-masked design so that neither the patient nor the investigational staff involved with assessing the vision of the patient knew to which group each patient belonged. The sham injection included all steps involved in the intravitreal treatment injections with the exception that patients in the control group had an empty syringe pressed against their eye walls without a needle. This procedure mimicked an intravitreal injection and helped to maintain proper masking.

We made no meaningful changes to the inclusion and exclusion criteria in our Phase 2b clinical trial from those we used in our Phase 1 clinical trial. As in our Phase 1 clinical trial, we did not enroll patients with pure occult choroidal neovascularization because it would be difficult to adequately observe and measure the changes in the choroidal neovascular morphology using the imaging techniques that were generally available at most enrolling sites at the time we initiated our Phase 2b clinical trial. We believed that data regarding neovascular regression would be useful in assessing the effects of Fovista administered in combination with Lucentis and in supporting the anti-neovascularization element of our proposed mechanism of action for Fovista.

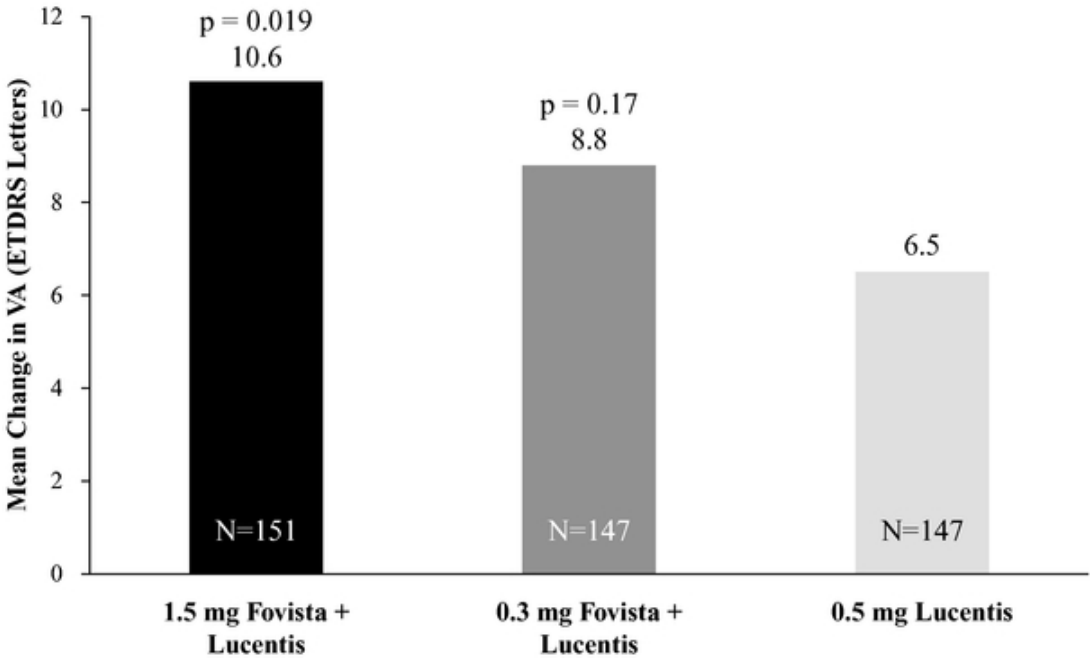
Measures of Mean Visual Acuity—Primary Efficacy Endpoint

Mean Change in Visual Acuity from Baseline at 24 Weeks. In this trial, the combination of 1.5 mg of Fovista and Lucentis demonstrated statistically significant superiority compared to Lucentis monotherapy based on the pre-specified primary endpoint of mean change in visual acuity from baseline at the 24 week time point. We determined statistical significance based on a widely used, conventional statistical method that establishes the p-value of clinical results. Typically, a p-value of 0.05 or less represents statistical significance. However, when multiple doses of a drug are tested against a single control group, a more stringent statistical method that accounts for multiple comparisons must be applied. For this purpose, we used the Hochberg multiple comparison procedure. Under the Hochberg procedure, in order to demonstrate statistical significance for any particular dose, it is necessary to establish a p-value that meets a stricter standard than the conventional standard of 0.05 or less unless each dose is statistically significant with a p-value of 0.05 or less. In the case of our Phase 2b clinical trial, in which we evaluated two doses of Fovista administered in combination with Lucentis, the Hochberg procedure required a more stringent p-value of 0.025 or less to establish statistical significance for the comparison of the combination of 1.5 mg of Fovista and Lucentis to Lucentis monotherapy.

At 24 weeks, patients receiving the combination of 1.5 mg of Fovista and Lucentis gained a mean of 10.6 ETDRS letters compared to a mean of 6.5 ETDRS letters for patients receiving Lucentis monotherapy, representing a 62% comparative benefit from baseline, with a p-value of 0.019. This result was statistically significant. At 24 weeks, patients receiving the combination of 0.3 mg of Fovista and Lucentis gained a mean of 8.8 ETDRS letters. This result was not statistically significant, having a p-value greater than 0.05, compared to Lucentis monotherapy. However, as discussed in more detail below, we believe that the relative visual benefit of the combination of 1.5 mg of Fovista and Lucentis compared to the relative visual benefit of the combination of 0.3 mg of Fovista and Lucentis at all time points exhibits a dose-response curve in which the response to treatment increases with higher drug concentrations of Fovista. We are not testing the combination of 0.3 mg of Fovista and Lucentis compared to Lucentis monotherapy in our Phase 3 clinical program.

The graph below sets forth the results of the pre-specified primary endpoint in this Phase 2b clinical trial.

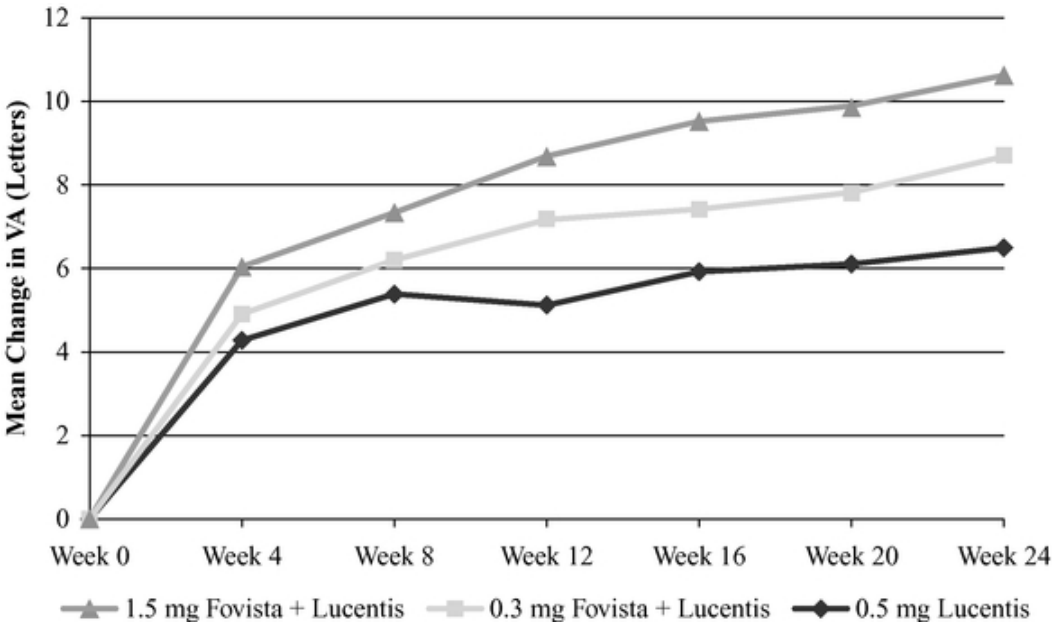
Mean Change in Visual Acuity (VA) from Baseline at 24 Weeks



Measures of Mean Visual Acuity—Mean Change in Visual Acuity From Baseline Over Time

Patients treated with the combination of 1.5 mg of Fovista and Lucentis showed greater improvement in visual acuity from baseline compared to patients treated with Lucentis monotherapy at week four and at each subsequent four-week assessment. In addition, the relative magnitude of visual benefit favoring the combination of 1.5 mg of Fovista and Lucentis increased over the study period. The graph below sets forth the mean change in visual acuity from baseline for each treatment group over the course of the trial.

Mean Change in Visual Acuity (VA) from Baseline Over Time



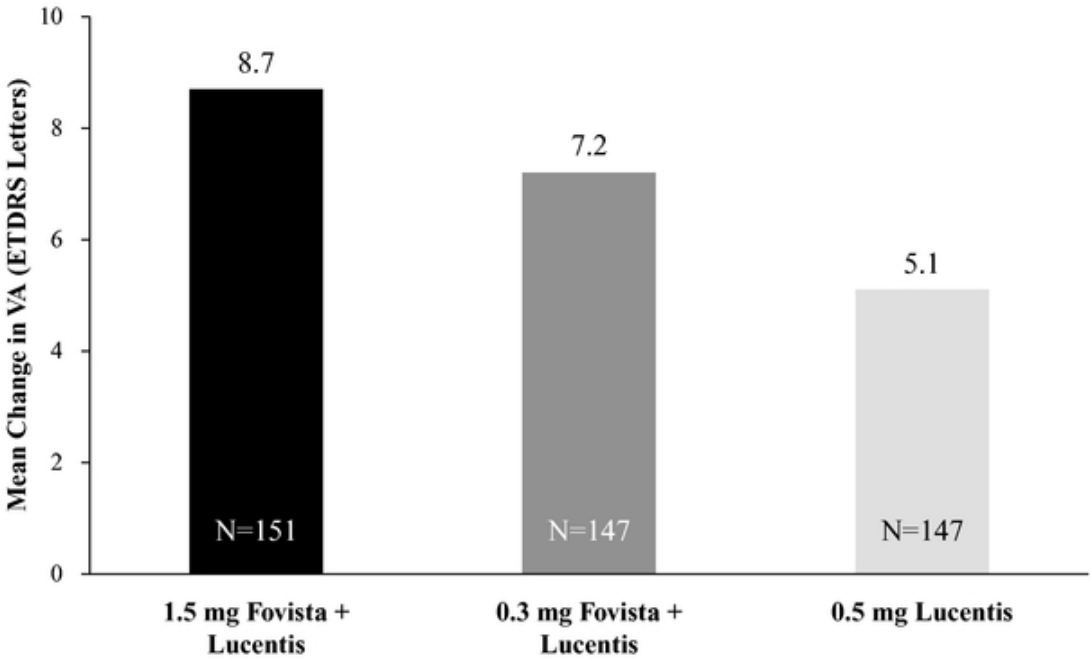
We believe that the divergence of the efficacy curves suggests an increasing relative benefit in visual outcome for the combination of 1.5 mg of Fovista and Lucentis over time compared to Lucentis monotherapy. In addition, we believe that the relative visual benefit of the combination of 1.5 mg of Fovista and Lucentis compared to the relative visual benefit of the combination of 0.3 mg of Fovista and Lucentis at all time points exhibits a dose-response curve in which the response to treatment increases with higher drug concentrations of Fovista.

Measures of Mean Visual Acuity—Secondary Endpoints

We evaluated measures of visual outcomes as secondary endpoints. Results from secondary endpoints are used to help interpret the primary result of the trial and to provide information for future research and clinical development. However, the statistical analysis plan for our Phase 2b clinical trial was not designed to establish and, as a result, we could not and did not demonstrate, statistical significance with respect to these secondary endpoints. Accordingly, only descriptive analyses and trends for secondary endpoints are presented below.

Mean Change in Visual Acuity from Baseline at 12 Weeks. We observed differences on the secondary endpoint of mean change in visual acuity from baseline at the 12 week time point favoring the combination of 1.5 mg of Fovista and Lucentis compared to Lucentis monotherapy. At 12 weeks, patients receiving the combination of 1.5 mg of Fovista and Lucentis gained a mean of 8.7 ETDRS letters compared to patients receiving Lucentis monotherapy who gained a mean of 5.1 ETDRS letters. The graph below sets forth the results of this secondary endpoint of visual acuity at 12 weeks.

Mean Change in Visual Acuity (VA) from Baseline at 12 Weeks



Proportion of Patients Gaining 15 or More Letters from Baseline at 12 Weeks and at 24 Weeks. We observed differences in the proportion of patients that showed improvement of 15 ETDRS letters, or three lines, or better in visual acuity favoring the combination of 1.5 mg of Fovista and Lucentis compared to Lucentis monotherapy both at 12 weeks and at 24 weeks of treatment.

The table below sets forth at 12 weeks and 24 weeks the number of patients in the treatment group and the percentage of patients in such treatment group who gained the specified number of lines in visual acuity and the percentage of patients whose final visual acuity improved to the specified level.

Proportion of Patients Gaining 15 or More ETDRS Letters

Arm	# (%) of Patients Gaining [3] 15 letters at Week 12	# (%) of Patients Gaining [3] 15 letters at Week 24
1.5 mg Fovista + Lucentis	48 (31.8)%	59 (39.1)%
0.3 mg Fovista + Lucentis	31 (21.1)%	49 (33.3)%
0.5 mg Lucentis	33 (22.4)%	50 (34.0)%

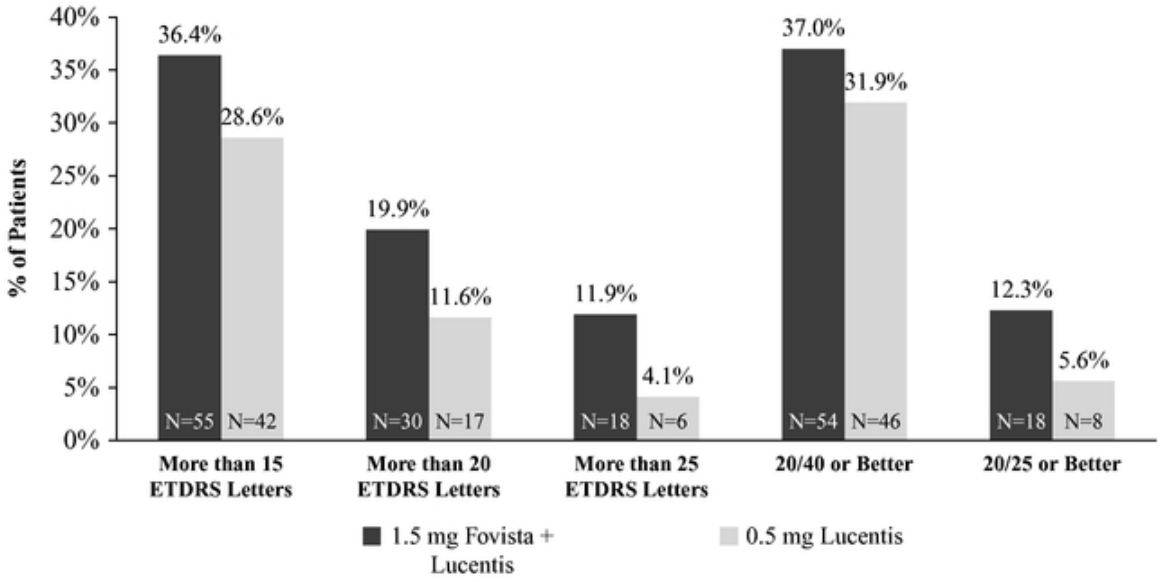
Measures of Mean Visual Acuity—Clinically Relevant Retrospective Analyses

We performed additional retrospective analyses of visual acuity measures that were not pre-specified primary or secondary endpoints in our Phase 2b clinical trial design. Although a retrospective analysis performed after unblinding trial results can result in the introduction of bias, we believe that these retrospective analyses may further support the results from our primary endpoint and the anti-neovascularization element of our proposed mechanism of action for Fovista.

Retrospective Analysis of Visual Gain. We observed differences in the proportion of patients that showed improvement when measured by the number of lines of improvement in visual acuity from baseline, referred to as final visual acuity, favoring the combination of 1.5 mg of Fovista and Lucentis compared to Lucentis monotherapy. The graphs below set forth for each of these two treatment groups

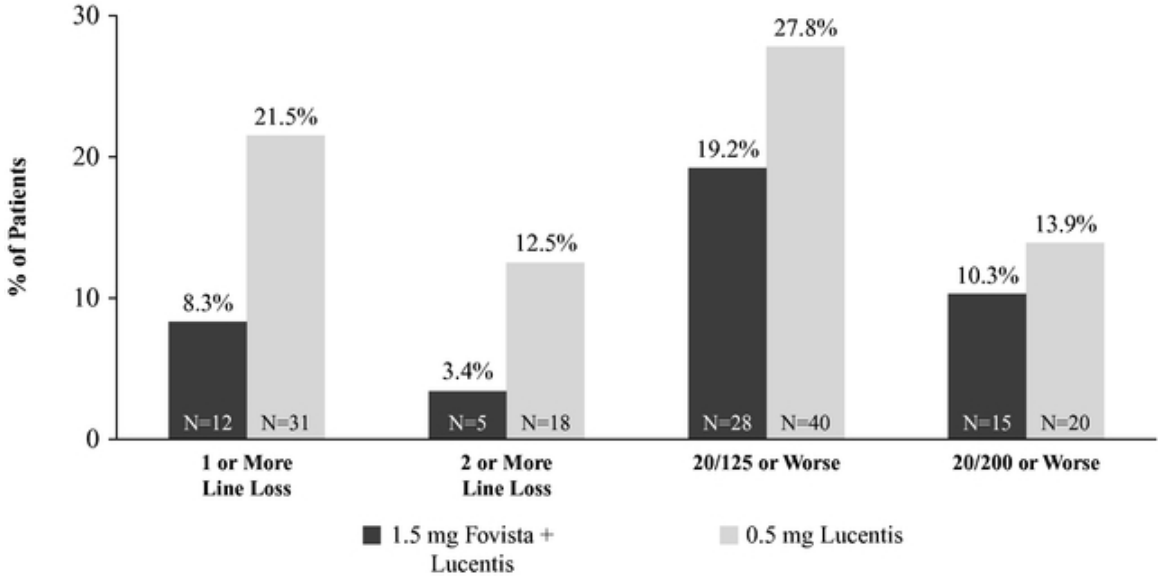
at 24 weeks the percentage of patients in such treatment group who gained the specified number of lines in visual acuity and the percentage of patients whose final visual acuity improved to the specified level.

Visual Gain at 24 Weeks



Retrospective Analysis of Visual Loss. We observed differences in loss of visual acuity from baseline favoring the combination of 1.5 mg of Fovista and Lucentis compared to Lucentis monotherapy. The graphs below set forth for each of these two treatment groups the percentage of patients in such treatment group who lost the specified number of lines in visual acuity and the percentage of patients whose final visual acuity declined to the specified level.

Visual Loss at 24 Weeks



Measures of Anatomical Changes—Secondary Endpoint

We evaluated one measure of anatomical change as a secondary endpoint. Results from secondary endpoints are used to help interpret the primary result of the trial and to provide information for future research and clinical development. However, the statistical analysis plan for our Phase 2b clinical trial was not designed to establish and, as a result, we could not and did not demonstrate, statistical significance with respect to this secondary endpoint. Accordingly, only descriptive analyses and trends for this secondary endpoint are presented below.

Mean Change in Area of Choroidal Neovascularization from Baseline at 24 Weeks. In our Phase 2b clinical trial, the mean change in area of choroidal neovascularization, or CNV, from baseline at 24 weeks as determined by review of fluorescein angiograms was greater in patients treated with Lucentis monotherapy than in patients treated with the combination of 1.5 mg of Fovista and Lucentis. We believe that the inclusion of both larger and smaller CNV sizes in the single analysis of this secondary endpoint had the potential to create a distortion in the analysis of the mean change in area of CNV. This is because the average level of regression, as numerically measured, was approximately tenfold greater in the large CNV size patient group compared to the small CNV size patient group. The treatment group with the greater number of patients with larger CNV sizes will show a markedly larger amount of regression on average. That was the case in our Phase 2b trial in which the Lucentis monotherapy group had a greater proportion of patients with large CNV sizes compared to the group treated with a combination of 1.5 mg of Fovista and Lucentis. Therefore, as discussed in more detail below, we performed retrospective analyses by creating subgroups based on the size of CNV at baseline.

Measures of Anatomical Changes—Retrospective Analyses

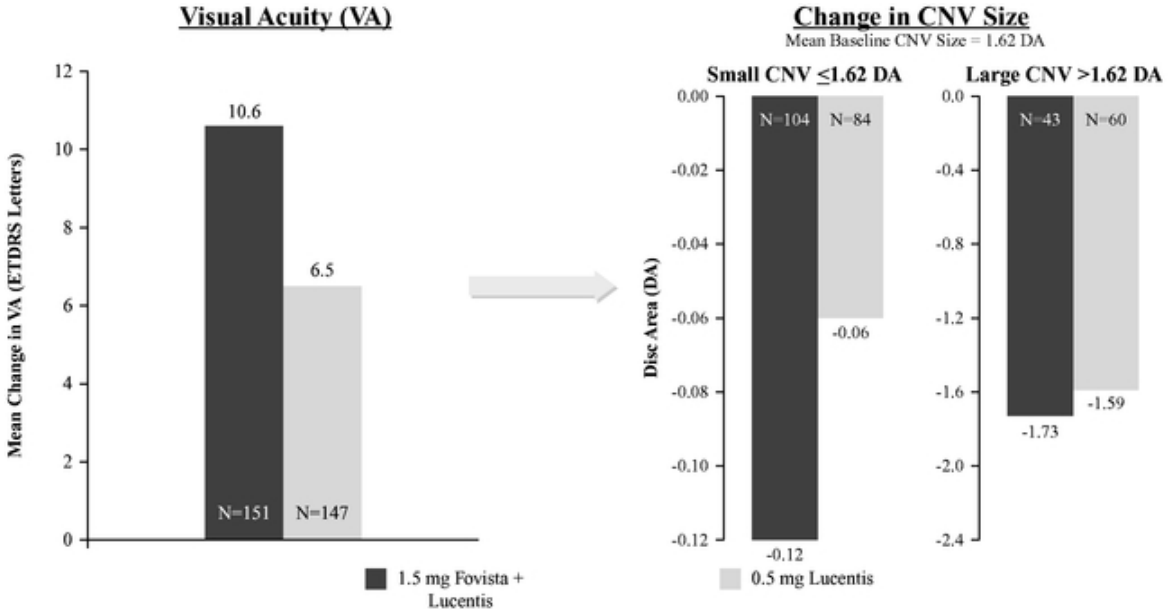
We performed retrospective analyses of anatomical changes, based on choroidal neovascularization and subretinal hyper-reflective material, or SHRM, that were not pre-specified primary or secondary endpoints in the trial design. Although a retrospective analysis performed after unblinding trial results can result in the introduction of bias, we believe that these retrospective analyses may further support the results from our primary endpoint and the anti-neovascularization element of our proposed mechanism of action for Fovista.

Retrospective Analysis of Choroidal Neovascularization. We performed several retrospective analyses of neovascular regression by creating subgroups based on CNV sizes. Size of CNV is measured in units called disc area. A disc area is the size of the area of the retina where a standard sized optic nerve emerges. We determined that the mean CNV size for all patients in the Phase 2b clinical trial at baseline was 1.62 disc areas. We created two subgroups of patients based on mean CNV size at baseline. One subgroup of patients, referred to as the large CNV size patients, had initial CNV size greater than 1.62 disc areas. The other subgroup of patients, referred to as the small CNV size patients, had initial CNV size of less than or equal to 1.62 disc areas.

We believe the results described below of our retrospective analyses of mean change in area of choroidal neovascularization from baseline at 24 weeks determined by review of fluorescein angiograms in patients treated with the combination of 1.5 mg of Fovista and Lucentis compared to patients receiving Lucentis monotherapy may support the anti-neovascularization element of our proposed mechanism of action for Fovista. We included in these retrospective analyses only those patients whose CNV size we were able to assess both at baseline and at 24 weeks.

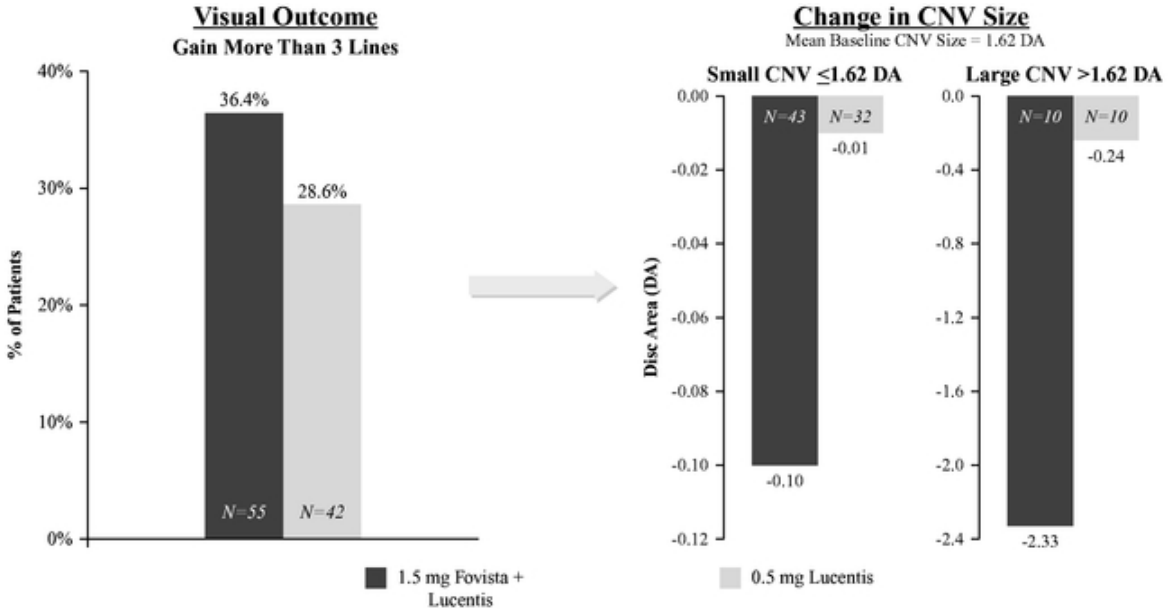
Patients in both the large CNV size patient subgroup and small CNV size patient subgroup showed greater reductions in the size of choroidal neovascularization from baseline when treated with the combination of 1.5 mg of Fovista and Lucentis as compared to patients in the applicable subgroup receiving Lucentis monotherapy. The graphs below set forth the results of this subgroup analysis.

Mean Change in Area of CNV at 24 Weeks



In addition, we performed a further retrospective subgroup analysis of patients who experienced a visual gain of more than three lines from baseline after 24 weeks of treatment. Both large CNV size patients and small CNV size patients treated with the combination of 1.5 mg of Fovista and Lucentis showed a marked reduction in the average size of choroidal neovascularization from baseline when compared to large CNV size patients and small CNV size patients treated with Lucentis monotherapy. The graphs below set forth the results of this subgroup analysis.

Mean Change in Area of CNV at 24 Weeks
in Patients with Visual Gain of More Than 3-Lines

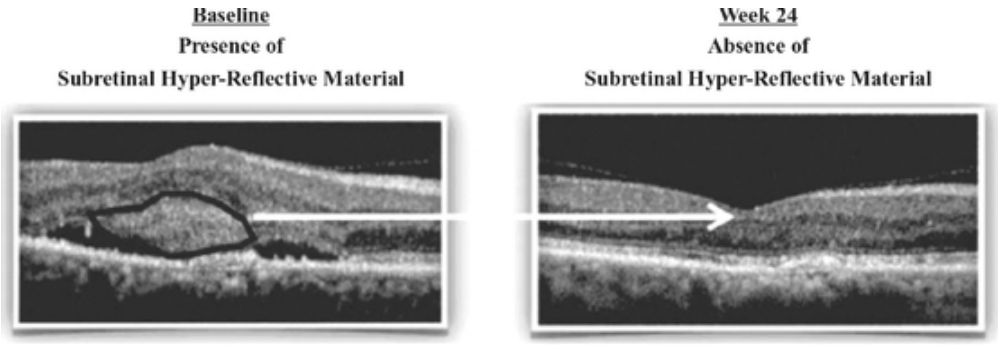


Retrospective Analysis of Subretinal Hyper-Reflective Material. We performed a retrospective review of SD-OCT images of patients who participated in the trial without regard to baseline size of choroidal neovascularization. SD-OCT is the imaging technique most widely used today in clinical practice for the evaluation of wet AMD. Unlike fluorescein angiograms, SD-OCT images show a cross-sectional view of the retina that permits excellent resolution of the space under the retina and at the RPE-choroid interface where the neovascularization of wet AMD is present. The presence of subretinal hyper-reflective material is thought by many experts to indicate the presence of the CNV lesion. The subsequent resolution of subretinal hyper-reflective material is thought to correlate with regression of the CNV lesion.

In our retrospective analysis, masked readers trained in the reading of the SD-OCT retinal images assessed the retinal images of patients who participated in the trial for the presence of subretinal hyper-reflective material at baseline and at 24 weeks. We conducted this retrospective analysis based on the SD-OCT retinal images which were read for each patient group at baseline and at week 24. The analysis at week 24 included only patients who completed the study and had SD-OCT retinal images acceptable for analysis.

Patients treated with the combination of 1.5 mg of Fovista and Lucentis exhibited greater resolution of subretinal hyper-reflective material from baseline compared to patients treated with Lucentis monotherapy. In addition, based on our review of SD-OCT images, patients who experienced a visual gain of more than three lines from baseline at 24 weeks and were treated with the combination of 1.5 mg of Fovista and Lucentis exhibited greater resolution of subretinal hyper-reflective material from baseline than patients who experienced a similar visual gain and were treated with Lucentis monotherapy. The graphs below set forth for each of these two treatment groups the percentage of patients in such treatment group who had subretinal hyper-reflective material at baseline and the percentage of those patients who exhibited an absence of such subretinal hyper-reflective material at 24 weeks.

Subretinal Hyper-Reflective Material



All Patients	Presence of Subretinal Hyper-Reflective Material at Baseline	Absence of Subretinal Hyper-Reflective Material at Week 24
1.5 mg Fovista + Lucentis	92.8% (N=141)	32.4% (N=47)
0.5 mg Lucentis	93.2% (N=138)	21.5% (N=31)

Patients With Significant Visual Gain (>3-Lines)	Presence of Subretinal Hyper-Reflective Material at Baseline	Absence of Subretinal Hyper-Reflective Material at Week 24
1.5 mg Fovista + Lucentis	87.3% (N=48)	53.8% (N=28)
0.5 mg Lucentis	90.5% (N=38)	38.1% (N=16)

We believe the results of our retrospective analysis of SD-OCT retinal images at baseline and at 24 weeks in patients treated with the combination of 1.5 mg of Fovista and Lucentis compared to patients receiving Lucentis monotherapy supports the anti-neovascularization element of our proposed mechanism of action for Fovista.

Retrospective Analysis of Subretinal Fibrosis Development of subretinal fibrosis is typically associated with poor visual outcomes in wet AMD patients. We have undertaken a retrospective analysis of retinal images from patients who had vision loss or lack of visual gain at 24 weeks following treatment with either 1.5 mg of Fovista in combination with 0.5 mg of Lucentis or Lucentis monotherapy in our Phase 2b clinical trial to investigate the development of subretinal fibrosis in these patients. Our initial retrospective assessment of retinal images of these patients indicates a reduction, on average, in the development and severity of subretinal fibrosis at the 24 week time point in patients treated with the combination of 1.5 mg of Fovista and Lucentis compared to patients receiving Lucentis monotherapy. We engaged independent third-party retinal experts to review these images to assess the development of subretinal fibrosis in this group of patients. In October 2014, findings from an independent subgroup analysis assessing the development and progression of subretinal fibrosis in our Phase 2b clinical trial were presented at the American Academy of Ophthalmology annual meeting. This retrospective analysis showed that the mean change in severity of subretinal fibrosis from baseline to conclusion of the study at 24 weeks was 0.97 for the Fovista (1.5 mg) combination therapy group as compared to 2.0 for the Lucentis monotherapy group (P = 0.003), based on a five-step grading scale developed by Dr. Usha Chakravarthy, an internationally recognized key opinion leader. At 24 weeks, approximately twice the number of patients on standard of care anti-VEGF monotherapy (54%) were noted to have progression of subretinal fibrosis compared to the Fovista (1.5 mg) combination therapy group (27%). In eyes without any subretinal fibrosis at baseline, subretinal fibrosis developed in 10% of patients who received Fovista (1.5 mg) combination therapy, compared to 51% of the patients who received monotherapy Lucentis. We believe such findings may provide support for the anti-fibrotic element of our proposed mechanism of action for Fovista.

In May 2015, we completed enrollment in our OPH1005 Fovista Anti-Fibrosis Study. See "—Potentially Expanding the Use of Fovista—Fovista Expansion Studies in Wet AMD" below for a description of Dr. Chakravarthy's fibrosis grading scale, the OPH1005 Fovista Anti-Fibrosis Study and the interim data for two subgroups of patients in this trial.

Safety

Fovista was generally well tolerated in the Phase 2b trial at both doses tested in combination with Lucentis. We did not observe any cases of infection inside the eye, or endophthalmitis. We observed one case of severe intraocular inflammation among the patients treated with 0.3 mg of Fovista in combination with Lucentis and no such cases among the patients treated with 1.5 mg of Fovista in combination with Lucentis. We did not observe any significant imbalances among treatment groups in the incidence of ocular adverse events or systemic adverse events, including cardiovascular events or stroke. The number of patients in our Phase 2b clinical trial with one or more serious systemic adverse events, the most common systemic serious adverse events in this trial organized by MedDRA system

organ class, a standard method of reporting adverse events, and by antiplatelet trialists' collaboration events, a standard method of reporting cardiovascular adverse events, are set forth in the table below.

	Monotherapy Lucentis N = 148	0.3 mg Fovista + Lucentis N = 149	1.5 mg Fovista + Lucentis N = 152
Patients With One or More Systemic Serious Adverse Events	11 (7.4)%	13 (8.7)%	9 (5.9)%
MedDRA System Organ Class(1)			
Cardiac Disorders	2 (1.4)%	2 (1.3)%	2 (1.3)%
Gastrointestinal Disorders	1 (0.7)%	2 (1.3)%	3 (2.0)%
Infections	1 (0.7)%	2 (1.3)%	0 (0.0)%
Musculoskeletal Disorders	1 (0.7)%	0 (0.0)%	2 (1.3)%
Neoplasms	3 (2.0)%	3 (2.0)%	1 (0.7)%
Nervous System Disorders	3 (2.0)%	1 (0.7)%	0 (0.0)%
Respiratory Disorders	0 (0.0)%	3 (2.0)%	2 (1.3)%
Any Antiplatelet Trialists' Collaboration (APTC) Event			
Non-Fatal Myocardial Infarction	0 (0.0)%	0 (0.0)%	0 (0.0)%
Non-Fatal Stroke	2 (1.4)%	1 (0.7)%	0 (0.0)%
Vascular Death	1 (0.7)%	0 (0.0)%	0 (0.0)%

(1) Data are listed only for system organ classes with three or more events.

There was one serious adverse event in the study eye in each of the treatment groups. The serious adverse event was different among each of the treatment groups as shown in the table below.

	Monotherapy Lucentis N = 148	0.3 mg Fovista + Lucentis N = 149	1.5 mg Fovista + Lucentis N = 152
Ocular Serious Adverse Events	1 (0.7)%	1 (0.7)%	1 (0.7)%
Corneal Erosion	0 (0.0)%	0 (0.0)%	1 (0.7)%
Uveitis	0 (0.0)%	1 (0.7)%	0 (0.0)%
Visual Acuity Reduced	1 (0.7)%	0 (0.0)%	0 (0.0)%

The most common adverse events in the study eye are set forth in the table below.

Ocular Adverse Events Reported in Study Eye in 5% or More of Patients in Any Arm

	Monotherapy Lucentis N = 148	0.3 mg Fovista + Lucentis N = 149	1.5 mg Fovista + Lucentis N = 152
Patients with One or More Adverse Events	75 (50.7)%	79 (53.0)%	79 (52.0)%
Conjunctival hemorrhage	37 (25.0)%	34 (22.8)%	51 (33.6)%
Punctate keratitis	10 (6.8)%	19 (12.8)%	15 (9.9)%
Eye pain	8 (5.4)%	10 (6.7)%	13 (8.6)%
Conjunctival hyperemia	13 (8.8)%	9 (6.0)%	13 (8.6)%
Subretinal fibrosis	8 (5.4)%	6 (4.0)%	5 (3.3)%
Intraocular pressure increase	4 (2.7)%	8 (5.4)%	9 (5.9)%

Most of the common ocular adverse events in this trial were related to the intravitreal preparation and injection procedure and were not drug related. These intravitreal adverse events, as reflected in the table above, included conjunctival hemorrhage, punctate keratitis, eye pain and conjunctival hyperemia. Most adverse events of increased intraocular pressure occurred after injection, were transient, were

related to the injection and were treated and resolved the same day. Mean intraocular pressure in each treatment group returned to pre-injection level at the next assessment, including at the end of the trial.

Ongoing Phase 3 Clinical Program for Fovista Combination Therapy for Wet AMD

Our pivotal Phase 3 clinical program consists of three separate Phase 3 clinical trials, two of which are evaluating Fovista in combination with Lucentis and the other of which is evaluating Fovista in combination with Avastin or Eylea. We plan to enroll a total of approximately 1,866 patients in more than 250 centers internationally across the three trials. We completed patient enrollment in one of the Fovista Phase 3 Lucentis Trials in May 2015 and in the other Fovista Phase 3 Lucentis Trial in November 2015. We are continuing to actively enroll patients in the Fovista Phase 3 Eylea/Avastin Trial and expect to complete enrollment in 2016 based on current enrollment estimates. We expect initial, top-line data from both of the Fovista Phase 3 Lucentis Trials to be available during the fourth quarter of 2016, with initial, top-line data from the Fovista Phase 3 Eylea/Avastin Trial to be available in 2017 based on current enrollment estimates.

The primary efficacy endpoint of our Phase 3 clinical trials is mean change in visual acuity from baseline for Fovista and anti-VEGF combination therapy compared to anti-VEGF monotherapy at 12 months. Secondary efficacy endpoints for our Phase 3 clinical trials will include the following:

- proportion of patients in each treatment group gaining 20 or more ETDRS letters from baseline at month 12; and
- proportion of patients in each treatment group losing 5 or more ETDRS letters from baseline at month 12; and
- other visual and anatomical measures.

The two Fovista Phase 3 Lucentis Trials are evaluating the safety and efficacy of 1.5 mg of Fovista administered in combination with Lucentis compared to Lucentis monotherapy. The Fovista Phase 3 Eylea/Avastin trial is evaluating the safety and efficacy of 1.5 mg of Fovista administered in combination with each of Eylea or Avastin compared to Eylea or Avastin monotherapy. All of these Phase 3 clinical trials incorporate significant aspects from the design of our completed Phase 2b clinical trial.

The protocols for our Phase 3 clinical trials and other supporting information are subject to review by the FDA and regulatory authorities outside the United States. The FDA is not obligated to comment on our protocols within any specified time period or at all or to affirmatively clear or approve our Phase 3 clinical program. We submitted the protocols for our Phase 3 clinical trials to the FDA in July 2013. To date, we have not received any comments on the design of our Phase 3 clinical program from the FDA. The FDA or other regulatory authorities may request additional information, require us to conduct additional non-clinical trials or require us to modify our proposed Phase 3 clinical program, including its endpoints, patient enrollment criteria or selection of anti-VEGF drugs, to continue such program once initiated. In September 2013, the FDA notified us that we have obtained fast track designation for Fovista for the treatment of wet AMD.

Outside the United States, we have obtained all of the necessary country approvals to proceed with our Phase 3 trials except for the Brazilian approval required to proceed with our Fovista Phase 3 Eylea/Avastin Trial, which we are pursuing. In the European Union, in addition to filing in selected countries with national competent authorities responsible for approving clinical trial applications, we have had interactions regarding our planned application for marketing approval with the EMA's CHMP, which is the committee responsible for preparing opinions on questions concerning medicines for human use. The CHMP informed us that the final label for Fovista, if it receives marketing approval, may be required to specify the licensed anti-VEGF drugs that were studied in combination with Fovista, given

that Avastin is not approved for intravitreal use, rather than a label specifying Fovista for use in combination with any anti-VEGF drug.

We expect initial, top-line data from both of the Fovista Phase 3 Lucentis Trials to be available during the fourth quarter of 2016, with initial, top-line data from the Fovista Phase 3 Eylea/Avastin Trial to be available in 2017 based on current enrollment estimates. We plan to initially submit an NDA to the FDA, for Fovista in combination with Lucentis based upon data from the two Fovista Phase 3 Lucentis Trials and subsequently submit an amendment to the NDA with data from the Fovista Phase 3 Eylea/Avastin Trial, subject to a favorable data outcome from these trials. Alternatively, we may choose to file a supplemental NDA for Fovista in combination with Eylea or Avastin following FDA review of the NDA for Fovista in combination with Lucentis. In addition, we continue to evaluate various filing strategies for marketing authorizations in Europe and other ex-U.S. territories with Novartis, our ex-U.S. commercialization partner for Fovista.

We believe that clinically meaningful favorable results from two of our Phase 3 clinical trials in which a combination of 1.5 mg of Fovista with an anti-VEGF drug achieves superiority over anti-VEGF drug monotherapy with statistical significance on the primary endpoint of mean change in visual acuity from baseline at 12 months, together with the results of our Phase 1 and Phase 2b clinical trials, will be sufficient to support applications for marketing approval of Fovista for the treatment of wet AMD in the United States and the European Union. However, if favorable results from two of our three Phase 3 clinical trials include results from only one of our Phase 3 clinical trials evaluating the safety and efficacy of a combination of 1.5 mg of Fovista and Lucentis, the FDA, the EMA or other regulatory authorities may not grant, or may request additional information, including the results of additional clinical trials, prior to granting, marketing approval for Fovista.

We expect to submit our applications for marketing approval based on data regarding the primary efficacy endpoint from our Phase 3 clinical trials after 12 months of treatment. We also expect that 12-month safety data will satisfy the safety database requirements for submission of our applications. In accordance with their protocols, our Phase 3 clinical trials will continue after such submissions. We expect that each of the FDA and the EMA will review any additional safety and efficacy data that is available from the ongoing Phase 3 clinical trials, or any other clinical trials involving Fovista, at the time of the FDA's or EMA's review of our applications for marketing approval.

For each patient enrolled in the Phase 3 clinical trials, we are measuring the patient's best-corrected visual acuity prior to treatment to establish a baseline against which subsequent visual acuity changes after treatment can be compared. The protocols for each of these trials provide that patients be assessed monthly. The administration of treatment varies among the three trials. In the two Fovista Phase 3 Lucentis Trials, patients are treated monthly for the first 12 months. In one of the two Fovista Phase 3 Lucentis Trials, during the second 12 months, patients will be treated every other month and can be retreated during the intervening months in accordance with specific retreatment criteria set forth in the protocol for the trial based on visual acuity and imaging. In the second Fovista Phase 3 Lucentis Trial, during the second 12 months treatment will be administered based upon the stability of the patient's visual acuity, ophthalmic examination and imaging consistent with EU labeling of Lucentis. These two Fovista Phase 3 Lucentis Trials build upon and incorporate significant aspects from the design of our Phase 2b clinical trial of Fovista administered in combination with Lucentis while evaluating the administration of Fovista combination therapy over a longer overall treatment period in a greater number of patients.

In each of the Fovista Phase 3 Lucentis Trials, we randomly assigned patients to one of two treatment groups with approximately 311 patients in each group. Treatment for the two groups in each of these two trials is as follows:

- Patients in the first group receive intravitreal injections of 1.5 mg of Fovista following intravitreal injections of 0.5 mg of Lucentis.

- Patients in the second group, which serves as the control arm of the trial, receive sham injections following intravitreal injections of 0.5 mg of Lucentis.

The Fovista Phase 3 Eylea/Avastin Trial has a similar trial design. In this third trial, we are randomly assigning patients to one of two treatment groups with approximately 311 patients in each group. Treatment for the two groups in this trial is as follows:

- Patients in the first group are further randomized in a 1:1 ratio to receive intravitreal injections of one of the following treatments:
  - 1.5 mg of Fovista following intravitreal injections of 1.25 mg of Avastin; or
  - 1.5 mg of Fovista following intravitreal injections of 2.0 mg of Eylea.
- Patients in the second group, which serves as the control arm of the trial, are further randomized in a 1:1 ratio to receive one of the following treatments:
  - sham injections following intravitreal injections of 1.25 mg of Avastin; or
  - sham injections following intravitreal injections of 2.0 mg of Eylea.

The patients randomized to receive Avastin are treated monthly for 24 months and the patients randomized to receive Eylea are treated every month for the first three months followed by every other month thereafter.

We have made no meaningful changes to the inclusion and exclusion criteria in these Phase 3 clinical trials from those we used in our Phase 2b clinical trial. However, we have modified the methodology used to determine a patient's eligibility under certain of the inclusion and exclusion criteria for our Phase 3 clinical trials as compared to our Phase 2b clinical trial. For our Phase 2b trial, we assessed patient eligibility based on the fluorescein angiographic pattern of the choroidal neovascular membrane. Since the most commonly employed modality for imaging, diagnosing and managing neovascular AMD is currently SD-OCT, we have modified the methodology to determine the patient's eligibility to include SD-OCT criteria. To ensure that uniform criteria are applied in characterizing patients' neovascular lesions, we have engaged a centralized reading center to review the SD-OCT, fluorescein angiograms and fundus images of each patient's affected eye. Fundus images are photos of the back of the eye taken using a camera attached to a specialized, low-power microscope. These photos, which are often in color, show various elements of the back of the eye, including the retina, retinal vasculature, optic disc, macula and fovea. For our Phase 3 clinical trials, the reading center uses all three of these imaging modalities, fluorescein angiography, SD-OCT and fundus images, to assess the eligibility of patients based on the presence of abnormal new blood vessels relative to the RPE at the time of enrollment.

SD-OCT utilizes specialized light scattering through the biological tissues and obtains high resolution retinal tissue images using a specialized camera. Considerable technological advances in the latest generation of SD-OCT machines have resulted in marked improvement in retinal image resolution. Currently there is a shift toward using the latest, high-resolution SD-OCT models in most retinal focused practices. The use of fluorescein angiography for imaging has been replaced by SD-OCT in the United States and the European Union as the most common standard for retinal imaging in wet AMD management.

SD-OCT images show a cross sectional view of the retina permitting enhanced resolution of the space under the retina where the neovascularization is typically present, along with assessment of the relative location of the neovascularization with respect to the RPE layer. This location of the neovascular lesion relative to the RPE, that is, above or below the RPE, is more precise with the SD-OCT. Assessment of such characteristics of the neovascular lesion by fluorescein angiography has inherent variability between certified readers at the reading centers and is often reflected as

inconsistency in subtype determinations. Fluorescein angiography continues to be utilized because of its high sensitivity for the detection of the presence of an active neovascular lesion. We believe that use of a centralized reading center and the latest imaging technologies enables us to confirm patient eligibility and properly classify neovascular characteristics and the associated leakage in an accurate and standardized manner prior to enrolling patients in the trial.

Furthermore, as was the case in both our Phase 1 clinical trial and our Phase 2b clinical trial, there is a 30-minute delay in the injection of Fovista after the anti-VEGF drug.

Potential Additional Studies of Fovista for Wet AMD Patients as Part of Our Phase 3 Clinical Program

Each element of our Phase 3 clinical trial design has the potential to affect the label for Fovista if we receive marketing approval from the FDA, the EMA or another regulatory authority. In each of the cases described below, if we determine that a related change to the approved label has the potential to increase the use or market acceptance of Fovista, we likely would conduct an appropriate study in a separate pre-marketing approval clinical trial or in a post-marketing approval clinical trial.

Lesion Characteristics. Treating physicians typically do not use subtype categorization as a diagnostic tool for choosing among pharmacological agents for treating wet AMD. The process for determining whether or not a wet AMD patient has pure occult choroidal neovascularization has evolved considerably in the United States and European Union over the last five years, with SD-OCT replacing fluorescein angiography as the diagnostic standard. There is significant variability and inconsistency among physicians and reading centers with respect to the determination of the presence and amount of the occult component of lesions using fluorescein angiography. Different reading centers may categorize a patient differently on the basis of the same image if fluorescein angiography is used to assess the occult component of choroidal neovascularization. We believe the use of SD-OCT to assess choroidal neovascularization at the time of enrollment in our Phase 3 clinical trials will alleviate some of the variability and inconsistency inherent in using fluorescein angiography. SD-OCT will be used to assess the characteristics of abnormal new vessels, which historically, using fluorescein angiography, have been associated with the subtype occult neovascularization. SD-OCT is the current standard of imaging of wet AMD patients and we believe that the use of SD-OCT will provide a more precise analysis of the anatomical differences between the various angiographic subtypes of CNV lesions in neovascular AMD. Microscopic examination of retinas taken from deceased patients who suffered from choroidal neovascularization shows that abnormal new blood vessels characterized as occult choroidal neovascularization using fluorescein angiography have similar morphology to those characterized as classic choroidal neovascularization, including pericyte coverage.

The FDA, EMA or other regulatory authority will determine, based on the data we present and the FDA's, EMA's or other regulatory authority's assessment of risks and benefits to patients, whether the label for Fovista, if approved, will exclude its use for the treatment of patients who were not primarily enrolled on the basis of SD-OCT assessment. If we determine that the potential Fovista label may exclude its use for the treatment of patients with certain SD-OCT criteria, we likely would conduct an appropriate clinical trial to evaluate the safety and efficacy of 1.5 mg of Fovista administered in combination with an anti-VEGF drug for the treatment of patients who were excluded on the basis of SD-OCT imaging.

Waiting Period Prior to Injection of Fovista. An intravitreal injection results in an elevation of intraocular pressure, or IOP, which usually is transient. Labels for the currently approved anti-VEGF drugs include descriptions related to monitoring IOP after intravitreal injection of these drugs. We have provided for a delay in the intravitreal injection of Fovista to minimize the risk in our clinical trials of an unacceptable increase in IOP as a result of the amount of the two agents injected. We have not seen any meaningful or sustained increase in IOP in our clinical trials of Fovista to date, and we believe that Fovista likely could be delivered by intravitreal injection immediately after the anti-VEGF

drug without an unacceptable increase in IOP. However, if we apply for marketing approval for Fovista, the FDA, the EMA or other regulatory authorities will determine, based on the data we present and the regulatory authority's assessment of risk to patients, whether the label for Fovista will provide for the administration of Fovista immediately after the anti-VEGF drug, 30 minutes after the anti-VEGF drug or after some other waiting period. If we determine that the potential Fovista label may provide for a waiting period between the administration of the anti-VEGF drug and Fovista, we likely would conduct an appropriate clinical trial to evaluate the safety of administration of Fovista immediately after the administration of the anti-VEGF.

Potentially Expanding the Use of Fovista

Fovista Expansion Studies in Wet AMD

In addition to our ongoing Phase 3 clinical program for Fovista, we have initiated multiple additional clinical trials to evaluate the potential additional benefits of Fovista administered in combination with anti-VEGF drugs in wet AMD patients. We refer to these trials as the Fovista Expansion Studies. They include:

OPH1005 Fovista Anti-Fibrosis Study

Wet AMD patients who develop subretinal fibrosis affecting the central macula, on average, have worse visual outcomes compared to patients who do not develop subretinal fibrosis. Moreover, during the maintenance phase of anti-VEGF treatment, data from multiple third-party clinical trials suggest that patients who receive discontinuous anti-VEGF monotherapy during the maintenance phase of anti-VEGF treatment have suboptimal visual outcomes compared to patients who receive continuous anti-VEGF monotherapy. Discontinuous anti-VEGF monotherapy consists of either *pro re nata*, or PRN, meaning "as needed" based on the physician's assessment, or regular bi-monthly or quarterly dosing regimens. Continuous anti-VEGF monotherapy for Lucentis or Avastin consists of monthly administration or, in the case of Eylea, bi-monthly administration. Moreover, data from these third-party clinical trials also suggest that on average, once patients lose vision following the switch from a continuous regimen to a discontinuous regimen, a subsequent increase in the frequency of anti-VEGF dosing does not appear to improve patient vision to the level achieved prior to switching the regimen.

In preclinical animal models of subretinal fibrosis, inhibition of PDGF has been shown to reduce the amount of scar tissue formation. We believe that the retrospective analysis conducted by independent readers of retinal images of patients in our completed Phase 2b trial with visual loss or lack of visual gain at 24 weeks following treatment with either 1.5 mg of Fovista administered in combination with Lucentis or Lucentis monotherapy is consistent with our hypothesis that Fovista mediated PDGF inhibition may result in inhibition of subretinal fibrosis. See "Completed Phase 2b Clinical Trial of Fovista Combination Therapy for Wet AMD—Retrospective Analysis of Subretinal Fibrosis" above for a discussion of the results of this analysis.

During the third quarter of 2014, we initiated an open-label Phase 2a clinical trial of 1.5 mg of Fovista administered in combination with either Lucentis, Eylea or Avastin, to study subretinal fibrosis in wet AMD patients. Because the objective of the trial was to investigate Fovista combination therapy and subretinal fibrosis, the trial protocol permitted enrollment of a broader range of patients as compared to standard anti-VEGF treatment naïve protocols used in large registration trials. For example, patients with the following characteristics could be enrolled in the trial:

- patients with scarring or fibrosis affecting 50% or more of their total CNV lesion area (so long as scarring or fibrosis was not sub-foveal);
- patients with atrophy affecting 50% or more of their total CNV lesion area (so long as the atrophy was not sub-foveal);

- patients with sub-retinal hemorrhage covering greater than 50% of their total CNV lesion area; and
- patients with baseline visual acuity of up to 20/400.

The enrollment of patients in the trial was based upon investigator discretion and interpretation of the eligibility criteria contained in the protocol. This trial does not have any pre-specified efficacy endpoints as it is an uncontrolled, open-label Phase 2a study with broad patient eligibility criteria, which typically would not permit an adequate efficacy assessment.

The protocol for this trial requires an initial induction phase of six monthly injections of Fovista administered in combination with Lucentis, Eylea or Avastin, followed by a discontinuous regimen of quarterly administrations of Fovista combination therapy. The protocol permits retreatment with Fovista combination therapy during the intervening monthly visits between quarterly administrations if the patient incurs vision loss of at least five ETDRS letters, regardless of any other objective findings. In addition, absent a loss in vision, investigators may decide to retreat at monthly visits in between quarterly administrations based upon increases in hemorrhage and/or intraretinal fluid. We completed enrollment in this trial in May 2015 with a total of 101 patients enrolled. Patients are followed for a 24-month period.

In December 2015 at our R&D Investor Day, we presented initial interim data for a subgroup of patients that had reached the month 14 time point (n=6) and month 13 time point (n=16, inclusive of the six patients reaching month 14) as of a predetermined data collection date approximately six weeks prior to data presentation. The analysis for these 16 patients consisted of visual acuity data, as well as data regarding subretinal fibrosis obtained from fundus images taken at the month 12 time point. To illustrate the broad eligibility criteria for the trial, we presented selected images, including SD-OCT, fundus images and fluorescein angiograms, for ten of the 16 patients.

Fibrosis Data at Month 12 Time Point

Subretinal fibrosis was evaluated based on the assessment of fundus images using a continuous five-step grading system. This grading system was developed by an internationally recognized key opinion leader, Dr. Usha Chakravarthy, Professor, Ophthalmology and Vision Sciences, at the Royal Victoria Hospital (The Belfast Trust) and Queens University of Belfast, Northern Ireland. Dr. Chakravarthy graded the fundus images at baseline and the month 12 time point in a masked fashion. The grading system assigns a numerical score for each fundus image from "0 to 4" as follows:

- "0"—Fibrosis is absent
- "1"—Fibrosis is barely visible
- "2"—Fibrosis is mild
- "3"—Fibrosis is moderate
- "4"—Fibrosis is severe.

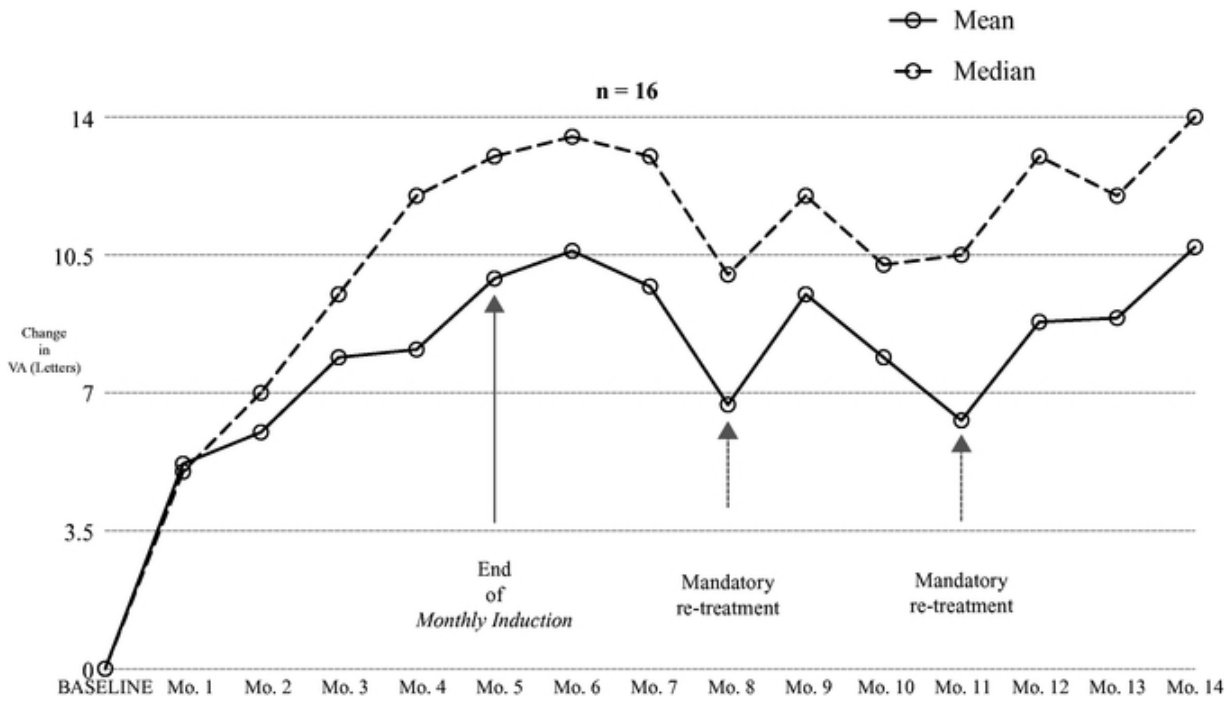
That data revealed that none of the 16 patients who had reached the month 13 time point exhibited development or progression of fibrosis at the month 12 time point. Development or progression of fibrosis is defined as a two-step progression in grading.

Visual Acuity Data for Month 13 and 14 Time Points

Visual acuity was evaluated as the mean and median change in ETDRS letters from baseline. On average, we observed a trend of increasing visual acuity during the induction phase of six continuous monthly administrations, followed by a relative drop in visual acuity in between quarterly administrations during the maintenance phase. In addition, on average, relative improvements in visual acuity were noted at the next monthly visit following retreatment at the protocol-mandated quarterly time points. At the latest evaluated time point in this subgroup of patients, visual acuity had, on average, returned to the approximate level of visual acuity observed at month 6 following the induction phase.

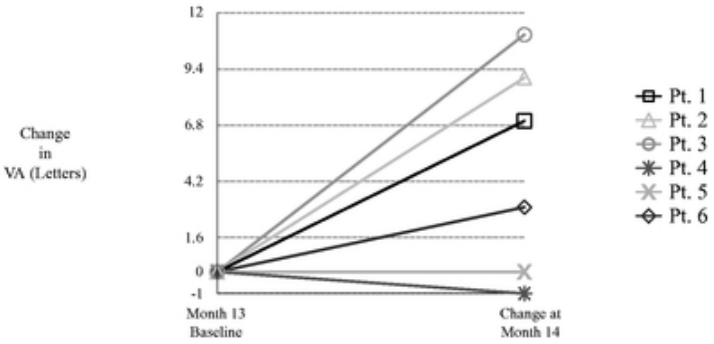
The graph below sets forth the mean and median gain in ETDRS letters from baseline at each month of the study through month 13 for these 16 patients. Both the mean and the median are presented as one patient in this subgroup of 16 patients experienced a significant amount of relative visual loss.

Mean and Median Change in Visual Acuity (VA) from Baseline through Month 13



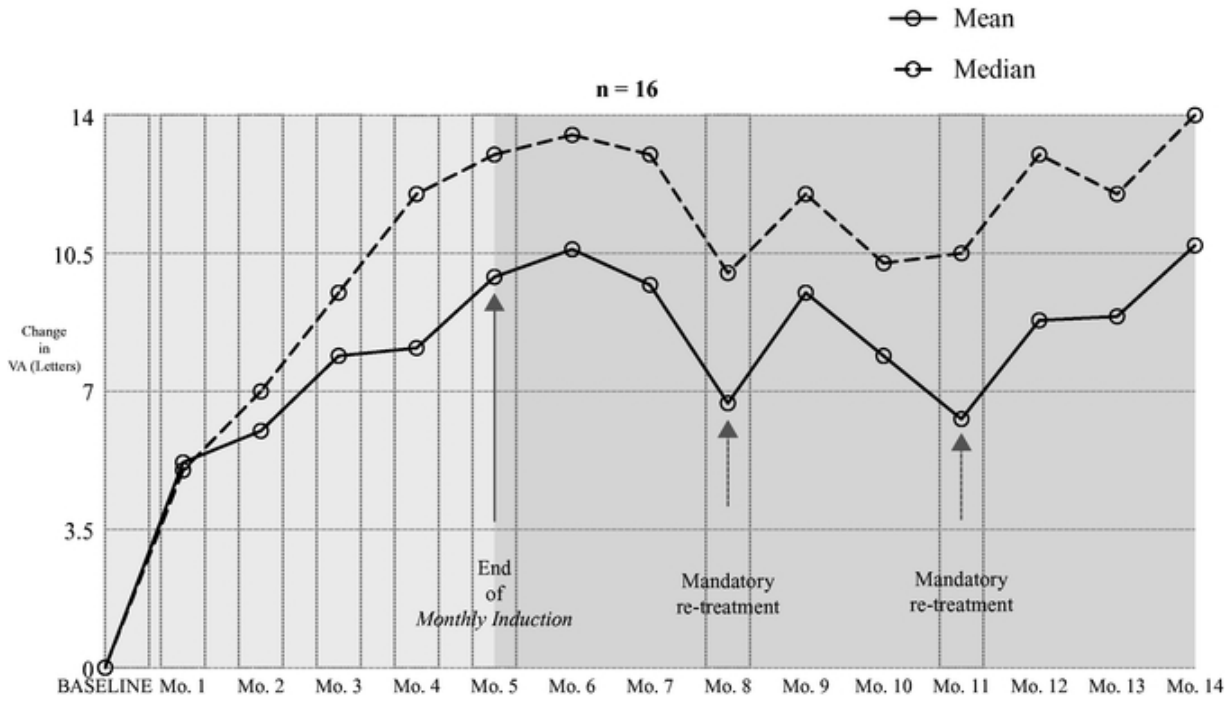
We also presented visual acuity data for the six patients that reached the month 14 time point as of the pre-specified data collection date. The graph below sets forth for these six patients the change in visual acuity, measured in ETDRS letters, from month 13 to month 14.

Change in Visual Acuity (VA) from Month 13 at Month 14



In addition, we also presented a similar visual acuity graph, displaying both mean and median change in visual acuity from baseline, for this subgroup of 16 patients at the 14 month time point based on the last observation carried forward, or LOCF, method to impute missing values. The LOCF method is a method to account for missing values at specific time points for a specific patient by carrying forward the value observed at the last time point for which data is available for that specific patient. In the case of this trial, data were missing for the month 14 time point for the ten patients who had not yet reached that time point. The graph below sets forth for these 16 patients both the mean and median gain in ETDRS letters from baseline at each month of the study through month 14 using the LOCF method.

Mean and Median Change in Visual Acuity (VA) from Baseline through Month 14
LOCF Method



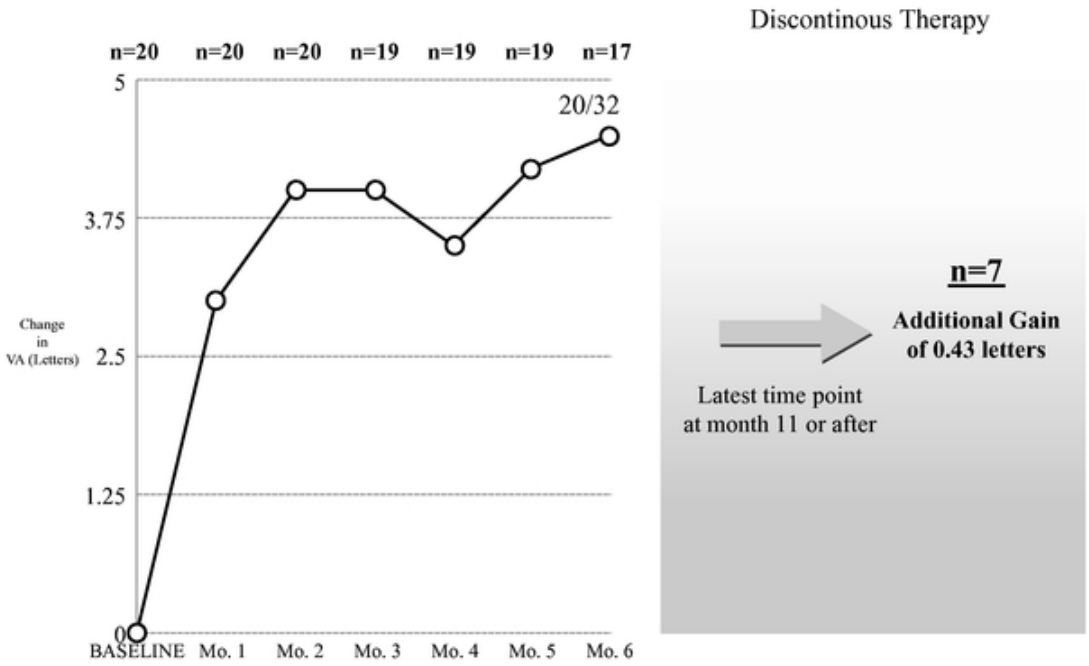
The analysis of the interim data presented from this open-label trial was not pre-specified in the trial protocol. The foregoing data consisted of data for only 16 of 101 patients enrolled, was preliminary in nature and, as with any interim data collected from a clinical trial, may be inconsistent with, or not representative of the final data outcome from the trial. Given the small sample size and

lack of control group, we believe inferences with respect to efficacy or safety findings at the time points for which data were presented are challenging to assess and may not be reliable. However, relative to published data from other clinical trials regarding visual outcomes for wet AMD patients receiving discontinuous administration of anti-VEGF monotherapy during the maintenance phase, we believe the data from this trial suggests a potential role for Fovista combination therapy to reduce the treatment burden for wet AMD patients.

Visual Acuity Data for Patients with Baseline 20/40 Vision or Better

As part of the R&D Investor Day, a key opinion leader also presented real world data outcomes collected from U.S. electronic medical records showing that wet AMD patients who typically receive discontinuous anti-VEGF monotherapy, on average, lose vision at the one year time point. These data are consistent with published data from European studies. In addition to the data for the 16-patient subgroup described above, at R&D Investor Day, we presented additional data from our OPH1005 Anti-Fibrosis Study for a subgroup of 20 patients with baseline vision of 20/40 or better. These patients were followed prospectively based on visual acuity criteria. Seventeen of these patients reached the month 6 time point at the time of data collection. These patients experienced a mean improvement in visual acuity of 4.5 ETDRS letters, equivalent to 20/32 vision, at the month 6 time point. In addition, seven of these patients reached the month 11 time point and experienced an average additional gain of 0.43 ETDRS letters as compared to the month 6 time point. This data is summarized in the following graph.

Mean Change in Visual Acuity (VA) from Baseline
for Patients with Baseline 20/40 Vision or Better



We believe Fovista combination therapy may result in better outcomes in this subgroup of patients with 20/40 or better vision compared to what the real world outcome studies suggest. However, given the small sample size and lack of control group, we believe inferences with respect to efficacy or safety findings at the time points for which data were presented are challenging to assess and may not be reliable. Therefore, a confirmatory, well-controlled clinical trial with a larger sample size may be warranted before drawing any conclusions regarding the role of Fovista combination therapy for these patients.

OPH1006 Fovista Treatment Burden Reduction Study.

We believe that Fovista combination therapy may allow for less frequent dosing and patient visits compared to anti-VEGF monotherapy, thus potentially reducing patient treatment burden. In retrospective analyses of our completed Phase 2b clinical trial of Fovista, we observed that treatment with Fovista combination therapy, on average, results in a greater degree of resolution of the choroidal neovascular complex or decreased size of the neovascular tissue in patients with both small and large lesions in wet AMD patients, compared to treatment with anti-VEGF monotherapy. OCT and fluorescein angiography imaging modalities were used to assess these anatomic measures. We believe that the reduction in the size of the choroidal neovascular complex could lead to a reduction in the number of cellular elements releasing angiogenic mediators, including VEGF and/or PDGF, which may translate into a reduced need for intravitreal injections to achieve similar levels of inhibition of these mediators. During the fourth quarter of 2014, we initiated an open-label Phase 2a clinical trial of 1.5 mg of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin), to investigate the optimized regimen of Fovista administration in anti-VEGF drugs. In addition, this trial may also allow us to evaluate the potential of Fovista to reduce the treatment burden for wet AMD patients. We completed enrollment in this trial in October 2015 with a total of 64 patients enrolled. Patients are followed over an 18-month period.

OPH1007 Fovista in Combination with Avastin Discontinuous Regimen Study

During the fourth quarter of 2015, we initiated a randomized, double-masked, controlled Phase 2b clinical trial to evaluate the safety and efficacy of a discontinuous, bimonthly regimen of 1.5 mg of Fovista administered in combination with Avastin during the maintenance phase of wet AMD treatment, compared to a discontinuous, bimonthly regimen of Avastin monotherapy. We believe that off-label use of Avastin for the treatment of wet AMD has not been extensively studied in randomized, controlled clinical trials, similar to those that have been conducted for approved anti-VEGF drugs. Our initial sites for this study are in the Netherlands, where we believe Avastin administered through a discontinuous, bimonthly regimen is the current standard of care for the treatment of wet AMD. We expect to expand the trial to include additional sites and/or countries.

OPH1008 Fovista Imaging Study

During the fourth quarter of 2015, we initiated an open-label Phase 2a clinical trial to investigate the role of multi-modal imaging in assessing anatomic responses to various wet AMD treatment regimens of Fovista (1.5 mg) administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin). This trial will include both wet AMD patients who have previously received anti-VEGF treatment, whom we refer to as treatment experienced, as well as wet AMD patients who have not previously received anti-VEGF treatment, whom we refer to as treatment naïve.

Investigator Sponsored Trials

In addition, we have supplied Fovista for use in small, investigator sponsored, pilot clinical trials of Fovista administered in combination with anti-VEGF drugs. The trials seek to evaluate differing treatment regimens, including variations to the order in which Fovista and the anti-VEGF drug are administered.

Initial data from one of these investigator sponsored trials, an ongoing anti-fibrosis trial being conducted at the Retinal Consultants of Arizona, has been presented at various medical meetings beginning in February 2015. In this 24-month study of 30 patients, 27 of whom are considered to be anti-VEGF resistant, patients receive administration of 1.5 mg of Fovista in combination with either Avastin or Eylea, either with pre-treatment with 1.5 mg of Fovista two days in advance of combination therapy (n=10) or combination therapy without pretreatment (n=17). In February 2015 data were

presented showing that at the month 3 time point, anti-VEGF resistant patients receiving pre-treatment with Fovista gained an average of 11.1 ETDRS letters from baseline compared to an average gain of 4.7 ETDRS letters from baseline for anti-VEGF resistant patients not receiving pre-treatment. In February 2016 data were presented showing that at the month 18 time point, anti-VEGF resistant patients receiving pre-treatment with Fovista gained an average of 20.3 ETDRS letters from baseline compared to an average gain of 1.6 ETDRS letters from baseline for anti-VEGF patients not receiving pre-treatment. Standardization in visual acuity measurements and prior drug regimen was not uniform in this small sample size study, nor was there a control group.

Planned Clinical Trials of Fovista in Additional Indications

We are also exploring clinical development of Fovista for the treatment of a number of ophthalmic conditions with unmet medical need in which PDGF inhibition with Fovista administration may be beneficial. These indications include Von Hippel-Lindau disease and proliferative vitreoretinopathy.

- Von Hippel-Lindau disease, or VHL, is an inherited disease characterized by multiple benign and malignant tumors and cysts in the eye and other organs. Deficiency of the protein "pVHL" in multiple cell types is thought to cause VHL. In the eye, tumors consisting of blood cells called retinal capillary hemangiomas, or RCH, are the most common and earliest manifestation of VHL. These tumors cause significant retinal leakage and may lead to significant vision loss. Smaller lesions, located a significant distance from the central regions of the retina can be treated by laser or freezing via cryotherapy. However, larger and poorly situated lesions are usually untreatable or have poor visual prognoses. PDGF levels have been shown to be elevated in cells with deficiency of pVHL. Therefore, we believe that a combination of Fovista with an anti-VEGF drug may prove beneficial in RCH patients. We plan to supply Fovista for a clinical trial conducted by the National Eye Institute, or NEI, which we expect the NEI may initiate in 2016, subject to our reaching agreement with NEI with respect to the trial. VHL is rare, and we estimate that there are approximately 5,000 people with the disease in the United States.

- Proliferative vitreoretinopathy, or PVR, is a complication that occurs in approximately 5% to 10% of cases of retinal detachment. It is characterized by various degrees of scarring in the retina. In its moderate to severe form, it may become recurrent with a subsequent poor visual outcome. It is usually treated by surgical intervention. However, the recurrent form is often untreatable. Local concentrations of PDGF have been shown to be elevated in patients suffering from PVR. In addition, results from animal studies indicate that PDGF may play a significant role in mediating PVR related retinal scarring by attracting other retinal cells, such as RPE cells and glial cells, which play a role in scar formation. In an animal model of PVR, Fovista strongly inhibited retinal scarring. Therefore, we believe that a combination of Fovista with surgical intervention may prove beneficial in these PVR patients. We are considering initiation in 2016 of a clinical trial involving approximately 20 patients with PVR to investigate the potential benefit of Fovista administered in combination with surgical intervention. We estimate that there are approximately 5,000 to 10,000 new cases of PVR in the United States each year.

Dry AMD

Dry AMD is a significant cause of moderate and severe loss of central vision, affecting vision in both eyes in most patients. Although dry AMD is the most common form of AMD, there are no therapies approved by the FDA or EMA to treat this condition. According to a 2011 publication from AMD Alliance International, approximately 30 million people worldwide have some form of AMD, with dry AMD accounting for 85% to 90% of these cases. A study published in *Ophthalmology* in 2012 analyzing age and gender variations in AMD prevalence estimates that approximately 8 million people worldwide are affected by a form of dry AMD known as GA.

Dry AMD is typically associated with yellow-white dots or deposits under the retina, known as drusen. Unlike in wet AMD, there is an absence of pathological neovascularization in dry AMD. The presence of drusen, in the absence of pathological neovascularization, is critical for making the diagnosis of dry AMD in patients over 50 years of age. GA, a form of dry AMD, can result in progressive and chronic degeneration of the retina characterized by variable thinning and dysfunction of retinal tissue.

The progression of visual outcomes for patients with dry AMD is variable. Most patients experience mild to moderate loss of visual function, manifesting in blurring of central vision in the affected eye, as a result of progressive degeneration of the light-sensitive photoreceptor elements in the macula. There are two settings in which visual loss from dry AMD may lead to severe vision loss:

- *Geographic Atrophy.* With severe and progressive macular degeneration, a readily identifiable pattern of severe degeneration called GA, forms, which consequently leads to profound and irreversible vision loss. GA is readily diagnosed by macular visualization using standard diagnostic instruments utilized by ophthalmologists. GA appears as abrupt and deep levels of macular tissue loss. It has sharp margins of characteristic degeneration compared to surrounding macular tissue.

- *Conversion to Wet AMD.* Dry AMD progresses to the wet form of the disease in approximately 10% - 15% of patients, leading to more rapid and further visual loss.

The Complement Cascade

The complement cascade consists of a series of proteins involved in the defense of a host body against infectious agents, or pathogens, and other foreign proteins. The complement cascade modulates a variety of immune and inflammatory responses to these pathogens and foreign proteins. Under normal circumstances, complement proteins, together with antibodies and white blood cells, act beneficially to protect the host body by removing the pathogens and foreign proteins, together with other cellular debris. The complement system is generally tightly regulated, achieving the proper balance of activation and inhibition depending on the host body's requirements. Poorly regulated or aberrant activation of the complement cascade, without a balanced or proportional inhibition of complement proteins, may result in the formation of inflammation-inducing proteins and molecules. These inflammation-inducing byproducts of the complement cascade have the potential to inflict damage to normal tissue known as immune or complement mediated damage.

Though the complement cascade can be activated through different pathways, these pathways eventually converge with the generation of an enzyme known as C3 convertase. C3 convertase cleaves, or separates, to form a protein called C3, which itself cleaves to from a molecule known as C3b. C3b is an important element of the body's immune response, as it binds to pathogens and makes them susceptible to destruction by white blood cells. Subsequent downstream reactions continue after the formation of C3b, with the eventual cleavage of another complement pathway protein known as C5. The cleavage of C5 results in the formation of other molecules known as terminal fragments, which are part of the terminal events of the complement pathway. One terminal fragment, known as C5a, is a potent mediator of inflammation and induces the release of VEGF from affected cells. The other terminal event is the generation of the membrane-attack complex, or MAC. The cellular response to the formation of MAC on affected cells can result in cell damage, cell death and the release of various angiogenic mediators, such as PDGF.

Complement-Mediated Pathology of AMD

Multiple published studies have implicated local inflammation resulting from poorly regulated or aberrant activation of the complement cascade in the development of both the dry and wet forms of AMD. For example, in third-party preclinical studies, analysis of both human and primate retinal

drusen deposits, which are the hallmark of dry AMD, have been found to contain components of complement proteins. In addition, young patients, between the ages of 25 and 35, diagnosed with a kidney disease known as membranoproliferative glomerulonephritis have been observed to have developed retinal drusen deposits. The retinal drusen deposits are structurally and compositionally similar to those found in dry AMD patients. Complement activation is associated with membranoproliferative glomerulonephritis and may explain drusen formation in these patients, which would be otherwise unexpected in healthy subjects of a similar young age.

Inflammation is mediated by the presence of white blood cells. In third-party preclinical studies, choroidal neovascularization in animal subjects has been inhibited by the depletion of a specific white blood cell type known as monocytes. Similar effects on choroidal neovascularization have also been observed through the inhibition of other factors involved in inflammation. Furthermore, in the same preclinical retinal model, pharmacologic and genetic inhibition of C5a and MAC have inhibited neovascularization, suggesting that the inflammation responsible for choroidal neovascularization is complement mediated. In 2005, multiple studies published in the journal *Science* linked variations in the genetic sequence coding for specific complement regulatory proteins with a higher risk of developing both the dry and wet forms of AMD.

We believe one or more unidentified triggering events may lead to aberrant activation of the complement system in the macular region of AMD patients. Complement mediated inflammation in the macular tissue may result in the accumulation of drusen, damage to retina cells and the release of angiogenic mediators, potentially resulting in the development of the dry and wet forms of AMD. Furthermore, data from multiple recently-published studies of complement mediated inflammation in human subjects who have developed wet AMD continues to support this strategy.

Zimura

We are developing our product candidate Zimura for the treatment of dry AMD and wet AMD. Zimura is designed to target and inhibit the complement protein C5. We believe Zimura binds to and inhibits C5 from cleaving into later stage proteins, or terminal fragments. By inhibiting the formation of complement system terminal fragments, Zimura may decrease complement mediated inflammation and the release of angiogenic mediators such as VEGF and/or PDGF, thereby providing the rationale as a potential therapy for patients with dry AMD and wet AMD. Zimura is a chemically synthesized, pegylated aptamer. Zimura is administered by intravitreal injection.

Clinical Development of Zimura

We have completed one Phase 1/2a clinical trial of Zimura monotherapy for the treatment of dry AMD and one Phase 1/2a clinical trial of Zimura administered in combination with Lucentis for the treatment of wet AMD. During the fourth quarter of 2015, we initiated a Phase 2/3 clinical trial designed to evaluate the safety and efficacy of Zimura administered for the treatment of GA and an open-label Phase 2a clinical trial to evaluate Zimura's potential role when administered in combination with anti-VEGF drugs for the treatment of wet AMD. We believe that, in wet AMD patients, Zimura may assist in inhibiting complement mediated inflammation which may improve visual outcomes, when administered in combination with an anti-VEGF drug.

Completed Phase 1/2a Clinical Trial of Zimura for Dry AMD

In 2011, we completed a multicenter, uncontrolled, open label Phase 1/2a clinical trial evaluating the safety and tolerability of Zimura administered as a monotherapy in patients with GA. We enrolled 47 patients in this trial. We randomly assigned patients in this trial to one of two dose groups. Patients received a total of five intravitreal injections of either 0.3 mg or 1.0 mg of Zimura over a 36-week treatment period. Patients received an intravitreal injection of Zimura at day 0, week 4, week 8,

week 24 and week 36 of the trial, with a final follow-up visit at week 48. Zimura was generally well-tolerated in this trial. We did not observe any evidence of drug related adverse events. Adverse events were primarily ocular adverse events in the study eye which were related to the injection procedure.

In addition, we performed assessments of visual acuity to detect any potential decrease in vision associated with intravitreal injections, the administered drug or natural progression of the disease if left untreated. We did not identify any drug related safety issues through measurements of visual acuity.

Our Phase 1/2a clinical trial was an uncontrolled study with a small sample size, not powered to detect a difference between Zimura dose groups with statistical significance. The primary purpose of the study was to assess safety and tolerability. However, we observed a trend, in favor of the higher of two dose groups, of a relative reduction in the mean growth of the GA lesion area, as measured by an independent reading center, at 24 weeks. The mean growth from baseline in the GA lesion area during the first 24 weeks of the trial, when the injections were administered more regularly, was 1.00 mm^2 for the 24 patients receiving the 0.3 mg dose and 0.78 mm^2 for the 23 patients receiving the 1.0 mg dose. When the injections were administered on a reduced dosing schedule during the subsequent 24 weeks, this relative trend in reduced growth in GA lesion area was no longer present. We believe this apparent trend in reduction of growth in GA lesion area when Zimura was dosed more frequently, together with the relative loss of the benefit when Zimura was dosed less frequently, may suggest a possible drug effect. In addition, data from a third party targeting the complement pathway also exhibited a trend in reduction of GA growth with a pronounced effect in patients with a specific biomarker. Given the safety profile of Zimura to date when administered by intravitreal injection, what we believe is a strong preclinical rationale, the trend in the potential benefit that we observed in our Phase 1/2a clinical trial and results observed in studies from the third party targeting the complement pathway, we are planning to move forward with a Phase 2/3 clinical trial evaluating Zimura in the treatment of dry AMD.

Phase 2/3 Clinical Trial of Zimura in Dry AMD

During the fourth quarter of 2015, we initiated a randomized, double-masked, controlled Phase 2/3 clinical trial to evaluate the safety and efficacy of Zimura monotherapy in patients with GA. We plan to enroll approximately 300 patients in the initial stage of the trial. During this stage, patients will be randomized into three groups, and will receive monthly injections of 1.0 mg of Zimura per eye, monthly injections of 2.0 mg of Zimura per eye or monthly sham injections as the control arm. At month 18, we plan to conduct an interim analysis to assess the safety and efficacy of Zimura compared to sham. Upon review of this interim analysis, a determination will be made whether to continue the trial and whether to expand the trial by enrolling additional patients. Patients in the trial will receive monthly injections for 24 months.

Completed Phase 1/2a Clinical Trial of Zimura for Wet AMD

In 2009, we completed a multicenter, ascending dose and parallel group open label Phase 1/2a clinical trial evaluating the safety and tolerability of Zimura administered in combination with Lucentis for the treatment of wet AMD. We enrolled 60 patients in this trial. Zimura was generally well tolerated in this trial when tested in combination with Lucentis. None of the patients experienced any dose limiting toxicities at any of the dose levels tested. We observed only a single adverse event assessed by the investigators to be related to Zimura, mild subcapsular cataract in one patient in the group treated with 2.0 mg of Zimura. Adverse events were primarily ocular adverse events in the study eye which were related to the injection procedure. One patient withdrew from the trial as a result of a serious adverse event of bacteremia unrelated to study drug or injection procedure, which resulted in a subsequent fatality. Systemic adverse events in this trial were not frequently reported. No systemic adverse events were assessed as drug related.

In addition, we performed assessments of visual acuity primarily as safety assessments to detect any decrease in vision associated with the intravitreal drug combination or the injection procedure. We did not identify any safety issues through measurements of visual acuity. In a subgroup of 43 patients who had not previously been treated with anti-VEGF drugs and who received six injections at doses of 0.3 mg, 1.0 mg or 2.0 mg of Zimura administered in combination with Lucentis, we observed a mean increase in visual acuity from baseline at all time points based on the number of ETDRS letters the patient can read. In a follow-up visit at week 24 of the trial, we noted improvements in mean visual acuity from baseline as follows: 13.6 letters for the 13 patients receiving the 0.3 mg dose, 11.7 letters for the 15 patients receiving the 1.0 mg dose and 15.3 letters for the 15 patients receiving the 2.0 mg dose. In this subgroup, 22 patients (51%) gained at least 15 letters, consisting of six patients (46%) in the 0.3 mg dose group, seven patients (47%) in the 1.0 mg dose group and nine patients (60%) in the 2.0 mg dose group.

Phase 2 Clinical Programs for Zimura for Wet AMD

During the fourth quarter of 2015, we initiated an open-label Phase 2a clinical trial to evaluate Zimura's potential role when administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin) for the treatment of wet AMD.

In late 2014, we initiated a very small, open-label, Phase 2a clinical trial to evaluate Zimura's potential role when administered in combination with anti-VEGF drugs for the treatment of PCV, a specific type of wet AMD, in patients who do not respond adequately to treatment with anti-VEGF monotherapy or for whom anti-VEGF monotherapy has failed, who we refer to as anti-VEGF resistant. Our initial, preliminary analysis of the data from this trial has not revealed any safety concerns related to Zimura.

Option Agreement for Tivozanib

In addition to expanding our Fovista and Zimura development programs, we are committed to exploring opportunities to address the unmet needs in AMD. Our strategy is to be scientifically driven, evaluate multiple options with limited up-front investment and obtain early proof-of-concept validation prior to a larger commitment of our capital. In accordance with this strategy, in November 2014, we entered into an exclusive research and option agreement with AVEO Pharmaceuticals to license tivozanib, a small molecule VEGF tyrosine kinase inhibitor, for the treatment of non-oncologic conditions of the eye. Under the terms of the agreement, we paid AVEO an upfront fee of $0.5 million for exclusive rights to investigate tivozanib's potency and potential as an ocular formulation. We are solely responsible for the ocular formulation and development of this compound, and we are focusing on a potential treatment for the maintenance phase of wet AMD therapy.

Under the agreement, upon completion of our initial analysis, if we elect to continue the development of an ocular formulation of tivozanib, we will pay additional fees based upon our submission of an Investigational New Drug application and upon the demonstration of proof of concept in humans. One or both of these milestones may be triggered in 2016. If we exercise our option for an exclusive worldwide license (excluding Asia) for the compound for ocular indications, we will pay a license fee, and development, regulatory and sales-based milestones, if achieved, as well royalties on commercial sales. We may exercise the option until late 2017.

Sales and Marketing

As our Phase 3 trials for Fovista are on track with initial, top-line data expected during the fourth quarter of 2016, we have begun to build our commercial capabilities to support the pre-launch activities for a potential U.S. launch. We believe we can access the U.S. market through a focused commercial organization, including a specialty sales force to target an estimated 2,000 retinal specialists who we

believe represent the majority of the market potential in the United States. Novartis is responsible for commercializing Fovista outside of the United States. We and Novartis are closely collaborating to ensure that a potential global brand launch is coordinated across the worldwide retinal specialist community. We recently hired a Chief Commercial Officer with extensive ophthalmic and specialty pharmaceutical market launch experience, and we are building an initial team that includes professionals with market access expertise. If Zimura receives marketing approval, we also plan to commercialize Zimura in the United States with our own focused, specialty sales force.

We believe that retinal specialists in the United States, who perform most of the medical procedures involving diseases of the back of the eye, are sufficiently concentrated that we will be able to effectively promote Fovista and Zimura to these specialists with a specialty sales and marketing group of approximately 100 persons. Intravitreal injection is a specialized procedure. In the vast majority of cases in the United States, retinal specialists perform intravitreal injections. Based on our examination of the membership lists of organizations for retinal specialists, we estimate that there are approximately 2,000 retinal specialists in the United States.

We have entered into a commercialization agreement with Novartis for Fovista pursuant to which we have granted to Novartis commercialization rights for Fovista outside of the United States in return for an upfront fee, milestones and royalties. See "Acquisition, License and Collaboration Agreements—Licensing and Commercialization Agreement with Novartis Pharma AG." We expect to utilize a variety of types of collaboration, distribution and other marketing arrangements with one or more third parties to commercialize Zimura in markets outside the United States.

Manufacturing

We do not currently own or operate manufacturing facilities for the production of clinical or commercial quantities of our product candidates. Although we intend to rely upon third-party contract manufacturers to produce our products, we have recruited personnel with experience to manage the third-party contract manufacturers producing Fovista, Zimura and other products that we may develop in the future.

The process for manufacturing Fovista and Zimura consists of chemical synthesis, purification, pegylation, further purification and finally freeze drying to form a powder, which is the active pharmaceutical ingredient, or API. Each of these steps involves a relatively common chemical engineering process. The chemical synthesis is similar to peptide manufacturing. In a separate process that follows the chemical synthesis, API for each of Fovista and Zimura is dissolved in a liquid solution that includes certain chemical buffers and then is placed into vials from which the intravitreal injection solution is drawn. This process of rendering the API into a liquid solution and placing it into vials is referred to as fill-finish services.

We currently engage a single third-party manufacturer, Agilent Technologies, Inc., or Agilent, to provide supplies of both Fovista API and Zimura API. We have entered into clinical and commercial supply agreements with Agilent with respect to Fovista. These agreements are described below. We currently obtain Zimura API from Agilent on a purchase order basis.

Fovista API Clinical Supply Agreement. In May 2014, we entered into a Clinical Manufacturing and Supply Agreement with Agilent pursuant to which Agilent has agreed to manufacture and supply to us, and we have agreed to purchase from Agilent, a specified percentage of our clinical requirements in specified jurisdictions of Fovista API. The clinical supply agreement has an initial five year term, which is subject to automatic renewal absent termination by either party in accordance with the terms of the clinical supply agreement. We may terminate the clinical supply agreement or any statement of work thereunder upon 12 months prior written notice to Agilent and Agilent may terminate the clinical supply agreement if we do not, over a specified period, purchase and take delivery from Agilent of a specified minimum quantity of API for Fovista. Each party also has the right to terminate the clinical

supply agreement for other customary reasons such as material breach and bankruptcy. The clinical supply agreement contains provisions relating to compliance by Agilent with current Good Manufacturing Practices, cooperation by Agilent in connection with marketing applications for Fovista, indemnification, confidentiality, dispute resolution and other customary matters for an agreement of this kind.

Fovista API Commercial Supply Agreement. In September 2015, we entered into a Commercial Manufacturing and Supply Agreement with Agilent, pursuant to which Agilent has agreed to manufacture and supply to us, and we have agreed to purchase from Agilent, a specified percentage of our commercial requirements in specified jurisdictions of Fovista API. The commercial supply agreement has an initial term that runs for seven years from the date of our first commercial sale of Fovista, and which is subject to one two-year automatic renewal period, absent termination by either party in accordance with the terms of the commercial supply agreement. The commercial supply agreement provides for pricing for Fovista API structured on a tiered basis, with the price reduced as the volume of Fovista API ordered increases. We may cancel any purchase order under the commercial supply agreement at any time, subject to the payment of specified cancellation fees. We may terminate the commercial supply agreement in the event that we cannot commercialize Fovista due to regulatory or other medical, scientific or legal reasons. Agilent may terminate the commercial supply agreement in the event that we do not, over a specified period, purchase and take delivery from Agilent of a specified minimum quantity of Fovista API. Each party also has the right to terminate the commercial supply agreement for other customary reasons such as material breach and bankruptcy. The commercial supply agreement contains provisions relating to compliance by Agilent with current Good Manufacturing Practices, cooperation by Agilent in connection with marketing applications for Fovista, indemnification, confidentiality, dispute resolution and other customary matters for an agreement of this kind.

Other Manufacturing Arrangements. We also engage a different, single third-party manufacturer to provide fill-finish services for both Fovista and Zimura. We obtain these services on a purchase order basis. Under a license, manufacturing and supply agreement with Nektar Therapeutics, or Nektar, described in more detail below under "—Acquisition, License and Collaboration Agreements—Nektar Therapeutics Manufacturing and Supply Agreement," we must purchase our entire clinical and commercial requirements for the polyethylene glycol, or PEG, reagent, which we use to make Fovista, exclusively from Nektar at an agreed price, which is subject to annual adjustment in accordance with changes in the producer price index, except under specified circumstances relating to Nektar's failure to supply, in which event Nektar has agreed to enable a third-party manufacturer to supply us. Under this agreement, Nektar has agreed to supply our entire clinical and commercial requirements for this PEG reagent, subject to certain forecasting and ordering requirements and other limitations, and has agreed to supply this PEG reagent only to us for the purpose of manufacturing a product produced by linking the active ingredient in Fovista to this PEG reagent by means of pegylation. The PEG reagent supplied by Nektar is proprietary to Nektar. We obtain a different PEG reagent used to make Zimura from a different third-party manufacturer on a purchase order basis.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technologies, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and governmental agencies and public and private research institutions. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

Our potential competitors include large pharmaceutical and biotechnology companies, and specialty pharmaceutical and generic or biosimilar drug companies. 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. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

The key competitive factors affecting the success of each of Fovista and Zimura, if approved, are likely to be the respective drug's efficacy, safety, method of administration, convenience, price, the level of generic competition and the availability of coverage and reimbursement from government and other third-party payors. The method of administration of Fovista and Zimura, intravitreal injection, is commonly used to administer ophthalmic drugs for the treatment of severe disease and is generally accepted by patients facing the prospect of severe visual loss or blindness. However, a therapy that offers a less invasive method of administration might have a competitive advantage over one administered by intravitreal injection, depending on the relative safety of the other method of administration.

There are a variety of therapies used for the treatment of wet AMD, principally Avastin, Lucentis and Eylea, as well as conbercept in China. These anti-VEGF drugs are well established therapies and are widely accepted by physicians, patients and third-party payors as the standard of care for the treatment of wet AMD. Physicians, patients and third-party payors may not accept the addition of Fovista or Zimura to their current treatment regimens for a variety of potential reasons, including:

- if they do not wish to incur the additional cost of Fovista or Zimura;
- if they perceive the addition of Fovista or Zimura to be of limited benefit to patients; or
- in the case of wet AMD if they wish to treat with anti-VEGF drugs as monotherapy first and add Fovista or Zimura only if and when resistance to continued anti-VEGF monotherapy limits further enhancement of visual outcome with anti-VEGF monotherapy.

We are developing Fovista and Zimura for administration in combination with anti-VEGF drugs for the treatment of wet AMD. Accordingly, we do not believe Fovista or Zimura would be directly competitive with these therapies. However, a standalone therapy for wet AMD with demonstrated improved efficacy over currently marketed therapies in this indication with a favorable safety profile and any of the following characteristics might pose a significant competitive threat to Fovista:

- a mechanism of action that does not involve VEGF;
- a duration of action that obviates the need for frequent intravitreal injection; or
- an effect on wet AMD that makes combination therapy with Fovista or Zimura unnecessary.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. For example, a single drug, or a co-formulated injection, that combines an anti-PDGF drug and an anti-VEGF drug would be more convenient than administering an intravitreal injection of each of Fovista and an anti-VEGF drug. Such greater convenience might make such a drug or co-formulated injection more attractive to physicians and patients. An anti-VEGF gene therapy product might substantially reduce the number and frequency of intravitreal injections when treating wet AMD and make monthly intravitreal injections of Fovista unattractive to physicians and patients. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours. In addition,

our ability to compete may be affected because in many cases insurers or other third-party payors seek to encourage the use of generic products.

There are a number of products in preclinical research and clinical development by third parties to treat wet AMD. We expect that product candidates currently in clinical or preclinical development that directly or indirectly inhibit PDGF, the molecule that Fovista inhibits, or that inhibit the function of other molecules and which could obviate the use of an anti-PDGF agent such as Fovista may represent significant competition if approved. These product candidates may provide better efficacy, a better safety profile and/or convenience and other benefits that are not provided by our product candidates or currently marketed therapies. Based on publicly available information, we have identified, among others, the following ophthalmic product candidates in clinical and preclinical development that, like Fovista, are based on PDGF inhibition:

- Regeneron Pharmaceuticals and Bayer HealthCare have an anti-PDGF product candidate that is being co-formulated with Eylea for administration in a single intravitreal injection that entered clinical development in February 2014 and entered Phase 2 clinical trials in the second quarter of 2015.

- Ohr Pharmaceutical is developing an eye drop formulation of squalamine for wet AMD which has completed a Phase 2 clinical study and has announced its intention to begin a Phase 3 clinical study.

- Santen has a dual inhibitor of VEGF and PDGF in Phase 1/2a clinical development.

- Tyrogenex has an orally-administered dual inhibitor of VEGF and PDGF that has completed a Phase 1 trial and commenced a Phase 2 study in the first quarter of 2015.

- Allergan has an anti-PDGF, anti-VEGF DARPin product candidate in preclinical development that is being co-formulated for administration in a single intravitreal injection.

- Neurotech has a PDGF antagonist that is in preclinical development that is designed as an encapsulated cell technology implant, potentially delivered in combination with an anti-VEGF drug.

- Somalogic has an anti-PDGF product candidate in preclinical development.

Because there are a variety of means to block the activity and signaling of PDGF, our patents and other proprietary protections for Fovista may not prevent development or commercialization of product candidates that are different from Fovista.

Moreover, several companies, including Novartis, Allergan, Neurotech, Genentech, Regeneron, Ophthea, Quark Pharmaceuticals, PanOptica and others, have treatments targeting other molecular targets in various phases of clinical development for the treatment of wet AMD. RegenexBio and other companies are investigating potential gene therapy treatments for the treatment of wet AMD. Additionally, the London Project to Cure Blindness, which is a partnership involving the University College London and Pfizer, recently announced a successful pilot procedure for the transplant of retinal pigment epithelium cells derived from stem cells for the treatment of wet AMD and the commencement of a broader clinical trial.

In addition, other companies are undertaking efforts to develop technologies to allow for a less frequent dosing schedule for anti-VEGF drugs that are currently in use. If such technologies are successfully developed and approved for use, we may need to conduct additional clinical trials of Fovista using a less frequent dosing schedule than the dosing schedule we are currently using in our ongoing Phase 3 clinical program. Any such trials may not be successful.

There are a number of products in preclinical research and clinical development by third parties to treat 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 inflammation suppression, such as complement system inhibitors and corticosteroids, visual cycle modulators, antioxidants and neuroprotectants, cell and gene therapies and vascular enhancers. Based upon publicly available information, we have identified, among others, the following ophthalmic product candidates in clinical development that, like Zimura, are based on complement system inhibition:

- Genentech has a humanized Fab fragment administered by intravitreal injection that targets complement factor D, for which it completed a Phase 2 clinical trial and commenced Phase 3 trials.
- Novartis and MorphoSys have a fully human antibody targeting complement factor C5, which is in Phase 2 clinical development and for which data were recently presented.
- Apellis has a product candidate administered by intravitreal injection that inhibits complement factor C3, which is in Phase 2 clinical development.
- Alexion Pharmaceuticals has an intravenously administered product candidate targeting complement factor C5 approved for unrelated conditions, which completed a Phase 2 clinical trial for dry AMD in 2014.

Moreover, we have identified, among others, the following additional ophthalmic product candidates that are in the later stages of clinical development for the treatment of dry AMD:

- Alimera Sciences has a corticosteroid intravitreal implant, Iluvien, which was recently approved for diabetic macular edema and which is being tested as a possible treatment for dry AMD.
- Acucela has an orally bioavailable selective visual cycle modulator, which is in a Phase 2b/3 clinical trial.
- Colby Pharmaceuticals has an ocular esterase cleavable prodrug of tempol hydroxylamine, which is in a Phase 2 clinical trial.
- Allergan has an a2-adrenergic receptor agonist, which has completed a Phase 2 clinical trial.
- Vision Medicines has a humanized monoclonal antibody that binds amyloid-b (Ab), which is in a Phase 2 clinical trial.
- GlaxoSmithKline has an anti-amyloid B antibody, which is in a Phase 2 clinical trial.
- MacuClear has a topical systemic antihypertensive agent administered as an eye drop, which is in a Phase 2/3 clinical trial.

Several additional companies, including Ocata Therapeutics, CHA Biotech, Cell Cure Neurosciences and Catalyst Biosciences, have announced dry AMD programs.

Intellectual Property

Our success depends in part on our ability to obtain and maintain proprietary protection for our product candidates, technology and know-how, to operate without infringing the proprietary rights of others and to prevent others from infringing our proprietary rights. We seek to protect our proprietary position, among other methods and where patent protection is available, by filing U.S. and certain foreign patent applications related to our proprietary technology, inventions and improvements that are important to the development of our business, and by maintaining our issued patents. We also rely upon trade secrets, know-how, continuing technological innovation and in-licensing opportunities to develop and maintain our proprietary position.

Our patent portfolio includes the following:

- patents and patent applications owned by Ophthotech:
  - patents covering the treatment of wet AMD with a combination of Fovista and an anti-VEGF-A antibody or binding fragment thereof (such as Avastin or Lucentis), or the use of Fovista in the manufacture of a medicine for the treatment of wet AMD when administered with an anti-VEGF-A antibody or binding fragment thereof, which have issued in the United States, the European Union, Japan and certain other jurisdictions, and which are expected to expire in 2024; and patent applications covering the treatment of wet AMD with a combination of Fovista and an anti-VEGF-A antibody or binding fragment thereof or the use of Fovista in the manufacture of a medicine for the treatment of wet AMD when administered with an anti-VEGF-A antibody or binding fragment thereof, which are pending in certain other jurisdictions, and which, if granted, are expected to expire in 2024;
  - patent applications covering the treatment of wet AMD with a combination of Fovista and Eylea, or the use of Fovista in the manufacture of a medicine for the treatment of wet AMD when administered with Eylea, which are pending in the United States, the European Union, Japan and certain other jurisdictions, and which, if granted, are expected to expire in 2030;
  - patents covering co-formulations of Fovista and an anti-VEGF-A antibody or binding fragment thereof, which have issued in the United States, Japan and certain other jurisdictions, and which are expected to expire in the United States in 2025 and elsewhere in 2024; and patent applications covering co-formulations of Fovista and an anti-VEGF-A antibody or binding fragment thereof, which are pending in the European Union and certain other jurisdictions, and which, if granted, are expected to expire in 2024;
  - patents covering methods for treating AMD with a combination of Fovista and Macugen, which have issued in the United States, the European Union, Japan and certain other jurisdictions, and which are expected to expire in 2024; and patent applications covering methods for treating AMD with a combination of Fovista and Macugen, which are pending in certain other jurisdictions, and which, if granted, are expected to expire in 2024;
  - patent applications covering co-formulations and other proprietary technology relating to Fovista, which are pending in the United States, the European Union, Japan and certain other jurisdictions, and which, if granted, are expected to expire in 2033;
  - patent applications covering formulations and dosing regimens and other proprietary technology relating to Fovista, which are pending in the United States, the European Union, Japan and certain other jurisdictions, and which, if granted, are expected to expire in 2034;
  - patent applications covering co-formulations and other proprietary technology relating to Zimura, which are pending in the United States, the European Union, Japan and certain other jurisdictions, and which, if granted, are expected to expire in 2034; and
  - patent applications covering dosing regimens and methods for treating AMD and other proprietary technology relating to Fovista, which are pending in the United States and under the Patent Cooperation Treaty system, and which, if granted, are expected to expire in 2035; and
- patents and patent applications in-licensed from Archemix Corp., or Archemix:
  - composition-of-matter patents covering Fovista, which have issued in the United States, the European Union, Japan and certain other jurisdictions, and which are expected to expire in the United States in 2017 and elsewhere in 2018;

- composition-of-matter patents covering Zimura, which have issued in the United States, the European Union, Japan and certain other jurisdictions, and which are expected to expire in Japan in 2026 and elsewhere in 2025; and composition-of-matter patent applications covering Zimura, which are pending in certain other jurisdictions, and which, if granted, are expected to expire in 2025; and

- patents covering the treatment of certain complement mediated disorders with Zimura, Zimura for use in a method of treating certain complement mediated disorders or a composition comprising Zimura for treating certain complement mediated disorders, which have issued in the United States, the European Union, Japan and certain other jurisdictions, and which are expected to expire in Japan and the United States in 2026 and elsewhere in 2025.

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

Similar provisions are available in the European Union and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our product candidates, including Fovista, receive approval by the FDA or foreign regulatory authorities, we expect to apply for patent term extensions on issued patents covering those products, depending upon the length of the clinical trials for each drug and other factors. The expiration dates referred to above are without regard to potential patent term extension or other market exclusivity that may be available to us.

We may rely, in some circumstances, upon trade secrets to protect our technology. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements with our employees, consultants, scientific advisors and contractors. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems.

Acquisition, License and Collaboration Agreements

OSI (Eyetech) Divestiture Agreement

In July 2007, we entered into a divestiture agreement with OSI (Eyetech), Inc., or Eyetech, which agreement is now held by OSI Pharmaceuticals, LLC, or OSI Pharmaceuticals, a subsidiary of Astellas US LLC, under which we acquired specified technology, rights, and other assets owned or controlled by Eyetech relating to particular anti-PDGF aptamers, including Fovista, and assumed Eyetech's liabilities and obligations under specified agreements between Eyetech and Archemix, and between Eyetech and Nektar. These agreements with Archemix and Nektar, as subsequently amended, are described in more detail below.

We have agreed that we will not, alone or with any other party, research, develop or commercialize any compound, other than anti-PDGF products covered by the divestiture agreement, which solely and specifically binds to PDGF for its mode of action.

Financial Terms

In connection with the agreement, we paid Eyetech a $4.0 million upfront payment and issued Eyetech 3,000,000 shares of our junior series A preferred stock. We are obligated to pay OSI Pharmaceuticals additional one-time payments of $12.0 million in the aggregate upon marketing approval in the United States and the European Union, of a covered anti-PDGF product. We are obligated to pay OSI Pharmaceuticals a royalty at a low single-digit percentage of net sales of any covered anti-PDGF product we successfully commercialize. Our obligation to pay such royalties will expire on a product-by-product and country-by-country basis on the later of 10 years after the first commercial sale of each product in each country or the expiration of the last-to-expire valid claim of specified patents that cover the composition, manufacture or use of each product in each country.

Diligence Obligations

We are required to use commercially reasonable efforts to conduct the development and manufacture of a covered anti-PDGF product so as to obtain marketing approval and, thereafter, to commercialize a covered anti-PDGF product in the United States and in the European Union.

Term and Termination

The agreement, unless terminated earlier by us or by OSI Pharmaceuticals, will remain in effect until we no longer have any financial obligations to OSI Pharmaceuticals, after which the rights granted to us will become perpetual and fully paid-up. The agreement provides that either party may terminate the agreement in the event of the other party's insolvency, bankruptcy or comparable proceedings, or if the other party materially breaches the agreement and does not cure such breach during a specified cure period.

If we fail to use commercially reasonable efforts to meet our specified diligence obligations and fail to take specified steps after receiving written notice thereof from OSI Pharmaceuticals, then OSI Pharmaceuticals may terminate the agreement as to such countries with respect to which such failure has occurred, and upon such termination we will be obligated to grant, assign and transfer to OSI Pharmaceuticals specified rights and licenses related to our anti-PDGF aptamer technology and other related assets, and if we are manufacturing such anti-PDGF products at the time of such termination, may be obligated to provide transitional supply to OSI Pharmaceuticals of covered anti-PDGF products, for such countries.

Archemix License Agreements

In September 2011, we entered into two amended and restated exclusive license agreements with Archemix, one relating to anti-PDGF aptamers, which we refer to as the PDGF agreement, and the other relating to anti-C5 aptamers, which we refer to as the C5 agreement. The PDGF agreement superseded a 2004 agreement between Eyetech and Archemix that we assumed under the divestiture agreement described above. The C5 agreement superseded a July 2007 agreement between us and Archemix. Under these amended and restated agreements, we hold exclusive worldwide licenses (subject to certain pre-existing rights) under specified patents and technology owned or controlled by Archemix to develop, make, use, sell, offer for sale, distribute for sale, import and export pharmaceutical products comprised of or derived from any anti-PDGF aptamer or anti-C5 aptamer for the prevention, treatment, cure or control of human indications, diseases, disorders or conditions of the eye, adnexa of the eye, orbit and optic nerve, other than certain expressly excluded applications.

The licenses we received under these agreements include sublicenses to us of rights to specified technology, which we refer to as the SELEX technology, licensed by University License Equity Holdings, Inc., or ULEHI, to Gilead Sciences, Inc., or Gilead, and sublicensed by Gilead to Archemix, as well as sublicenses to us of rights to certain other technology licensed by Gilead to Archemix, including the composition-of-matter patents relating to Fovista. Our agreements with Archemix contemplate that our rights to these sublicensed technologies will survive termination of the license from ULEHI to Gilead as long as we are not in breach of the C5 agreement or PDGF agreement, as applicable, and will survive termination of the sublicense from Gilead to Archemix as long as such termination did not arise from our action or inaction, provided in each case that we agree to be bound to ULEHI or Gilead, as applicable, under the terms of our agreements with Archemix. However, if Archemix, its affiliates and all of Archemix's assignees and sublicensees, including us, cease to exercise reasonable efforts to develop commercial applications of products and services using the SELEX technology, then Archemix's rights to the SELEX technology may revert to Gilead or ULEHI, and we would lose our rights to the SELEX technology.

Financial Terms

In connection with these agreements, as amended, we paid Archemix aggregate upfront licensing fees of $1.0 million and issued to Archemix an aggregate of 2,000,000 shares of our series A-1 preferred stock and 500,000 shares of our series B-1 preferred stock. We have also paid Archemix an aggregate of $6.75 million in fees based on our achievement of specified clinical milestone events under these agreements.

Under the PDGF agreement, we are also obligated to make additional future payments to Archemix of up to an aggregate of $14.0 million if we achieve specified clinical and regulatory milestones with respect to Fovista, and up to an aggregate of $3.0 million if we achieve specified commercial milestones with respect to Fovista. Under the PDGF agreement, we also are obligated to make additional payments to Archemix of up to an aggregate of approximately $18.8 million if we achieve specified clinical and regulatory milestones with respect to each other anti-PDGF aptamer product that we may develop under the agreement, and up to an aggregate of $3.0 million if we achieve specified commercial milestones with respect to such other anti-PDGF aptamer product.

Under the C5 agreement, for each anti-C5 aptamer product that we may develop under the agreement, including Zimura, we are obligated to make additional payments to Archemix of up to an aggregate of $57.5 million if we achieve specified development, clinical and regulatory milestones, with $24.5 million of such payments relating to second and third indications, and, as to all anti-C5 products under the agreement collectively, up to an aggregate of $22.5 million if we achieve specified commercial milestones. We are also obligated to pay Archemix a double-digit percentage of specified non-royalty payments we may receive from any sublicensee of our rights under the C5 agreement.

No royalties are payable to Archemix under either of the PDGF agreement or the C5 agreement.

Diligence Obligations

We are required to exercise commercially reasonable efforts in developing and commercializing at least one anti-PDGF aptamer product and at least one anti-C5 aptamer product and in undertaking investigations and actions required to obtain regulatory approvals necessary to market such products in the United States, the European Union, and Japan, and in such other markets where we determine that it is commercially reasonable to do so.

Term and Termination

Unless earlier terminated, the PDGF agreement will expire upon the later of 10 years after the first commercial sale in any country of the last licensed product and the expiration of the last-to-expire valid claim of the licensed patents that covers a licensed product.

Unless earlier terminated, the C5 agreement will expire upon the later of 12 years after the first commercial sale in any country of the last licensed product, the expiration of the last-to-expire valid claim of the licensed patents that covers a licensed product, and the date on which no further payments of sublicensing income are to be received by us.

Either we or Archemix may terminate each of the agreements if the other party materially breaches the applicable agreement and the breach remains uncured for a specified period. Archemix may also terminate each of the agreements, or may convert our exclusive licenses under the applicable agreement to non-exclusive licenses, if we challenge or assist a third party in challenging the validity or enforceability of any of the patents licensed under the applicable agreement. We may terminate each of the agreements at any time and for any or no reason effective at the end of a specified period following our written notice to Archemix of termination.

Nektar Therapeutics Manufacturing and Supply Agreement

In April 2012, February 2015 and April 2015, we amended a 2006 license, manufacturing and supply agreement between Eyetech and Nektar that we assumed under the Eyetech divestiture agreement described above. Under the agreement, as amended, Nektar has granted us the following licenses:

- an exclusive, worldwide license under specified patent rights and know-how owned or controlled by Nektar to make, have made, develop, use, import, offer for sale and sell particular products that are produced by linking the API in Fovista to a specified polyethylene glycol, or PEG, reagent by means of pegylation; and

- non-exclusive sublicenses of certain other patent rights controlled by Nektar.

Financial Terms

We have paid approximately $21.5 million and Eyetech previously paid approximately $0.3 million, to Nektar under the agreement. We are also obligated to pay Nektar additional specified amounts in relation to certain milestone events. Such specified milestone amounts that may be payable by us in the future include an aggregate of $6.5 million payable upon the achievement of specified clinical and regulatory milestones. In addition, a payment of $3.0 million will be triggered upon the achievement of a specified commercial sale milestone with respect to Fovista.

If we grant to any third-party commercialization rights to a licensed product under the agreement, we agreed to pay Nektar a low double-digit percentage of any upfront payment we receive from such third party, less certain milestone amounts we have paid to Nektar. In June 2014, we paid Nektar $19.8 million in connection with our entry into the Novartis Agreement.

We are also obligated to pay Nektar tiered royalties at low to mid single-digit percentages of net sales of any licensed product we successfully commercialize, with the royalty percentage determined by our level of licensed product sales, the extent of patent coverage for the licensed product and whether we have granted a third party commercialization rights to the licensed product. Our obligation to pay such royalties will expire on a licensed product-by-licensed product and country-by-country basis on the later of 10 years after first commercial sales of such licensed product in such country, and the expiration of the last-to-expire valid claim in the licensed patents that cover such licensed product in such country.

Exclusive Supply

Under the agreement, we must provide binding forecasts of requirements for the PEG reagent to Nektar and purchase our entire requirements for the PEG reagent, which we currently use to formulate Fovista, exclusively from Nektar at agreed prices based upon volume, which are subject to annual adjustment in accordance with changes in the producer price index, except under specified

circumstances relating to Nektar's failure to supply, in which event Nektar has agreed to enable a third-party manufacturer to supply us.

Under the agreement, Nektar has agreed to supply our entire clinical and commercial requirements for this PEG reagent, subject to certain forecasting and ordering requirements and certain other limitations, and has agreed to supply this PEG reagent only to us for the purpose of manufacturing a product produced by linking the API in Fovista to this PEG reagent by means of pegylation.

Diligence Obligations

Under the terms of the agreement, if we fail to use commercially reasonable efforts to achieve the first commercial sale of Fovista in the United States or one of a specified group of other countries by June 30, 2018, which date Nektar and we may agree in good faith to extend in specified circumstances, Nektar may either terminate our license or convert our license for such country to a non-exclusive license. In addition, if we fail to use commercially reasonable efforts to develop Fovista and file and seek approval of NDAs on a schedule permitting us to make first commercial sales of Fovista in specified countries by June 30, 2019, do not make such first commercial sales of Fovista by such date, or thereafter fail to use commercially reasonable efforts to continue to commercialize and market Fovista in such countries, we will be in material breach of the agreement.

Term and Termination

The agreement, unless earlier terminated by us or Nektar, will expire upon the expiration of our obligation to pay royalties to Nektar on net sales of licensed products. We and Nektar each may terminate the agreement if the other party materially breaches the agreement and does not cure such breach within a specified cure period. We may terminate the agreement at any time, without cause, effective at the end of a specified period following our written notice to Nektar of termination, in which event we will be obligated to pay Nektar specified termination fees and reimburse Nektar for certain costs.

If we challenge the validity or enforceability of any Nektar licensed patent right, we must pay for the defense of such challenge if such challenge is not successful and our licenses under certain licensed patent rights will terminate.

Licensing and Commercialization Agreement with Novartis Pharma AG

In May 2014, we entered into a licensing and commercialization agreement with Novartis Pharma AG, which we refer to as the Novartis Agreement. Under the Novartis Agreement, we granted Novartis exclusive rights under specified patent rights, know-how and trademarks controlled by us to manufacture, from bulk API supplied by us, standalone Fovista products and products combining Fovista with an anti-VEGF drug to which Novartis has rights in a co-formulated product, for the treatment, prevention, cure or control of any human disease, disorder or condition of the eye, and to develop and commercialize those licensed products in all countries outside of the United States, which we refer to as the Novartis Territory. We have agreed to use commercially reasonable efforts to complete our ongoing pivotal Phase 3 clinical program for Fovista and Novartis has agreed to use commercially reasonable efforts to develop a standalone Fovista product and a co-formulated product containing Fovista and an anti-VEGF drug to which Novartis has rights, as well as a pre-filled syringe presentation of such products and to use commercially reasonable efforts, subject to obtaining marketing approval, to commercialize licensed products in the Novartis Territory in accordance with agreed development and marketing plans. Novartis has also granted us options, subject to specified limitations, and to the extent such rights are controlled by Novartis, to obtain exclusive rights from Novartis to develop and commercialize in the United States the co-formulated and pre-filled syringe products developed by Novartis. We and Novartis have each granted the other options, subject to

specified limitations, to obtain access to study data from certain clinical trials of licensed products that we or Novartis may conduct, including for use by the other in regulatory filings in its territory. We have agreed to exclusively supply Novartis, and Novartis has agreed to exclusively purchase from us, its clinical and commercial requirements for the bulk API for Fovista for use in-licensed products in the Novartis Territory. We have agreed not to commercialize any product comprising Fovista or any other anti-PDGF product in the ophthalmic field in the Novartis Territory.

Novartis paid us a $200.0 million upfront fee upon execution of the Novartis Agreement. Under the terms of the Novartis Agreement, Novartis is also obligated to pay us up to an aggregate of $130.0 million if we achieve specified patient enrollment-based milestones for our Phase 3 clinical program for Fovista, $50.0 million of which we achieved in September 2014 and received in October 2014 and $50 million of which we achieved in March 2015 and received in April 2015, and up to an aggregate of an additional $300.0 million upon achievement of specified regulatory milestones, including marketing approval and reimbursement approval in certain countries in the Novartis Territory. In addition, Novartis has agreed to pay us up to an aggregate of an additional $400.0 million if Novartis achieves specified sales milestones in the Novartis Territory. Novartis also is obligated to pay us royalties with respect to standalone Fovista products and combination Fovista products that Novartis successfully commercializes. We will receive royalties at a mid-thirties percentage of net sales of standalone Fovista products and a royalty of approximately equal value for sales of combination Fovista products. Such royalties are subject to customary deductions, credits, and reductions for lack of patent coverage or market exclusivity. Novartis's obligation to pay such royalties will continue on a licensed product-by-licensed product and country-by-country basis until Novartis's last actual commercial sale of such licensed product in such country. We will continue to be responsible for royalties we owe to third parties on sales of Fovista products.

Novartis has agreed to pay our manufacturing costs plus a specified percentage margin for commercial supplies of the bulk API in Fovista that we supply to Novartis. If we or Novartis exercises our or its respective rights to obtain access to study data from clinical trials conducted by the other party, the party exercising the option will be obligated to pay the other party's associated past development costs and share with such other party any future associated development costs. If we exercise our option to obtain Novartis-controlled rights to develop, manufacture and commercialize any co-formulated Fovista product in the United States, we will be obligated to pay a specified percentage of Novartis's associated past development costs and share with Novartis any future associated development costs. We and Novartis will also need to negotiate and agree on financial and other terms that would apply to such rights. If we exercise our option to obtain Novartis-controlled rights to develop and commercialize a pre-filled syringe product in the United States, we will be obligated to either enter into a supply agreement with Novartis under which we will pay Novartis its manufacturing cost plus a specified percentage margin for supplies of Fovista products in pre-filled syringes that Novartis supplies to us, or obtain supplies of products in pre-filled syringes from a third party manufacturer and pay Novartis a low single-digit percentage of our net sales of such products.

We have retained control over the design and execution of our pivotal Phase 3 clinical program for Fovista and remain responsible for funding the costs of that program, subject to Novartis's responsibility to provide Lucentis, an anti-VEGF drug to which Novartis has rights in the Novartis Territory, for use in the Phase 3 trials already initiated and in other Phase 2 and Phase 3 clinical trials in the Novartis Territory initiated following the effective date of the Novartis Agreement. Novartis will have control over, and will be responsible for the costs of, all other clinical trials that may be required to obtain marketing approvals in the Novartis Territory for licensed products under the agreement. Novartis is also responsible for costs associated with co-formulation development, pre-filled syringe development and other development costs in the Novartis Territory, but excluding regulatory filing fees in the European Union for the standalone Fovista product, for which we will be responsible.

The Novartis Agreement, unless earlier terminated by us or Novartis, will expire upon the expiration of Novartis's obligation to pay us royalties on net sales of licensed products. We and Novartis each may terminate the Novartis Agreement if the other party materially breaches the agreement and does not cure such breach within a specified cure period, if the other party experiences any specified insolvency event, if the other party challenges or assists a third party in challenging the validity or enforceability of certain patent rights controlled by the terminating party, or if the parties are prevented in any manner that materially adversely affects the progression of the development or commercialization of licensed products for a specified period as a result of specified governmental actions. Novartis may terminate the Novartis Agreement at any time without cause, or within a specified period after a change in control of our company, as defined in the Novartis Agreement, or for specified safety reasons, effective at the end of a specified period following Novartis's written notice to us of Novartis's election to terminate the agreement. We may also terminate the agreement if Novartis determines to seek marketing approval of an alternative anti-PDGF product in the Novartis Territory as more fully described below. If we elect to terminate the Novartis Agreement because specified governmental actions prevent the parties from materially progressing the development or commercialization of licensed products as described above, we will be required to pay a substantial termination fee. Following any termination, all rights to Fovista that we granted to Novartis, including, without limitation, the right to commercialize standalone Fovista products in the Novartis Territory, will revert to us, Novartis will perform specified activities in connection with transitioning to us the rights and responsibilities for the continued development, manufacture and commercialization of the standalone Fovista product for countries in the Novartis Territory, and the parties will cooperate on an orderly wind down of development and commercialization activities for other licensed products in the Novartis Territory.

Novartis has agreed to specified limitations on its ability to in-license, acquire or commercialize any anti-PDGF product that does not contain Fovista, referred to as an Alternative Anti-PDGF Product, in the Novartis Territory and, to the extent Novartis develops, in-licenses or acquires such a product, to make such product available to us in the United States under specified option conditions. If we exercise our option, we will be obligated to make certain payments to Novartis, including specified milestone and royalty payments. The amounts of such payments will vary based on the product's stage of clinical development at the time we exercise our option, whether the product is a standalone or combination product and whether Novartis exercises an option to co-promote such product in the United States. If Novartis determines to seek marketing approval of an Alternative Anti-PDGF Product in the Novartis Territory, we will, subject to specified limitations, have the option to terminate the Novartis Agreement, convert Novartis's exclusive licenses into non-exclusive licenses, or elect to receive a royalty on sales of such product by Novartis. If we elect to terminate the Novartis Agreement, Novartis will, subject to specified limitations, be required to pay to us certain payments based on achievement, with respect to such product, of the milestones that would have otherwise applied to licensed products under the Novartis Agreement.

The agreement contains standstill provisions pursuant to which Novartis agrees to certain restrictions relating to our voting securities until marketing approval for a standalone Fovista product is granted in either the United States or the European Union. The agreement contains indemnification and dispute resolution provisions that are customary for agreements of its kind.

During the fourth quarter of 2015, we were informed by Novartis that Genentech, Inc. a Roche wholly-owned subsidiary, elected to exercise its option to participate in the financial arrangements relating to Novartis' rights under the Novartis Agreement. Roche's option originated from a pre-existing agreement between Roche and Novartis. The ex-U.S. commercialization agreement between Novartis and us, including its financial terms, remains unchanged as a result of the exercise of the opt-in right. We continue to retain sole rights to Fovista in the United States.

Government Regulation and Product Approvals

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions, including the European Union, extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining marketing approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

Review and Approval of Drugs in the United States

In the United States, the FDA approves and regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and implementing regulations. The failure to comply with requirements under the FDCA and other applicable laws at any time during the product development process, approval process or after approval may subject an applicant and/or sponsor to a variety of administrative or judicial sanctions, including refusal by the FDA to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters and other types of letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement of profits, or civil or criminal investigations and penalties brought by the FDA and the Department of Justice or other governmental entities.

A product candidate must be approved by the FDA through an NDA. An applicant seeking approval to market and distribute a new drug product in the United States must typically undertake the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's good laboratory practice, or GLP, regulations;
- submission to the FDA of an Investigational New Drug application, or IND, which must take effect before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, representing each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with good clinical practices, or GCP, to establish the safety and efficacy of the proposed drug product for each indication;
- preparation and submission to the FDA of an NDA requesting marketing for one or more proposed indications;
- review by an FDA advisory committee, where appropriate or if applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities at which the product, or components thereof, are produced to assess compliance with current Good Manufacturing Practices, or cGMP, requirements and to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;
- satisfactory completion of FDA audits of clinical trial sites to assure compliance with GCPs and the integrity of the clinical data;
- payment of user fees and securing FDA approval of the NDA; and
- compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy, or REMS, and the potential requirement to conduct post-approval studies.

Preclinical Studies

Before an applicant begins testing a compound with potential therapeutic value in humans, the drug candidate enters the preclinical testing stage. Preclinical studies include laboratory evaluation of product chemistry, toxicity and formulation, and the purity and stability of the drug substance, as well as *in vitro* and animal studies to assess the potential safety and activity of the drug for initial testing in humans and to establish a rationale for therapeutic use. The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations.

The IND and IRB Processes

An IND is an exemption from the FDCA that allows an unapproved drug to be shipped in interstate commerce for use in an investigational clinical trial and a request for FDA authorization to administer an investigational drug to humans. Such authorization must be secured prior to interstate shipment and administration of any new drug that is not the subject of an approved NDA. In support of a request for an IND, applicants must submit a protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature and plans for clinical trials, among other things, are submitted to the FDA as part of an IND. The FDA requires a 30-day waiting period after the filing of each IND before clinical trials may begin. This waiting period is designed to allow the FDA to review the IND to determine whether human research subjects will be exposed to unreasonable health risks. At any time during this 30-day period, or thereafter, the FDA may raise concerns or questions about the conduct of the trials as outlined in the IND and impose a clinical hold or partial clinical hold. In this case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin.

In addition to the foregoing IND requirements, an IRB representing each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must conduct continuing review and reapprove the study at least annually. The IRB must review and approve, among other things, the study protocol and informed consent information to be provided to study subjects. An IRB must operate in compliance with FDA regulations. An IRB can suspend or terminate approval of a clinical trial at its institution, or an institution it represents, if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

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

Human Clinical Trials in Support of an NDA

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include, among other things, the requirement that all research subjects provide their informed consent in writing before their participation in any clinical trial. Clinical trials are conducted under written study protocols detailing, among other things, the inclusion and exclusion criteria, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated.

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

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

- ***Phase 2.*** The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.

- ***Phase 3.*** These clinical trials are commonly referred to as "pivotal" studies, which denotes a study that presents the data that the FDA or other relevant regulatory agency will use to determine whether or not to approve a drug. The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, identify adverse effects, establish the overall risk-benefit profile of the product and to provide adequate information for the labeling of the product.

- ***Phase 4.*** Post-approval studies may be required to be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication.

Progress reports detailing the safety results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. In addition, IND safety reports must be submitted to the FDA for any of the following: serious and unexpected suspected adverse reactions; findings from other studies or animal or *in vitro* testing that suggest a significant risk in humans exposed to the drug; and any clinically important increase in the case of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The FDA or the sponsor or the data monitoring committee may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. The FDA will typically inspect one or more clinical sites to assure compliance with GCP and the integrity of the clinical data submitted.

Review of an NDA by the FDA

If clinical trials are successful, the next step in the drug development process is the preparation and submission to the FDA of an NDA. The NDA is the vehicle through which drug applicants formally propose that the FDA approve a new drug for marketing and sale in the United States for one or more indications. The NDA must contain a description of the manufacturing process and quality control methods, as well as results of preclinical tests, toxicology studies, clinical trials and proposed labeling, among other things. Every new drug must be the subject of an approved NDA before it may be commercialized in the United States. Under federal law, the submission of most NDAs is subject to an application user fee and the sponsor of an approved NDA is also subject to annual product and establishment user fees.

Following submission of an NDA, the FDA conducts a preliminary review of an NDA generally within 60 calendar days of its receipt and strives to inform the sponsor by the 74th day after the FDA's receipt of the submission to determine whether the application is sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. Under the Prescription Drug User Fee Act, or PDUFA, the FDA has agreed to specified performance goals in the review process of NDAs. Under that agreement, 90% of applications seeking approval of New Molecular Entities, or NMEs, are meant to be reviewed within ten months from the date on which FDA accepts the NDA for filing, and 90% of applications for NMEs that have been designated for "priority review" are meant to be reviewed within six months of the filing date. For applications seeking approval of drugs that are not NMEs, the ten-month and six-month review periods run from the date that FDA receives the application. The review process and the PDUFA goal date may be extended by the FDA for three additional months to consider new information or clarification provided by the applicant to address an outstanding deficiency identified by the FDA following the original submission.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is or will be manufactured. These pre-approval inspections may cover all facilities associated with an NDA submission, including drug component manufacturing (e.g., active pharmaceutical ingredients), finished drug product manufacturing, and control testing laboratories. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP.

In addition, as a condition of approval, the FDA may require an applicant to develop a REMS. REMS use risk minimization strategies beyond the professional labeling to ensure that the benefits of the product outweigh the potential risks. To determine whether a REMS is needed, the FDA will consider the size of the population likely to use the product, seriousness of the disease, expected benefit of the product, expected duration of treatment, seriousness of known or potential adverse events, and whether the product is an NME.

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

The FDA's Decision on an NDA

On the basis of the FDA's evaluation of the NDA and accompanying information, including the results of the inspection of the manufacturing facilities, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If and when those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

If the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess the drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, many types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Fast Track, Breakthrough Therapy, Priority Review Designations and Accelerated Approval

The FDA is authorized to designate certain products for expedited review if they are intended to address an unmet medical need in the treatment of a serious or life-threatening disease or condition. These programs are fast track designation, breakthrough therapy designation and priority review designation. The FDA may also approve certain products based on an accelerated basis.

Specifically, 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.

In 2012, Congress enacted the Food and Product 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 design the clinical trials in an efficient manner.

The FDA may designate a product for priority review if it is a product that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness. The FDA determines, on a case- by-case basis, whether the proposed product represents a significant improvement when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting product reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes, and evidence of safety and effectiveness in a new subpopulation. A priority designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA's goal for taking action on a marketing application from ten months to six months.

The FDA may grant accelerated approval to a product for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. The FDA may also grant accelerated approval for such a condition when the product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality and that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. Products granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

Post-Approval Requirements

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

establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

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

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, and its implementing regulations, as well as the Drug Supply Chain Security Act, or DSCA, which regulate the distribution and tracing of prescription drugs and prescription drug samples at the federal level, and set minimum standards for the regulation of drug distributors by the states. The PDMA, its implementing regulations and state laws limit the distribution of prescription pharmaceutical product samples, and the DSCA imposes requirements to ensure accountability in distribution and to identify and remove counterfeit and other illegitimate products from the market.

Abbreviated New Drug Applications for Generic Drugs

In 1984, with passage of the Hatch-Waxman Amendments to the FDCA, Congress established an abbreviated regulatory scheme authorizing the FDA to approve generic drugs that are shown to contain the same active ingredients as, and to be bioequivalent to, drugs previously approved by the FDA pursuant to NDAs. To obtain approval of a generic drug, an applicant must submit an abbreviated new drug application, or ANDA, to the agency. An ANDA is a comprehensive submission that contains, among other things, data and information pertaining to the active pharmaceutical ingredient, bioequivalence, drug product formulation, specifications and stability of the generic drug, as well as

analytical methods, manufacturing process validation data and quality control procedures. ANDAs are "abbreviated" because they generally do not include preclinical and clinical data to demonstrate safety and effectiveness. Instead, in support of such applications, a generic manufacturer may rely on the preclinical and clinical testing previously conducted for a drug product previously approved under an NDA, known as the reference-listed drug, or RLD.

Specifically, in order for an ANDA to be approved, the FDA must find that the generic version is identical to the RLD with respect to the active ingredients, the route of administration, the dosage form, the strength of the drug and the conditions of use of the drug. At the same time, the FDA must also determine that the generic drug is "bioequivalent" to the innovator drug. Under the statute, a generic drug is bioequivalent to a RLD if "the rate and extent of absorption of the drug do not show a significant difference from the rate and extent of absorption of the listed drug..." Upon approval of an ANDA, the FDA indicates whether the generic product is "therapeutically equivalent" to the RLD in its publication "Approved Drug Products with Therapeutic Equivalence Evaluations," also referred to as the "Orange Book." Physicians and pharmacists consider a therapeutic equivalent generic drug to be fully substitutable for the RLD. In addition, by operation of certain state laws and numerous health insurance programs, the FDA's designation of therapeutic equivalence often results in substitution of the generic drug without the knowledge or consent of either the prescribing physician or patient.

Under the Hatch-Waxman Amendments, the FDA may not approve an ANDA until any applicable period of non-patent exclusivity for the RLD has expired. The FDCA provides a period of five years of non-patent data exclusivity for a new drug containing a new chemical entity. For the purposes of this provision, a new chemical entity, or NCE, is a drug that contains no active moiety, which is the molecule or ion responsible for the action of the drug substance, that has previously been approved by the FDA in any other NDA. In cases where such NCE exclusivity has been granted, an ANDA may not be filed with the FDA until the expiration of five years unless the submission is accompanied by a Paragraph IV certification, in which case the applicant may submit its application four years following the original product approval. The FDCA also provides for a period of three years of exclusivity if the NDA includes reports of one or more new clinical investigations, other than bioavailability or bioequivalence studies, that were conducted by or for the applicant and are essential to the approval of the application.

505(b)(2) NDAs

As an alternative path to FDA approval for modifications to formulations or uses of products previously approved by the FDA pursuant to an NDA, an applicant may submit an NDA under Section 505(b)(2) of the FDCA. Section 505(b)(2) was enacted as part of the Hatch-Waxman Amendments and permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by, or for, the applicant. If the 505(b)(2) applicant can establish that reliance on FDA's previous findings of safety and effectiveness is scientifically and legally appropriate, it may eliminate the need to conduct certain preclinical or clinical studies of the new product. The FDA may also require companies to perform additional studies or measurements, including clinical trials, to support the change from the previously approved RLD. The FDA may then approve the new product candidate for all, or some, of the label indications for which the RLD has been approved, as well as for any new indication sought by the 505(b)(2) applicant.

Hatch-Waxman Patent Certification and the 30-Month Stay

Upon approval of an NDA or a supplement thereto, NDA sponsors are required to list with the FDA each patent with claims that cover the applicant's product or an approved method of using the product. Each of the patents listed by the NDA sponsor is published in the Orange Book. When an ANDA or 505(b)(2) applicant files its application with the FDA, the applicant is required to certify to the FDA concerning any patents listed for the RLD in the Orange Book, except for patents covering

methods of use for which the ANDA applicant is not seeking approval. Specifically, the applicant must certify with respect to each patent that:

- the required patent information has not been filed;
- the listed patent has expired;
- the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or
- the listed patent is invalid, unenforceable or will not be infringed by the new product.

A certification that the new product will not infringe the already approved RLD's listed patents or that such patents are invalid or unenforceable is called a Paragraph IV certification. If the applicant does not challenge the listed patents or indicates that it is not seeking approval of a patented method of use, the application will not be approved until all the listed patents claiming the referenced product have expired (other than method of use patents involving indications for which the applicant is not seeking approval).

If the ANDA or 505(b)(2) applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA or the 505(b)(2) application has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days after the receipt of a Paragraph IV certification automatically prevents the FDA from approving the ANDA or 505(b)(2) application until the earlier of 30 months after the receipt of the Paragraph IV notice, expiration of the patent, or a decision in the infringement case that is favorable to the applicant. The ANDA or 505(b)(2) application also will not be approved until any applicable non-patent exclusivity listed in the Orange Book for the branded reference drug has expired.

Patent Term Restoration and Extension

A patent claiming a new drug product or its method of use may be eligible for a limited patent term extension, also known as patent term restoration, under the Hatch-Waxman Amendments, which permits a patent restoration of up to five years for patent term lost during product development and the FDA regulatory review. Patent term extension is generally available only for drug products whose active ingredient has not previously been approved by the FDA. The restoration period granted is typically one-half the time between the effective date of an IND and the submission date of an NDA, plus the time between the submission date of an NDA and the ultimate approval date. Patent term extension cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date. Only one patent applicable to an approved drug product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent in question. A patent that covers multiple drugs for which approval is sought can only be extended in connection with one of the approvals. The United States Patent and Trademark Office (PTO) reviews and approves the application for any patent term extension in consultation with the FDA.

Pediatric Studies and Exclusivity

Under the Pediatric Research Equity Act, an NDA or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the drug product for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. With enactment of the FDASIA in 2012, sponsors must also submit pediatric study plans prior to the assessment data. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests, and any other information required by regulation. The applicant, the FDA, and the FDA's internal review committee must then review the

information submitted, consult with each other, and agree upon a final plan. The FDA or the applicant may request an amendment to the plan at any time.

The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Additional requirements and procedures relating to deferral requests and requests for extension of deferrals are contained in FDASIA. Unless and until FDA promulgates a regulation stating otherwise, the pediatric data requirements do not apply to products with orphan designation.

Pediatric exclusivity is another type of marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of marketing protection to the term of any existing regulatory exclusivity or patent protection, including the non-patent and orphan exclusivity. This six-month exclusivity may be granted if an NDA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA's request, the additional protection is granted. If reports of requested pediatric studies are submitted to and accepted by the FDA within the statutory time limits, whatever statutory or regulatory periods of exclusivity or patent protection cover the product are extended by six months. This is not a patent term extension, but it effectively extends the regulatory period during which the FDA cannot approve another application. With regard to patents, the six-month pediatric exclusivity period will not attach to any patents for which an ANDA or 505(b)(2) applicant submitted a paragraph IV patent certification, unless the NDA sponsor or patent owner first obtains a court determination that the patent is valid and infringed by the proposed product.

Orphan Drug Designation and Exclusivity

Under the Orphan Drug Act, the FDA may designate a drug product as an "orphan drug" if it is intended to treat a rare disease or condition, generally meaning that it affects fewer than 200,000 individuals in the United States, or more in cases in which there is no reasonable expectation that the cost of developing and making a drug product available in the United States for treatment of the disease or condition will be recovered from sales of the product. A company must request orphan drug designation before submitting an NDA for the drug and rare disease or condition. If the request is granted, the FDA will disclose the identity of the therapeutic agent and its potential use. Orphan drug designation does not shorten the PDUFA goal dates for the regulatory review and approval process, although it does convey certain advantages such as tax benefits and exemption from the PDUFA application fee.

If a product with orphan designation receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will receive orphan drug exclusivity. Orphan drug exclusivity means that the FDA may not approve another sponsor's marketing application for the same drug for the same indication for seven years, except in certain limited circumstances. Orphan exclusivity does not block the approval of a different drug for the same rare disease or condition, nor does it block the approval of the same drug for different indications. If a drug designated as an orphan drug ultimately receives marketing approval for an indication broader than what was designated in its orphan drug application, it may not be entitled to exclusivity. Orphan exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same drug for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand.

Review and Approval of Drugs in Europe and other Foreign Jurisdictions

In addition to regulations in the United States, a manufacturer is subject to a variety of regulations in foreign jurisdictions to the extent it chooses to sell any drug products in those foreign countries. Even if a manufacturer obtains FDA approval of a product, it must still obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. To obtain regulatory approval of an investigational drug in the European Union, a manufacturer must submit a marketing authorization application, or MAA, to the European Medicines Agency, or EMA. For other countries outside of the European Union, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, clinical trials are to be conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

Clinical Trial Approval in the European Union

Pursuant to the currently applicable Clinical Trials Directive 2001/20/EC and the Directive 2005/28/EC on Good Clinical Practice, an applicant must obtain approval from the competent national authority of the European Union Member State, or the EU Member State, in which the clinical trial is to be conducted. If the clinical trial is conducted in different EU Member States, the competent authorities in each of these EU Member States must provide their approval for the conduct of the clinical trial. Furthermore, the applicant may only start a clinical trial at a specific study site after the competent ethics committee has issued a favorable opinion.

In April 2014, the European Union adopted a new Clinical Trials Regulation (EU) No 536/2014, which is set to replace the current Clinical Trials Directive 2001/20/EC. The new Clinical Trials Regulation will be directly applicable to and binding in all 28 EU Member States without the need for any national implementing legislation. The new Clinical Trials Regulation (EU) No 536/2014 will become applicable no earlier than 28 May 2016. It will overhaul the current system of approvals for clinical trials in the European Union. Specifically, the new legislation aims at simplifying and streamlining the approval of clinical trials in the European Union. Under the new coordinated procedure for the approval of clinical trials, the sponsor of a clinical trial will be required to submit a single application for approval of a clinical trial to a reporting EU Member State (RMS) through an EU Portal. The submission procedure will be the same irrespective of whether the clinical trial is to be conducted in a single EU Member State or in more than one EU Member State. The Clinical Trials Regulation also aims to streamline and simplify the rules on safety reporting for clinical trials.

Marketing Authorization

In the European Union, marketing authorizations for medicinal products may be obtained through several different procedures founded on the same basic regulatory process.

The centralized procedure provides for the grant of a single marketing authorization that is valid for all EU Member States. The centralized procedure is compulsory for medicinal products produced by certain biotechnological processes, products designated as orphan medicinal products, and products with a new active substance indicated for the treatment of certain diseases. It is optional for those products that are highly innovative or for which a centralized process is in the interest of patients. Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP. Accelerated evaluation may be granted by the CHMP in exceptional cases. These are defined as circumstances in which a medicinal product is expected to be of a "major public health interest." Three cumulative criteria must be fulfilled in such circumstances: the seriousness of the disease, such as severely disabling or

life-threatening diseases, to be treated; the absence or insufficiency of an appropriate alternative therapeutic approach; and anticipation of high therapeutic benefit. In these circumstances, the EMA ensures that the opinion of the CHMP is given within 150 days.

The decentralized procedure provides for approval by one or more other concerned EU Member States of an assessment of an application for marketing authorization conducted by one EU Member State, known as the reference EU Member State. In accordance with this procedure, an applicant submits an application for marketing authorization to the reference EU Member State and the concerned EU Member States. This application is identical to the application that would be submitted to the EMA for authorization through the centralized procedure. The reference EU Member State prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. The resulting assessment report is submitted to the concerned EU Member States which, within 90 days of receipt, must decide whether to approve the assessment report and related materials.

If a concerned EU Member State cannot approve the assessment report and related materials due to concerns relating to a potential serious risk to public health, disputed elements may be referred to the European Commission, whose decision is binding on all EU Member States. In accordance with the mutual recognition procedure, the sponsor applies for national marketing authorization in one EU Member State. Upon receipt of this authorization the sponsor can then seek the recognition of this authorization by other EU Member States. Authorization in accordance with either of these procedures will result in authorization of the medicinal product only in the reference EU Member State and in the other concerned EU Member States.

A marketing authorization may be granted only to an applicant established in the European Union. Regulation No. 1901/2006 provides that, prior to obtaining a marketing authorization in the European Union, an applicant must demonstrate compliance with all measures included in a Pediatric Investigation Plan, or PIP, approved by the Pediatric Committee of the EMA, covering all subsets of the pediatric population, unless the EMA has granted a product-specific waiver, class waiver, or a deferral for one or more of the measures included in the PIP.

Regulatory Data Exclusivity in the European Union

Innovative medicinal products authorized in the European Union on the basis of a full MAA (as opposed to an application for marketing authorization that relies on data available in the marketing authorization dossier for another, previously approved, medicinal product) are entitled to eight years of data exclusivity. During this period, applicants for authorization of generic versions of these innovative products cannot rely on data contained in the marketing authorization dossier submitted for the innovative medicinal product. Innovative medicinal products are also entitled to ten years' of market exclusivity. During this ten year period no generic version of the medicinal product can be placed on the EU market. The overall ten-year period will be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to authorization, is held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new chemical entity so that the innovator gains the prescribed period of data exclusivity, another company may market another version of the product if such company obtained marketing authorization based on an MAA with a complete independent data package of pharmaceutical tests, preclinical tests and clinical trials.

Periods of Authorization and Renewals in the European Union

A marketing authorization is valid for five years, in principle, and it may be renewed after five years on the basis of a reevaluation of the risk-benefit balance by the EMA or by the competent authority of the relevant EU Member State. To that end, the marketing authorization holder must

provide the EMA or the relevant competent authority of the EU Member State with a consolidated version of the file in respect of quality, safety and efficacy, including all variations introduced since the marketing authorization was granted, at least six months before the marketing authorization ceases to be valid. Once renewed, the marketing authorization is valid for an unlimited period, unless the European Commission or the relevant competent authority of the EU Member State decides, on justified grounds relating to pharmacovigilance, to proceed with one additional five-year renewal period. Any marketing authorization that is not followed by the marketing of the medicinal product on the EU market (in the case of the centralized procedure) or on the market of the EU Member State which delivered the marketing authorization within three years after authorization ceases to be valid.

Regulatory Requirements after Marketing Authorization

As in the United States, marketing authorization holders and manufacturers of medicinal products are subject to comprehensive regulatory oversight by the EMA and the competent authorities of the individual EU Member States both before and after grant of the manufacturing and marketing authorizations.

The holder of an EU marketing authorization for a medicinal product must also comply with EU pharmacovigilance legislation and its related regulations and guidelines, which detail requirements for conducting pharmacovigilance or the assessment and monitoring of the safety of medicinal products. These rules can impose on central marketing authorization holders for medicinal products the obligation to conduct a labor intensive collection of data regarding the risks and benefits of marketed products and to engage in ongoing assessments of those risks and benefits, including the possible requirement to conduct additional clinical studies.

The manufacturing process for medicinal products in the European Union is highly regulated and regulators may shut down manufacturing facilities that they believe do not comply with regulations. Manufacturing requires a manufacturing authorization, and the manufacturing authorization holder must comply with various requirements set out in the applicable EU laws, regulations and guidance, including Directive 2001/83/EC, Directive 2003/94/EC, Regulation (EC) No 726/2004 and the European Commission Guidelines for Good Manufacturing Practice. These requirements include compliance with EU cGMP standards when manufacturing medicinal products and active pharmaceutical ingredients, including the manufacture of active pharmaceutical ingredients outside of the EU with the intention to import the active pharmaceutical ingredients into the European Union. Similarly, the distribution of medicinal products into and within the EU is subject to compliance with the applicable EU laws, regulations and guidelines, including the requirement to hold appropriate authorizations for distribution granted by the competent authorities of the EU Member States.

In the European Union, the advertising and promotion of products are subject to EU Member States' laws governing promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. In addition, other legislation adopted by individual EU Member States may apply to the advertising and promotion of medicinal products. These laws require that promotional materials and advertising in relation to medicinal products comply with the product's Summary of Product Characteristics, or SmPC, as approved by the competent authorities. Promotion of a medicinal product that does not comply with the SmPC is considered to constitute off-label promotion. The off-label promotion of medicinal products is prohibited in the European Union. The applicable laws at the European Union level and in the individual EU Member States also prohibit the direct-to-consumer advertising of prescription-only medicinal products. These laws may further limit or restrict the advertising and promotion of products to the general public and may also impose limitations on promotional activities with health care professionals.

Pediatric Studies and Exclusivity

Prior to obtaining a marketing authorization in the European Union, applicants must demonstrate compliance with all measures included in an EMA-approved PIP covering all subsets of the pediatric population, unless the EMA has granted a product-specific waiver, a class waiver, or a deferral for one or more of the measures included in the PIP. The respective requirements for all marketing authorization procedures are laid down in Regulation (EC) No 1901/2006, the so-called Pediatric Regulation. This requirement also applies when a company wants to add a new indication, pharmaceutical form or route of administration for a medicine that is already authorized. The Pediatric Committee of the EMA, or PDCO, may grant deferrals for some medicines, allowing a company to delay development of the medicine for children until there is enough information to demonstrate its effectiveness and safety in adults. The PDCO may also grant waivers when development of a medicine for children is not needed or is not appropriate, such as for diseases that only affect the elderly population. Before an MAA can be filed, or an existing marketing authorization can be amended, the EMA determines that companies actually comply with the agreed studies and measures listed in each relevant PIP. If an applicant obtains a marketing authorization in all EU Member States, or a marketing authorization granted in the Centralized Procedure by the European Commission, and the study results for the pediatric population are included in the product information, even when negative, the medicine is then eligible for an additional six month period of qualifying patent protection through extension of the term of the Supplementary Protection Certificate, or SPC.

Orphan Drug Designation and Exclusivity in the European Union

Regulation (EC) No 141/2000 and Regulation (EC) No. 847/2000 provide that a product can be designated as an orphan medicinal product by the European Commission if its sponsor can establish that the product is intended for the diagnosis, prevention or treatment of: (1) a life-threatening or chronically debilitating condition affecting not more than five in ten thousand persons in the European Union when the application is made, or (2) a life-threatening, seriously debilitating or serious and chronic condition in the European Union and that without incentives the medicinal product is unlikely to be developed. For either of these conditions, the applicant must demonstrate that there exists no satisfactory method of diagnosis, prevention or treatment of the condition in question that has been authorized in the European Union or, if such method exists, the medicinal product will be of significant benefit to those affected by that condition.

Once authorized, orphan medicinal products are entitled to ten years of market exclusivity in all EU Member States and, in addition, a range of other benefits during the development and regulatory review process, including scientific assistance for study protocols, authorization through the centralized marketing authorization procedure covering all member countries and a reduction or elimination of registration and marketing authorization fees. However, marketing authorization may be granted to a similar medicinal product with the same orphan indication during the ten year period with the consent of the marketing authorization holder for the original orphan medicinal product or if the manufacturer of the original orphan medicinal product is unable to supply sufficient quantities. Marketing authorization may also be granted to a similar medicinal product with the same orphan indication if the product is safer, more effective or otherwise clinically superior to the original orphan medicinal product. The period of market exclusivity may, in addition, be reduced to six years if it can be demonstrated on the basis of available evidence that the original orphan medicinal product is sufficiently profitable not to justify maintenance of market exclusivity.

Pharmaceutical Coverage, Pricing and Reimbursement

In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Significant uncertainty exists as to the coverage

and reimbursement status of products approved by the FDA and other government authorities. Thus, even if a product candidate is approved, sales of the product will depend, in part, on the extent to which third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers and managed care organizations, provide coverage, and establish adequate reimbursement levels for, the product. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors are increasingly challenging the prices charged, examining the medical necessity, and reviewing the cost-effectiveness of medical products and services and imposing controls to manage costs. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the approved products for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable marketing approvals. Nonetheless, product candidates may not be considered medically necessary or cost effective. A decision by a third-party payor not to cover a product candidate could reduce physician utilization once the product is approved and have a material adverse effect on sales, results of operations and financial condition. Additionally, a payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage and reimbursement for the product, and the level of coverage and reimbursement can differ significantly from payor to payor.

The containment of healthcare costs also has become a priority of federal, state and foreign governments and the prices of drugs have been a focus in this effort. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit a company's revenue generated from the sale of any approved products. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which a company or its collaborators receive marketing approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Outside the United States, ensuring adequate coverage and payment for a product also involves challenges. Pricing of prescription pharmaceuticals is subject to governmental control in many countries. Pricing negotiations with governmental authorities can extend well beyond the receipt of regulatory marketing approval for a product and may require a clinical trial that compares the cost effectiveness of a product to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in commercialization.

In the European Union, pricing and reimbursement schemes vary widely from country to country. Some countries provide that products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular drug candidate to currently available therapies or so called health technology assessments, in order to obtain reimbursement or pricing approval. For example, the European Union provides options for its member states to restrict the range of products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the product on the market. Other member states allow companies to fix their own prices for products, but monitor and control prescription volumes and issue guidance to physicians to limit prescriptions.

Recently, many countries in the European Union have increased the amount of discounts required on pharmaceuticals and these efforts could continue as countries attempt to manage healthcare expenditures, especially in light of the severe fiscal and debt crises experienced by many countries in the European Union. The downward pressure on health care costs in general, particularly prescription drugs, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states, and parallel trade, i.e., arbitrage between low-priced and high-priced member states, can further reduce prices. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any products, if approved in those countries.

Healthcare Law and Regulation

Healthcare providers and third-party payors play a primary role in the recommendation and prescription of drug products that are granted marketing approval. Arrangements with providers, consultants, third-party payors and customers are subject to broadly applicable fraud and abuse, anti-kickback, false claims laws, reporting of payments to physicians and teaching physicians and patient privacy laws and regulations and other healthcare laws and regulations that may constrain business and/or financial arrangements. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid;

- the federal civil and criminal false claims laws, including the civil False Claims Act, and civil monetary penalties laws, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false, fictitious or fraudulent or knowingly making, using or causing to made or used a false record or statement to avoid, decrease or conceal an obligation to pay money to the federal government;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created additional federal criminal laws that prohibit, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, and their respective implementing regulations, including the Final Omnibus Rule published in January 2013, which impose obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

- the federal false statements statute, which prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;

- the federal transparency requirements known as the federal Physician Payments Sunshine Act, under the Patient Protection and Affordable Care Act, as amended by the Health Care Education Reconciliation Act, or the Affordable Care Act, which requires certain manufacturers

of drugs, devices, biologics and medical supplies to report annually to the Centers for Medicare & Medicaid Services, or CMS, within the United States Department of Health and Human Services, information related to payments and other transfers of value made by that entity to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members; and

- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to healthcare items or services that are reimbursed by 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 in addition to requiring drug manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Healthcare Reform

A primary trend in the United States healthcare industry and elsewhere is cost containment. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States.

By way of example, the United States and state governments continue to propose and pass legislation designed to reduce the cost of healthcare. In March 2010, the United States Congress enacted the Affordable Care Act, which, among other things, includes changes to the coverage and payment for products under government health care programs. Among the provisions of the Affordable Care Act of importance to potential drug candidates are:

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

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

- expanded manufacturers' rebate liability under the Medicaid Drug Rebate Program by increasing the minimum rebate for both branded and generic drugs and revising the definition of "average manufacturer price," or AMP, for calculating and reporting Medicaid drug rebates on outpatient prescription drug prices and extending rebate liability to prescriptions for individuals enrolled in Medicare Advantage plans;

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

- expanded the types of entities eligible for the 340B drug discount program;

- established the Medicare Part D coverage gap discount program by requiring manufacturers to provide a 50% point-of-sale-discount off the negotiated price of applicable brand drugs to

eligible beneficiaries during their coverage gap period as a condition for the manufacturers' outpatient drugs to be covered under Medicare Part D;

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

- established the Independent Payment Advisory Board, or IPAB, which has authority to recommend certain changes to the Medicare program to reduce expenditures by the program that could result in reduced payments for prescription drugs. However, the IPAB implementation has been not been clearly defined. The Affordable Care Act provided that under certain circumstances, IPAB recommendations will become law unless Congress enacts legislation that will achieve the same or greater Medicare cost savings; and

- established the Center for Medicare and Medicaid Innovation within CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending. Funding has been allocated to support the mission of the Center for Medicare and Medicaid Innovation from 2011 to 2019.

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

Employees

As of January 31, 2016, we had 116 full-time employees, including a total of 15 employees with M.D. or Ph.D. degrees. Of our workforce, 81 employees are engaged in research and development. None of our employees are represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

Our Corporate Information

We were incorporated under the laws of the State of Delaware in 2007. Our principal executive offices are located at One Penn Plaza, 19th Floor, New York, NY 10119, and our telephone number is (212) 845-8200. Our Internet website is http://www.ophthotech.com.

Available Information

We make available free of charge through our website our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Exchange Act. We make these reports available through our website as soon as reasonably practicable after we electronically file such reports with, or furnish such reports to, the SEC. You can find, copy and inspect information we file at the SEC's public reference room, which is located at 100 F Street, N.E., Room 1580, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's public reference room. You can review our electronically filed reports and other information that we file with the SEC on the SEC's web site at http://www.sec.gov. We also make available, free of

charge on our website, the reports filed with the SEC by our executive officers, directors and 10% stockholders pursuant to Section 16 under the Exchange Act as soon as reasonably practicable after copies of those filings are provided to us by those persons. The information contained on, or that can be accessed through, our website is not a part of or incorporated by reference in this Annual Report on Form 10-K.

Item 1A. Risk Factors.

The following risk factors and other information included in this Annual Report on Form 10-K should be carefully considered. The risks and uncertainties described below are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we presently deem less significant may also impair our business operations. Please see page 1 of this Annual Report on Form 10-K for a discussion of some of the forward-looking statements that are qualified by these risk factors. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected.

Risks Related to Our Financial Position and Need for Additional Capital

Our limited operating history may make it difficult for our stockholders to evaluate the success of our business to date and to assess our future viability.

We were incorporated and commenced active operations in 2007. Our operations to date have been focused on organizing and staffing our company, acquiring rights to product candidates, business planning, raising capital and developing Fovista, Zimura and other product candidates. We have not yet demonstrated our ability to successfully complete a large-scale, pivotal clinical trial, obtain marketing approval, manufacture at commercial scale, or arrange for a third party to do so on our behalf, or conduct sales, marketing and distribution activities necessary for successful product commercialization. Consequently, any predictions about our future success or viability may not be as accurate as they could be if we had a longer operating history.

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

We have incurred significant operating losses since our inception. We expect to incur losses for at least the next few years and may never achieve or maintain profitability.

Since inception, we have experienced significant cash outflows in funding our operations. As of December 31, 2015, we had an accumulated deficit of $405.5 million. Our net loss was $105.7 million for the year ended December 31, 2015, and $116.8 million for the year ended December 31, 2014 and we expect to continue to incur significant operating losses in 2016 and potentially 2017. To date, we have not generated any revenues from product sales and have financed our operations primarily through private placements of our preferred stock, venture debt borrowings, funds received under our royalty purchase and sale agreement with Novo A/S, which we refer to as the Novo Agreement, our initial public offering, which we closed in September 2013, our follow-on public offering, which we closed in February 2014 and funds we received under the Novartis Agreement, which we entered into in May 2014.

We have devoted substantially all of our financial resources and efforts to research and development of Fovista and Zimura and preparations for the potential commercial launch of Fovista, including manufacturing scale-up activities. We expect to continue to incur significant expenses and increasing operating losses over the next few years. Our net losses may fluctuate significantly from quarter to quarter and year to year.

Our product candidates, Fovista and Zimura, are in clinical development. We expect our expenses to continue to increase, particularly as we continue the development of Fovista in our Phase 3 clinical program, as we further evaluate the potential benefit of Fovista when administered in combination with anti-VEGF drugs in wet AMD patients through the Fovista Expansion Studies, and potentially in other ophthalmic diseases and conditions with unmet medical need, and as we pursue the development of Zimura through our Zimura development programs. We expect our expenses to increase as we initiate additional trials and as patient enrollment increases in trials that have already commenced. We also expect our expenses to increase as we manufacture validation batches of API and drug product for Fovista. In addition, our expenses will increase prior to obtaining marketing approval for Fovista as we expand our commercial infrastructure and build-up our Fovista API supply to support the anticipated launch of Fovista. Furthermore, if we obtain marketing approval for Fovista, Zimura or any other product candidate that we may develop, we expect our commercialization expenses related to product sales, marketing, distribution and manufacturing to increase significantly. For Fovista, our ex-U.S. commercialization partner Novartis is responsible for these commercialization expenses outside the United States. We are party to agreements, specifically a divestiture agreement with OSI (Eyetech), Inc., which agreement is now held by OSI Pharmaceuticals, LLC, a subsidiary of Astellas US, LLC, and license agreements with Archemix Corp., or Archemix, and Nektar Therapeutics, or Nektar, that impose significant milestone payment obligations on us in connection with our achievement of specific clinical, regulatory and commercial milestones with respect to Fovista and Zimura. For example, in connection with our entry into the Novartis Agreement, we made a milestone payment of $19.8 million to Nektar in June 2014. We are also exploring the potential of an ophthalmic formulation for tivozanib, a small molecule VEGF tyrosine kinase inhibitor for which we have an option to obtain a license, and expect our expenses to increase as we continue the preclinical development of this compound, including in the event we elect to exercise our option or in the event we trigger certain milestone payment obligations.

We expect that our expenses will further increase if and as we:

- undertake additional clinical development of Fovista, if it is approved, in support of our efforts to broaden the label for Fovista;
- conduct additional clinical trials of Zimura that may be required by regulatory authorities, including a second Phase 3 clinical trial for GA, to seek marketing approval for Zimura in any indication;
- continue to develop tivozanib for the treatment of ophthalmic diseases;
- in-license or acquire the rights to, and pursue research and development of, other complementary products, product candidates or technologies, including drug delivery technology, for the treatment of ophthalmic diseases;
- seek marketing approval for any product candidates that successfully complete clinical trials;
- hire additional clinical, manufacturing, quality control, quality assurance and scientific personnel;
- expand our outsourced manufacturing activities, expand our commercial operations and establish sales, marketing and distribution capabilities, if we receive, or expect to receive, marketing approval for any product candidates;
- maintain, expand and protect our intellectual property portfolio; and
- add operational, financial and management information systems and personnel and expand our facilities.

Our ability to become and remain profitable depends on our ability to generate revenue in excess of our expenses. Our ability to generate revenues from product sales, which we do not expect will occur until the end of 2017 at the earliest, if ever, is dependent on our obtaining marketing approval for and

commercializing our product candidates, in particular, Fovista and Zimura. We may be unsuccessful in our efforts to develop and commercialize these 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 commercializing our product candidates and achieving profitability.

We have broad discretion in the use of our available cash and other sources of funding and we may not use them effectively.

Our management has broad discretion in the use of our available cash and other sources of funding 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 in a manner that does not produce adequate income, if any, or that loses value.

We may need additional funding. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

As of December 31, 2015, we had cash, cash equivalents, and marketable securities of $391.9 million. We also had $368.9 million in total liabilities, $338.1 million of which related to the Novo Agreement and deferred revenue associated with the Novartis Agreement.

We believe that our cash, cash equivalents and marketable securities, together with the potential remaining $30.0 million enrollment-based milestone payment under the Novartis Agreement, will be sufficient to fund our operations and capital expenditure requirements as currently planned through the end of 2017. 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. Our capital requirements will depend on several factors, including the success of our development and commercialization of our product candidates and whether we pursue the acquisition or in-licensing and subsequent development of additional product candidates or technologies. For example, our expenses may exceed our expectations if we experience delays in enrollment or with the availability of drug supply for our clinical trials. Our expenses may also exceed our expectations if we increase our investigator fees for our clinical trials or if we further expand the scope of our clinical trials and programs, including, for example, by increasing the number of clinical trial sites or changing the geographic mix of sites at which patients are enrolled. Our costs may also exceed our expectations for other reasons, for example, if we experience issues with manufacturing validation, process development, the scale-up of manufacturing activities or activities to enable and qualify second source suppliers or if we decide to increase licensing or preclinical research and development activities or corporate staffing. If we are required by the U.S. Food and Drug Administration, or FDA, the European Medicines Agency, or EMA, or regulatory authorities in other jurisdictions to perform clinical or nonclinical trials or other studies in addition to those we currently expect to conduct, or if there are any delays in completing the clinical trials of Fovista or Zimura, or the development of any of other product candidates that we may develop, our expenses could increase. As a result, we may need or may seek to obtain additional funding in connection with our continuing operations prior than expected.

Moreover, our current Phase 3 clinical program for Fovista is expected to continue into 2018, and we expect to incur substantial expenditures to complete the Phase 3 clinical program after the receipt of initial, top-line data, which we expect to be available during the fourth quarter of 2016 for the two Fovista Phase 3 Lucentis Trials. Furthermore, we expect the clinical development for Zimura will continue for at least the next several years. At this time, we cannot reasonably estimate the remaining

costs necessary to complete the clinical development of either Fovista or Zimura, complete manufacturing validation activities associated with Fovista and process development and manufacturing scale-up and validation activities associated with Zimura and potentially seek marketing approval for Fovista and Zimura, or the nature, timing or costs of the efforts necessary to complete the development of any other product candidate we may develop.

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

- the scope, progress, costs and results of our Phase 3 clinical program for Fovista;
- the scope, progress, costs and results of the Fovista Expansion Studies to further evaluate the potential benefit of Fovista in wet AMD when administered in combination with anti-VEGF drugs, and potentially in other ophthalmic diseases and conditions with unmet need;
- the scope, progress, costs and results of our Zimura clinical programs, including our Zimura Phase 2/3 GA Study and our Zimura Phase 2a Wet AMD Study, as well as any additional clinical trials (including a second Phase 3 trial for GA) required by regulatory authorities for us to seek marketing approval for Zimura in any indication;
- the costs and timing of manufacturing validation activities associated with Fovista;
- the costs and timing of process development and manufacturing scale-up and validation activities associated with Zimura;
- the costs, timing and outcome of regulatory reviews of Fovista and Zimura;
- the timing, scope and cost of commercialization activities for Fovista or Zimura if we receive, or expect to receive, marketing approval for either product candidate, including the costs and timing of expanding our outsourced manufacturing activities, including activities to build up our commercial drug supply and to enable and qualify second source suppliers, expanding our commercial operations and establishing product sales, marketing and distribution capabilities;
- subject to receipt of marketing approval, net revenue received from commercial sales of Fovista or Zimura, after milestone payments and royalty payments that we will be obligated to make;
- the scope, progress and results of our preclinical studies, formulation development and clinical development plans for tivozanib;
- the scope, progress, results and costs of preclinical development and/or clinical trials for any other product candidates that we may develop;
- our ability to establish collaborations on favorable terms, if at all;
- the extent to which we in-license or acquire rights to, and develop, complimentary products, product candidates or technologies, including drug delivery technologies; and
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending intellectual property-related claims.

We do not have any committed external source of funds other than the Novartis Agreement. The remaining potential milestone payments under the Novartis Agreement are subject to our achievement of specified clinical, regulatory and commercial events related to Fovista, none of which can be assured. Our future commercial revenues, if any, will be derived from sales of Fovista, Zimura or any other products that we are able to successfully develop, which, depending on the product, may not be available for several years, if at all. In addition, if approved, Fovista or Zimura or any product that we acquire or in-license may not achieve commercial success. If that is the case, we may need to obtain substantial additional financing to achieve our business objectives. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

Adequate additional financing may not be available to us on acceptable terms, or at all. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates. In addition, a default under the Novo Agreement would permit Novo A/S to foreclose on the Fovista intellectual property.

Until such time, if ever, as 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 stockholders' ownership interests will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our existing stockholders' rights as holders of our common stock. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

We are subject to diligence and other obligations under the Novo Agreement. Our obligations under the Novo Agreement are secured by collateral, which includes certain intellectual property rights, including all of our intellectual property rights relating to Fovista and regulatory approvals, if any, of Fovista. If we fail to satisfy our diligence obligations or breach any other of our obligations under the Novo Agreement and fail to cure the breach within any applicable grace period, Novo A/S could declare an event of default. In such event, Novo A/S could seek to foreclose on the collateral securing our obligations. If Novo A/S successfully does so, we would lose our rights to develop and commercialize Fovista. Our obligations under the Novo Agreement and the pledge of our intellectual property rights in and regulatory approvals, if any, of Fovista as collateral under such agreement may limit our ability to obtain debt financing.

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 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.

Risks Related to Product Development and Commercialization

We depend heavily on the success of our lead product candidate, Fovista, which we are developing to be administered in combination with anti-VEGF drugs for the treatment of patients with wet AMD. In addition, we also depend on the success of Zimura, which we are developing for the treatment of GA and wet AMD. If we are unable to complete the clinical development of either of these product candidates, if we are unable to obtain marketing approvals for either of these product candidates, or if either of these product candidates is approved and we or our commercialization partner for Fovista outside the United States, Novartis, fail to successfully commercialize the product candidate or experience significant delays in doing so, our business will be materially harmed.

We have invested and will continue to invest a significant portion of our efforts and financial resources in the development of Fovista to be administered in combination with anti-VEGF drugs for the treatment of patients with wet AMD. There remains a significant risk that we will fail to successfully develop Fovista. The results of our Phase 2b clinical trial may not be predictive of the

results of our Phase 3 clinical program due, in part, to the fact that we have no clinical data on Fovista combination therapy in any clinical trial longer than 24 weeks, that we have modified the methodology used to determine a patient's eligibility under certain of the inclusion and exclusion criteria for our Phase 3 clinical trials as compared to our Phase 2b clinical trial, that we have very limited clinical data on the effects of Fovista when administered in combination with Avastin or Eylea and that we are conducting our Phase 3 clinical trials at many clinical centers that were not included in our Phase 2b clinical trial.

We expect to have initial, top-line data from our two Fovista Phase 3 Lucentis Trials in our Phase 3 clinical program for Fovista during the fourth quarter of 2016. Although we expect to have initial top-line data from the Fovista Phase 3 Eylea/Avastin Trial in 2017, the timing of the availability of such data is dependent, in part, on our ability to locate and enroll a sufficient number of eligible patients and may be subject to particular variability. Avastin is not approved for intravitreal use in treating wet AMD, and regulatory authorities in certain countries may not allow, or physicians and patients may choose not to participate in, a clinical trial in which Avastin is administered in combination with Fovista for the treatment of wet AMD. Even if we ultimately obtain statistically significant, positive results from our Phase 3 clinical program, it is possible that such data may not be clinically relevant.

The Fovista Phase 3 Eylea/Avastin Trial commenced nine months later than the two Fovista Phase 3 Lucentis Trials. We will not have data from our Fovista Phase 3 Eylea/Avastin Trial at the time data from the other two Fovista Phase 3 Lucentis Trials becomes available. We may nonetheless decide to proceed with submitting applications for marketing approval for Fovista administered only in combination with Lucentis, or we may choose to delay our application for marketing approval until data from all three Phase 3 clinical trials are available. We plan to initially submit a New Drug Application, or NDA, to the FDA for Fovista in combination with Lucentis based upon data from the two Fovista Phase 3 Lucentis Trials and subsequently submit an amendment to the NDA with data from the Fovista Phase 3 Eylea/Avastin Trial, subject to a favorable data outcome from these trials. Alternatively, we may choose to file a supplemental NDA for Fovista in combination with Eylea or Avastin following FDA review of the NDA for Fovista in combination with Lucentis. If we determine to delay seeking approval of Fovista in combination with Eylea or Avastin pending regulatory action on our applications for Fovista in combination with Lucentis, the FDA or other regulatory authorities could defer taking action on our applications while data remain outstanding from the Fovista Phase 3 Eylea/Avastin Trial. Furthermore, although we may wish to amend our applications for marketing approval once we have data available from the Fovista Phase 3 Eylea/Avastin Trial, the FDA may not accept such an amendment. Moreover, if we subsequently amend our applications for marketing approval when data from the Fovista Phase 3 Eylea/Avastin Trial become available, we may experience further delays in our application process. The manner and timing in which we and our ex-U.S. commercialization partner, Novartis, seek marketing approval for Fovista may differ in the United States and in the European Union.

We expect that our Phase 3 clinical trials and the Fovista Expansion Studies will continue in accordance with their protocols after we submit applications for marketing approval, and the conclusions of those trials may yield data that are inconsistent with the initial data used to support our applications. We are also supplying Fovista for third-party sponsored clinical trials. In addition, Novartis may commence additional preclinical and clinical trials for Fovista including those that it deems necessary for regulatory approval and/or pricing reimbursement outside of the United States. Adverse safety events or negative or inconclusive efficacy results in any of these trials may impact the progress of our Phase 3 clinical program, including our ability to receive marketing approval, and, if such data are received following a potential approval, our future sales of Fovista. As a result of these and other factors, we cannot accurately predict when or if Fovista will prove effective or safe in humans or will receive marketing approval.

In addition, we have invested substantial financial resources in the development of Zimura for the treatment of patients with both dry and wet AMD. There is a significant risk that we will fail to successfully develop Zimura. We have very limited data from our completed Phase 2a clinical trial evaluating the safety and effectiveness of Zimura for the treatment of dry AMD and our completed Phase 2a clinical trial evaluating the safety and effectiveness of Zimura administered in combination with Lucentis for the treatment of wet AMD. These trials enrolled 47 patients and 60 patients, respectively, and neither trial included a control arm.

Despite our current development plans and ongoing efforts, we may not complete any of our ongoing clinical trials or any other clinical trial for Fovista, Zimura or any other product candidates that we may develop in accordance with our plans. Moreover, the timing of the completion of, and the availability of initial results from, clinical trials is difficult to predict and is dependent, in part, on our ability to locate and enroll a sufficient number of eligible patients on a timely basis and, in the case of Zimura, on our ability to complete process development and manufacturing scale-up activities. Furthermore, our development plans may change based on feedback we may receive from regulatory authorities throughout the development process.

Our ability to successfully commercialize our product candidates, in particular Fovista and Zimura, will require us to be successful in a range of challenging activities, including:

- obtaining favorable results from our clinical trials, including, for Fovista, from our Phase 3 clinical program and in our other clinical trials involving Fovista, including the Fovista Expansion Studies, and for Zimura, our ongoing Zimura clinical programs;
- for Fovista, applying for and receiving marketing approvals from applicable regulatory authorities for the use of Fovista in combination with anti-VEGF drugs for the treatment of wet AMD, and in particular, which anti-VEGF drugs are included in any approved label given that Avastin, one of the current standard of care anti-VEGF drugs, is not approved for intravitreal use;
- for Zimura, applying for and receiving marketing approvals from applicable regulatory authorities for the use of Zimura for the treatment of GA or the use of Zimura for other indications for which we may seek approval;
- making arrangements with third-party manufacturers, receiving regulatory approval of our manufacturing processes and our third-party manufacturers' facilities from applicable regulatory authorities and ensuring adequate supply of drug product;
- establishing sales, marketing and distribution capabilities to effectively market and sell Fovista in the United States with our own specialty sales force targeting retinal specialists;
- successfully maintaining our arrangement with Novartis to commercialize Fovista in markets outside the United States;
- achieving acceptance of the product candidate, if and when approved, by patients, the medical community and third-party payors;
- for Fovista, the continued, widespread use of anti-VEGF drugs in the treatment of wet AMD in combination with which Fovista will be used;
- if our product candidates are approved, obtaining from governmental and third-party payors adequate coverage and reimbursement for our product candidates and associated injection procedures;
- 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 following approval;

- obtaining and maintaining patent and trade secret protection and regulatory exclusivity;
- protecting and enforcing our rights in our intellectual property portfolio; and
- complying with all applicable regulatory requirements, including FDA Good Manufacturing Practices, or GMP, standards and rules and regulations governing promotional and other marketing activities.

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. In addition, our profitability and commercial success will depend, in part, on the ability of our commercialization partners, including, with respect to Fovista, the ability of Novartis as our ex-U.S. commercialization partner, to effectively market and sell product candidates that we develop, if approved outside the United States, and to obtain adequate coverage and reimbursement of such product candidates from governmental and third-party payors. 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.

If clinical trials of Fovista, Zimura or any other product candidate that we may develop fail to demonstrate safety and efficacy to the satisfaction of the FDA, the EMA or other regulatory authorities or do not otherwise produce positive or supportive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of Fovista, Zimura or any other product candidate.

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 candidates in humans. 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. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products.

Our Phase 2b clinical trial evaluated a combination of Fovista and Lucentis. In this trial, patients treated with a combination of 0.3 mg of Fovista and Lucentis did not achieve statistically significant superiority compared to Lucentis monotherapy based on the pre-specified primary endpoint of mean change in visual acuity from baseline at the 24 week time point. Although a combination of 1.5 mg of Fovista and Lucentis demonstrated statistically significant superiority in this trial compared to Lucentis monotherapy based on the pre-specified primary endpoint of mean change in visual acuity from baseline at the 24 week time point, we may nonetheless fail to achieve success in our two Fovista Phase 3 Lucentis Trials, which are evaluating a combination of 1.5 mg of Fovista and Lucentis, for a variety of potential reasons.

- The primary endpoint of mean change in visual acuity in our Phase 3 clinical program will be measured 12 months after the first dose of Fovista. This time point is substantially longer than 24 weeks after the first dose of Fovista, which was the time point at which the primary endpoint of mean change in visual acuity in our Phase 2b clinical trial was measured. Additionally, we have modified the methodology used to determine a patient's eligibility under certain of the inclusion and exclusion criteria for our Phase 3 clinical trials as compared to our Phase 2b

clinical trial. If the positive results we observed at 24 weeks in our Phase 2b clinical trial are not observed at 12 months, we likely will not receive marketing approval for Fovista.

- Retrospective subgroup analyses that we performed on the results of our Phase 2b clinical trial may not be predictive of the results of our Phase 3 clinical program. While we believe that our retrospective analyses further support the results from our primary endpoint and our proposed mechanisms of action, retrospective analyses performed after unmasking trial results can result in the introduction of bias and are given less weight by regulatory authorities than pre-specified analyses. In particular, our proposed mechanism of action as it relates to the inhibition of subretinal fibrosis, although scientifically rational and while supported by retrospective subgroup analysis, may not be supported by our future clinical trials. Our belief regarding Fovista's potential, when administered in combination with an anti-VEGF drug, to inhibit subretinal fibrosis and retinal scarring, may change based on our subsequent clinical trials or other factors.

- We are conducting our Phase 3 clinical trials at many clinical centers that were not included in our Phase 2b clinical trial. The introduction of new centers, and the resulting involvement of new treating physicians, can introduce additional variability into the conduct of the trials in accordance with their protocols and may result in greater variability of patient outcomes, which could adversely affect our ability to detect statistically significant differences between patients treated with 1.5 mg of Fovista administered in combination with an anti-VEGF drug and anti-VEGF drug monotherapy.

Furthermore, our Phase 3 clinical program involves the two Fovista Phase 3 Lucentis Trials testing a combination of 1.5 mg of Fovista and Lucentis for the treatment of wet AMD and the one Fovista Phase 3 Eylea/Avastin Trial testing a combination of 1.5 mg of Fovista with each of Eylea or Avastin for the treatment of wet AMD. We have very limited clinical data on the effects of Fovista when administered in combination with intravitreal injections of either Eylea or Avastin for the treatment of patients with wet AMD. Avastin is not approved for such use.

Fovista administered in combination with Lucentis was generally well tolerated in our Phase 1 and Phase 2b clinical trials. However, the results of these clinical trials may not be predictive of the results of our Phase 3 clinical program for Fovista. We have clinical data for Fovista administered in combination with Lucentis from only these two studies with a limited follow-up of a maximum of 24 weeks. As compared to our Phase 2b clinical trial, our three Phase 3 trials are longer in duration (24 months) with a 12-month time point for the primary endpoint, have a greater number of patients (approximately 1,866), have a greater number of sites (more than 250), which encompass a much larger geographical recruitment area, and result in chronic exposure to a higher rate of intraocular pressure due to an increased injection volume. Consequently, there is potential for an increase in cumulative side effects resulting from two separate intravitreal injections and increased intraocular pressure in the Fovista combination therapy patients as compared to the patients receiving monotherapy anti-VEGF treatment and there is a much longer duration of therapy and greater geographic diversity of patients in our Phase 3 trials. This increase in the number of intravitreal injections and treatment burden, increased variability of patient care due to the larger number of clinical trial sites and the broader genetic profile of the enrolled patients from a larger geographic region may result in increased susceptibility to side effects of Fovista and/or resulting from the treatment procedure. Therefore, there is the potential for an unfavorable safety and tolerability profile in the Fovista combination therapy arm of the study as compared to our Phase 2b study and monotherapy anti-VEGF studies which may be reflected in an increase in adverse events and/or serious adverse event rates (either ocular, systemic or both) in patients receiving Fovista combination therapy. For example, 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, cardiovascular disease such as myocardial infarctions, stroke, blood clots or emboli, or hospitalizations in the Fovista combination therapy patients.

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. If a combination of 1.5 mg of Fovista and Lucentis fails to achieve superiority over Lucentis monotherapy with statistical significance on the primary endpoint of mean change in visual acuity from baseline at 12 months in both of the Fovista Phase 3 Lucentis Trials, we likely will not receive marketing approval for Fovista even if the combination of 1.5 mg of Fovista with Eylea or Avastin achieves superiority over Eylea or Avastin monotherapy with statistical significance on the primary endpoint in the Fovista Phase 3 Eylea/Avastin Trial. There are a variety of other possible outcomes of our Phase 3 clinical trials. As described below, positive outcomes in one or more of our Phase 3 clinical trials may not be sufficient for the FDA or similar regulatory authorities outside the United States to grant marketing approval for Fovista.

- If a combination of 1.5 mg of Fovista and Lucentis achieves superiority over Lucentis monotherapy with statistical significance on the primary endpoint in only one of the Fovista Phase 3 Lucentis Trials and the combination of 1.5 mg of Fovista with Eylea or Avastin does not achieve superiority over Eylea or Avastin monotherapy with statistical significance on the primary endpoint in the Fovista Phase 3 Eylea/Avastin Trial, we likely will not receive marketing approval for Fovista.

- If a combination of 1.5 mg of Fovista and Lucentis achieves superiority over Lucentis monotherapy with statistical significance on the primary endpoint in only one of the Fovista Phase 3 Lucentis Trials and the combination of 1.5 mg of Fovista with Eylea or Avastin achieves superiority over Eylea or Avastin monotherapy with statistical significance on the primary endpoint in the Fovista Phase 3 Eylea/Avastin Trial, the FDA or similar regulatory authorities outside the United States, nonetheless, may not grant marketing approval for Fovista.

- Even if a combination of 1.5 mg of Fovista and an anti-VEGF drug achieves superiority over an anti-VEGF drug monotherapy with statistical significance on the primary endpoint in two or all three of our Phase 3 clinical trials, the FDA or similar regulatory authorities outside the United States, nonetheless, may not grant marketing approval for Fovista if such regulatory authorities do not believe that the benefits offered by Fovista administered in combination with an anti-VEGF drug are clinically meaningful or that such benefits outweigh the observed or potential risks.

In the United States, Eylea and Avastin are widely used for the treatment of wet AMD. If a combination of 1.5 mg of Fovista with Eylea or Avastin does not achieve superiority over Eylea or Avastin monotherapy with statistical significance on the primary endpoint of mean change in visual acuity from baseline at 12 months in the Fovista Phase 3 Eylea/Avastin Trial, our ability to successfully commercialize Fovista in combination with any anti-VEGF drug could be harmed materially. In addition, any failure of Fovista administered in combination with Eylea or Avastin to achieve superiority over Eylea or Avastin monotherapy with statistical significance on the primary endpoint could cause the FDA or similar regulatory authorities outside the United States to require additional clinical trials or other research before granting marketing approval of Fovista for use in combination with any anti-VEGF drug, including Lucentis, for the treatment of patients with wet AMD. In addition, Avastin is not approved for use in treating wet AMD, either in the United States or outside of the United States, and regulatory authorities may not permit the product label for Fovista to include the use of Fovista in combination with Avastin if we were otherwise able to obtain marketing approval for Fovista for use in combination with other anti-VEGF drugs.

The protocols for our Phase 3 clinical trials and other supporting information are subject to review by the FDA and regulatory authorities outside the United States. The FDA is not obligated to comment on our protocols within any specified time period or at all or to affirmatively clear or approve our Phase 3 clinical program. We submitted the protocols to the FDA for the two Fovista Phase 3

Lucentis Trials in August 2013 and for the Fovista Phase 3 Eylea/Avastin Trial in April 2014. The FDA or other regulatory authorities may request additional information, require us to conduct additional nonclinical trials or require us to modify our proposed Phase 3 clinical program, including its endpoints, patient enrollment criteria or selection of anti-VEGF drugs, to receive clearance to initiate such program or to continue such program once initiated.

Outside the United States, we have obtained all of the necessary country approvals to proceed with our Phase 3 trials except for the Brazilian approval required to proceed with our Fovista Phase 3 Eylea/Avastin Trial, which we are pursuing. In the European Union, in addition to filing in selected countries with national competent authorities responsible for approving clinical trial applications, we have had interactions regarding our planned application for marketing approval with the EMA's Committee for Medicinal Products for Human Use, or CHMP, which is the committee responsible for preparing opinions on questions concerning medicines for human use. The CHMP informed us that the final label for Fovista, if it receives marketing approval, may be required to specify the licensed anti-VEGF drugs that were studied in combination with Fovista, given that Avastin is not approved for intravitreal use, rather than a label specifying Fovista for use in combination with any anti-VEGF drug.

The protocol for our Zimura Phase 2/3 GA Study calls for an initial stage to include approximately 300 patients. At month 18 of the trial, we plan to conduct an interim analysis to assess the safety and efficacy of Zimura compared to sham. Upon review of this interim analysis, a determination will be made whether to continue the trial and whether to expand the trial by enrolling additional patients. We may not have access to all of the available data from the trial when performing the interim analysis and in making the determination to continue and/or expand the trial. In addition, even if the trial is expanded following the interim analysis based on 18-month data, the trial may not yield positive data at the 24-month time point or for the additional patients enrolled in the trial. Moreover, assuming the Zimura Phase 2/3 GA Study progresses into the expansion stage, prior to seeking marketing approval for Zimura, we will need to conduct an additional Phase 3 clinical trial for Zimura for GA, which we may decide to initiate before having access to all of the data from the Zimura Phase 2/3 GA Study and based solely on the determination to expand the Zimura Phase 2/3 GA Study upon review of the interim analysis. Furthermore, we may be required by regulatory authorities to conduct other, additional clinical trials of Zimura, prior to seeking marketing approval in GA. Our development plans for Zimura, including our plans for our Zimura Phase 2/3 GA Study, may change based on feedback we may receive from regulatory authorities during development, including during the Zimura Phase 2/3 GA Study, or for other reasons.

If we are required to conduct additional clinical trials or other testing of Fovista, Zimura or any other product candidate that we may develop beyond those that we contemplate, 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.

If serious adverse or unacceptable side effects are identified during the development of Fovista, Zimura or any other product candidate that we may develop, we may need to abandon or limit our development of Fovista, Zimura or any other product candidate.

If Fovista, Zimura or any other product candidates we may develop are associated with serious adverse events or undesirable side effects in 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 compounds that initially showed promise in clinical or earlier stage testing have later been found to cause side effects that prevented further development of the compound.

Fovista administered in combination with Lucentis was generally well tolerated in our Phase 1 clinical trial and our Phase 2b clinical trials. However, we have clinical data for Fovista administered in combination with Lucentis from only two clinical trials with a limited follow-up of a maximum of 24 weeks. As compared to our Phase 2b clinical trial, our three Phase 3 trials are longer in duration (24 months) with a 12 month time point for the primary efficacy endpoint, have a greater number of patients (approximately 1,866), have a greater number of sites (more than 250), which encompass a much larger geographical recruitment area, and result in chronic exposure to a higher rate of intraocular pressure due to an increased injection volume. Consequently, there is potential for an increase in cumulative side effects resulting from two separate intravitreal injections and increased intraocular pressure in the Fovista combination therapy patients as compared to the patients receiving monotherapy anti-VEGF treatment and there also is a much longer duration of therapy and greater geographic diversity of patients in our Phase 3 trials. This increase in the number of intravitreal injections and treatment burden, increased variability of patient care due to the larger number of clinical trial sites and the broader genetic profile of the enrolled patients from a larger geographic region may result in increased susceptibility to side effects of Fovista and/or resulting from treatment procedure. Therefore there is the potential for an unfavorable safety and tolerability profile in the Fovista combination therapy arm of the study as compared to our Phase 2b trial and monotherapy anti-VEGF trials which may be reflected in an increase in adverse events and/or serious adverse event rates (either ocular, systemic or both) in patients receiving Fovista combination therapy. For example, 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, cardiovascular disease such as myocardial infarctions, stroke, blood clots or emboli, or hospitalizations in patients in the Fovista combination therapy arm of each trial.

In addition, we have very limited clinical and safety data with respect to the effects of Fovista administered in combination with intravitreal injections of either Eylea or Avastin. The safety results of our trials are dependent, in part, on the safety and tolerability of the anti-VEGF drug(s) administered in combination with Fovista. Avastin is not approved for the treatment of wet AMD, and according to some third party clinical trials, may be associated with a greater risk of serious adverse events or undesirable side effects as compared to Lucentis.

We have limited data regarding the safety, tolerability and efficacy of Zimura administered for the treatment of GA or administered in combination with anti-VEGF drugs for the treatment of wet AMD. Our clinical trials for Zimura will involve multiple intravitreal injections over an extended period of time and, as such, may involve risks regarding multiple and chronic intravitreal injections, similar to those described above for Fovista.

If we experience any of a number of possible unforeseen events in connection with our clinical trials, including delays in patient enrollment, potential marketing approval or commercialization of our product candidates could be delayed or prevented.

We may not be able to initiate new or continue ongoing clinical trials for Fovista, Zimura or any other product candidate that we develop if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. In addition, our competitors have ongoing clinical trials for product candidates that treat the same indications as Fovista and Zimura, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates.

Patient enrollment is affected by other factors, including:

- severity of the disease under investigation;
- the ability of current technology to adequately define the disease state;
- eligibility criteria for the study in question;
- perceived risks and benefits of the product candidate under study;
- efforts to facilitate timely enrollment in clinical trials;
- patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- proximity and availability of clinical trial sites for prospective patients.

Our inability to locate and enroll a sufficient number of patients for our clinical trials would result in significant delays in our clinical trials, could require us to abandon one or more clinical trials altogether and could delay or prevent our receipt of necessary regulatory approvals. Enrollment delays in our clinical trials also may result in increased development costs for our product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing.

Moreover, we may experience numerous other unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon 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, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- regulators or institutional review boards 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 trial sites;
- we may decide, or regulators or institutional review boards may require us, to suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;

- the cost of clinical trials of our product candidates may be greater than we anticipate; and

- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates, such as the anti-VEGF drugs we need to use in combination with Fovista, may become insufficient or inadequate.

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

We have limited experience manufacturing Fovista and no experience manufacturing Zimura at commercial scale. As a result, delays in regulatory approval of Fovista or Zimura may occur. Also, manufacturing issues may arise that could cause delays or increase costs.

We have limited experience manufacturing the chemically synthesized aptamer comprising the API for Fovista, and no experience manufacturing the chemically synthesized aptamer comprising the API for Zimura, at commercial scale. We currently rely upon a single third-party manufacturer, Agilent Technologies, to supply us with API for both Fovista and Zimura and a different, single third-party manufacturer to provide fill-finish services for both Fovista and Zimura. Other than our agreements with Agilent Technologies with respect to our clinical and commercial supplies of Fovista API, all of our manufacturing arrangements are on a purchase order basis. In order to obtain regulatory approval for Fovista or Zimura, these third-party manufacturers will be required to consistently produce the API used in Fovista or Zimura in commercial quantities and of specified quality or execute fill-finish services on a repeated basis and document their ability to do so. This is referred to as process validation. If the third-party manufacturers are unable to satisfy this requirement, our business will be materially and adversely affected.

Our third-party manufacturer of API for Fovista and Zimura has made only a limited number of batches of Fovista and Zimura to date. Fovista API has been manufactured at commercial scale only on a limited basis, and Zimura API has never been manufactured at commercial scale. Although we have produced commercial scale batches of Fovista API, these batches were not produced using PEG reagent produced at a commercial scale, which we are in the process of validating. The regulatory requirement to complete process validation has not yet been satisfied for either product candidate. These manufacturing processes and the facilities of our third-party manufacturers, including our third-party API manufacturer and our third-party manufacturer providing fill-finish services, are subject to inspection and approval by the FDA before we can commence the commercial manufacture and sale of Fovista or Zimura, and thereafter on an ongoing basis. Our third-party API manufacturer has undergone only one Pre-Approval Inspection by the FDA. Our third-party manufacturer providing fill-finish services is subject to FDA inspection from time to time. 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 regulatory actions such as the issuance of FDA Form 483 notices of observations, warning letters or injunctions or the loss of operating licenses. Additionally, on October 22, 2014, the FDA issued its final guidance on the circumstances that constitute delaying, denying, limiting or refusing a drug inspection pursuant to Section 707 of the Food and Drug Administration Safety and Innovation Act of 2012. If any of our third-party manufacturers are found to have delayed, denied, limited or refused a drug inspection, our API or drug product could be deemed adulterated. Based on the severity of the regulatory action, our clinical or commercial supply of API or our fill-finish services could be interrupted or limited, which could have a material adverse effect on our business.

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 other countries, do not apply to oligonucleotides, including aptamers. As a result, there is no established generally accepted manufacturing or quality standard for the production of Fovista or Zimura. Even though the FDA has reviewed the quality standards for Fovista to be used in our Phase 3 clinical program, the FDA has the ability to modify these standards at any time and foreign regulatory agencies may impose differing quality standards and quality control on the manufacture of Fovista. The lack of uniform manufacturing and quality standards among regulatory agencies may delay regulatory approval of Fovista or Zimura.

In addition, in order to manufacture and supply Fovista or any of our other product candidates on a commercial scale, we will need to bolster our quality control and quality assurance capabilities, including by augmenting our manufacturing processes and adding personnel. As we or any manufacturer we engage scales up manufacturing of any approved product, we may encounter unexpected issues relating to the manufacturing processes or the quality, purity and stability of the product, and we may be required to refine or alter our manufacturing processes to address these issues. 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 our products, we could potentially face commercial drug supply shortages. If we experience significant delays or other obstacles in producing any approved product for commercial scale, our ability to market and sell any approved products may be adversely affected and our business could suffer.

Even if Fovista, Zimura or any other product candidate that we may develop 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 products and product candidates may be smaller than we estimate.

If any of our product candidates receive marketing approval, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. For example, current treatments for wet AMD, including Lucentis, Eylea and low cost, off-label use of Avastin, are well established in the medical community, and doctors may continue to rely upon these treatments without Fovista. If Fovista does not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of Fovista, Zimura or any other product candidate that 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, such as a Fovista label requiring a waiting period after the intravitreal injection of the anti-VEGF drug and prior to the intravitreal injection of Fovista;
- any restrictions in the label on the use of our products by a subgroup of patients, such as by excluding from the Fovista label patients who would have been excluded from our clinical trials, for example, based on visual acuity measurements, comorbidities, such as patients with diabetes mellitus, previous treatment status or lesion characteristics, such as patients with pure occult subtype wet AMD;
- restrictions in the label on the use of Fovista with a particular anti-VEGF drug;
- any changes in the dosing regimen of, or the means of administering or delivering, an anti-VEGF drug with which Fovista will be used;

- our and our ex-U.S. commercialization partner's ability to offer our products at competitive prices, particularly in light of the additional cost of Fovista together with an anti-VEGF drug;
- availability of third-party coverage and adequate reimbursement, particularly by Medicare given our target market for persons over age 55;
- increasing reimbursement pressures on retinal specialists 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;
- prevalence and severity of any side effects;
- whether competing products or other alternatives are more convenient or easier to administer, including whether co-formulated alternatives, alternatives that can be co-administered in a single syringe or alternatives that offer a less invasive method of administration than intravitreal injection come to market; and
- the strength of our marketing and distribution support and that of Novartis, our partner for Fovista commercialization outside of the United States.

In addition, the potential market opportunity for Fovista is difficult to estimate precisely. If Fovista receives marketing approval for the treatment of wet AMD, it will be approved solely for use in combination with an anti-VEGF drug. The market opportunity for Fovista will be dependent upon the continued use of anti-VEGF drugs in the treatment of wet AMD and the market share of such anti-VEGF drugs for which Fovista is approved as a combination therapy. In addition, because physicians, patients and third-party payors may be sensitive to the addition of the cost of Fovista to the cost of treatment with anti-VEGF drugs, we may experience downward pressure on the price we can charge for Fovista.

Our Phase 3 clinical program enrolls patients based on a specific definition of the presence of neovascularization with certain characteristics, including the presence of subretinal hyper-reflective material, or SHRM, using the commonly employed modality of spectral domain optical coherence tomography, or SD-OCT. We are not aware of any third-party clinical trials that have used this criteria to assess patient inclusion and as such do not know the proportion of total cases of subfoveal neovascularization that are represented using this specific definition of SD-OCT inclusion criteria. However, a recent third-party retrospective analysis based on a treatment naïve wet AMD population with relatively broad entry criteria in a National Eye Institute sponsored study showed that approximately 77% of patients in that study demonstrated the presence of SHRM. We cannot easily assess the impact on the potential market opportunity for Fovista should Fovista receive marketing approval and the approved label exclude patients based on this criteria.

Our Phase 3 clinical program provides for a 30-minute delay in the injection of Fovista after the anti-VEGF drug to minimize the risk in our clinical trials of an unacceptable increase in intraocular pressure as a result of the amount of the two agents injected. If Fovista receives marketing approval for the treatment of wet AMD and the approved label requires such a waiting period, the potential market opportunity for Fovista may be limited to the extent that physicians and patients find such a waiting period unacceptable.

The current standard of care for wet AMD is monotherapy administration of anti-VEGF drugs, principally Avastin, Lucentis and Eylea, which are well established therapies and are widely accepted by physicians, patients and third-party payors. When used for the treatment of wet AMD, Avastin is

inexpensive. Physicians, patients and third-party payors may not accept the addition of Fovista to their current treatment regimens for a variety of potential reasons, including:

- if they do not wish to incur the additional cost of Fovista;
- if they perceive an additional injection to administer Fovista as undesirable and we and Novartis are unsuccessful in developing and marketing a co-formulated product;
- if they perceive the addition of Fovista to be of limited benefit to patients; or
- if they wish to treat with anti-VEGF drugs as monotherapy first and add Fovista only if and when resistance to continued anti-VEGF monotherapy limits further enhancement of visual outcome.

Our estimates of the potential market opportunity for each of Fovista and Zimura include several key assumptions based on our industry knowledge, industry publications, market response to marketed AMD drugs, third-party research reports and other surveys. While we believe that our internal assumptions are reasonable, no independent source has verified such assumptions. If any of these assumptions proves to be inaccurate, then the actual market for Fovista or Zimura could be smaller than our estimates of our potential market opportunity. If the actual market for Fovista or Zimura is smaller than we expect, our product revenue may be limited and it may be more difficult for us to achieve or maintain profitability.

We face substantial competition, which may result in others discovering, 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 Fovista and Zimura from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of product candidates for the treatment of wet AMD or other disease indications for which we may develop Fovista. Although there are currently no therapies approved by the FDA or the EMA for the treatment of dry AMD, there are also a number of pharmaceutical and biotechnology companies that are currently pursuing the development of products for this indication. 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 other products or product candidates that we may seek to develop or commercialize in the future for the treatment of wet AMD, dry AMD or other diseases.

There are a number of products in preclinical research and clinical development by third parties to treat wet AMD. We expect that product candidates currently in clinical or preclinical development that directly or indirectly inhibit PDGF, the molecule that Fovista inhibits, or that inhibit the function of other molecules and which could obviate the use of an anti-PDGF agent such as Fovista may represent significant competition if approved. These product candidates may provide better efficacy, a safety, profile and/or convenience and other benefits that are not provided by our product candidates or currently marketed therapies. Based on publicly available information, we have identified, among others, the following ophthalmic product candidates in clinical and preclinical development that, like Fovista, are based on PDGF inhibition:

- Regeneron Pharmaceuticals and Bayer HealthCare have an anti-PDGF product candidate that is being co-formulated with Eylea for administration in a single intravitreal injection that entered

clinical development in February 2014 and entered Phase 2 clinical trials in the second quarter of 2015.

- Ohr Pharmaceutical is developing an eye drop formulation of squalamine for wet AMD which has completed a Phase 2 clinical study and has announced its intention to begin a Phase 3 clinical study.
- Santen has a dual inhibitor of VEGF and PDGF in Phase 1/2a clinical development.
- Tyrogenex has an orally-administered dual inhibitor of VEGF and PDGF that has completed a Phase 1 trial and commenced a Phase 2 study in the first quarter of 2015.
- Allergan has an anti-PDGF, anti-VEGF DARPin product candidate in preclinical development that is being co-formulated for administration in a single intravitreal injection.
- Neurotech has a PDGF antagonist that is in preclinical development that is designed as an encapsulated cell technology implant, potentially delivered in combination with an anti-VEGF drug.
- Somalogic has an anti-PDGF product candidate in preclinical development.

Because there are a variety of means to block the activity and signaling of PDGF, our patents and other proprietary protections for Fovista may not prevent development or commercialization of product candidates that are different from Fovista.

Moreover, several companies, including Novartis, Allergan, Neurotech, Genentech, Regeneron, Ophthea, Quark Pharmaceuticals, PanOptica, Inc., and others, have treatments targeting other molecular targets in various phases of clinical development for the treatment of wet AMD. RegenexBio and other companies are investigating potential gene therapy treatments for the treatment of wet AMD. Additionally, the London Project to Cure Blindness, which is a partnership involving the University College London and Pfizer, recently announced a successful pilot procedure for the transplant of retinal pigment epithelium cells derived from stem cells for the treatment of wet AMD and the commencement of a broader clinical trial.

In addition, other companies are undertaking efforts to develop technologies to allow for a less frequent dosing schedule for anti-VEGF drugs that are currently in use. If such technologies are successfully developed and approved for use, we may need to conduct additional clinical trials of Fovista using a less frequent dosing schedule than the dosing schedule we are currently using in our ongoing Phase 3 clinical program. Any such trials may not be successful.

There are a number of products in preclinical research and clinical development by third parties to treat 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 inflammation suppression, such as complement system inhibitors and corticosteroids, visual cycle modulators, antioxidants and neuroprotectants, cell and gene therapies and vascular enhancers. Based upon publicly available information, we have identified, among others, the following ophthalmic product candidates in clinical development that, like Zimura, are based on complement system inhibition:

- Genentech has a humanized Fab fragment administered by intravitreal injection that targets complement factor D, for which it completed a Phase 2 clinical trial and commenced Phase 3 trials.
- Novartis and MorphoSys have a fully human antibody targeting complement factor C5, which is in Phase 2 clinical development and for which data was recently presented.
- Apellis has a product candidate administered by intravitreal injection that inhibits complement factor C3, which is in Phase 2 clinical development.

- Alexion Pharmaceuticals has an intravenously administered product candidate targeting complement factor C5 approved for unrelated conditions, which completed a Phase 2 clinical trial for dry AMD in 2014.

Moreover, we have identified, among others, the following additional ophthalmic product candidates that are in the later stages of clinical development for the treatment of dry AMD:

- Alimera Sciences has a corticosteroid intravitreal implant, Iluvien, which was recently approved for diabetic macular edema and which is being tested as a possible treatment for dry AMD.
- Acucela has an orally bioavailable selective visual cycle modulator, which is in a Phase 2b/3 clinical trial.
- Colby Pharmaceuticals has an ocular esterase cleavable prodrug of tempol hydroxylamine, which is in a Phase 2 clinical trial.
- Allergan has an a2-adrenergic receptor agonist, which has completed a Phase 2 clinical trial.
- Vision Medicines has a humanized monoclonal antibody that binds amyloid-b (Ab), which is in a Phase 2 clinical trial.
- GlaxoSmithKline has an anti-amyloid B antibody, which is in a Phase 2 clinical trial.
- MacuClear has a topical systemic antihypertensive agent administered as an eye drop, which is in a Phase 2/3 clinical trial.

Several additional companies, including Ocata Therapeutics, CHA Biotech, Cell Cure Neurosciences and Catalyst Biosciences, have announced dry AMD programs.

Our commercial opportunity could 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 Fovista, Zimura or other products or product candidates that we may develop. The commercial opportunity for Fovista also could be reduced or eliminated if our competitors develop and commercialize products that reduce or eliminate the use of anti-VEGF drugs for the treatment of patients with wet AMD. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the relevant market.

In addition, 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. We expect that if Fovista is approved, the cost of treatment of wet AMD with a combination of Fovista with an anti-VEGF drug will be significantly higher than the cost of treatment of wet AMD with Lucentis, Eylea or particularly Avastin monotherapy. Insurers and other third-party payors may encourage the use of anti-VEGF drugs as monotherapy and discourage the use of Fovista in combination with these drugs. This could limit sales of Fovista.

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 patient enrollment for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our clinical development programs.

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 Fovista, Zimura or any other product candidate that we develop if and when Fovista, Zimura or any other product candidate is approved.

As a company, we have no experience in the sale, marketing or distribution of pharmaceutical products. We currently do not have any sales or distribution infrastructure and have only a limited number of marketing personnel. 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. If Fovista receives marketing approval, we plan to commercialize it in the United States with our own specialty sales force targeting retinal specialists. Pursuant to the Novartis Agreement, we have granted to Novartis the exclusive right to commercialize Fovista outside of the United States in consideration for royalties on any such sales.

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

If we enter into arrangements with third parties to perform sales, marketing and distribution services, our product 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 establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

If we do not maintain a productive collaborative relationship with Novartis, to whom we have granted exclusive commercialization rights for Fovista outside of the United States, or if Novartis is unable to meet its contractual obligations, we may be forced to focus our efforts internally to commercialize Fovista outside of the United States without the assistance of a commercialization partner or seek another commercialization partner, either of which would result in us incurring greater expenses and could cause a delay in market penetration while we expand our commercial operations or seek an alternative commercialization partner. Such costs may exceed the increased revenues we would receive from direct Fovista sales outside of the United States, at least in the near term. We would also be forced to declare a breach of the Novartis Agreement and seek a termination of the agreement

which could result in an extended and uncertain dispute with Novartis, including arbitration or litigation, any of which will be costly.

Even if we are able to commercialize Fovista, Zimura or any other product candidate that we may develop, the product may become subject to unfavorable pricing regulations, 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. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. 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 even after initial approval is granted. 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, and 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.

Our ability and the ability of any commercialization partner, including Novartis, our ex-U.S. commercialization partner for Fovista, to commercialize Fovista, Zimura or any other 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 administration 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. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that coverage and reimbursement will be available for Fovista, Zimura or any other product that we commercialize or any commercialization partner commercializes on our behalf, and, even if these are available, the level of reimbursement may not be satisfactory.

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 and because, in the case of Fovista, our drug will be administered in combination with other drugs that may carry high prices. In addition, physicians, patients and third-party payors may be sensitive to the addition of the cost of Fovista to the cost of treatment with anti-VEGF drugs. 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, including in the case of Fovista, relative to monotherapy with anti-VEGF drugs. If coverage and adequate reimbursement are not available or reimbursement is available only to limited levels, we may not be able to successfully commercialize Fovista, Zimura or any other 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. Moreover, 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. 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. 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 ability to raise capital needed to commercialize products and our overall financial condition.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

The pricing of prescription pharmaceuticals is subject to governmental control outside of the United States. 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 a commercialization partner may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

Our strategy of obtaining rights to complementary products, product candidates or technologies for the treatment of a range of ophthalmic diseases through in-licenses and acquisitions may not be successful.

We plan to expand our product pipeline through opportunistically in-licensing or acquiring the rights to complementary products, product candidates or technologies, including drug delivery technologies, for the treatment of ophthalmic diseases. Because we expect generally that we will not engage directly in early stage research and drug discovery, the future growth of our business will depend significantly on our ability to in-license or acquire the rights to approved products, additional product candidates or technologies. However, we may be unable to in-license or acquire the rights to any such products, product candidates or technologies from third parties. The in-licensing and acquisition of pharmaceutical products is an area characterized by intense competition, and a number of more established companies are also pursuing strategies to in-license or acquire products, product candidates or technologies that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

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 complementary product, product candidate or technology on terms that would allow us to make an appropriate return on our investment. Furthermore, we may be unable to identify suitable products, product candidates or technologies within our area of focus. If we are unable to successfully obtain rights to suitable products, product candidates or technologies, our business, financial condition and prospects for growth could suffer.

Product liability lawsuits against us or any 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 Fovista, Zimura and any other product candidate that we develop in human clinical trials and we and any commercialization

partner will face an even greater risk if we commercially sell any products that we develop or in-license. Because our Phase 3 clinical program for Fovista involves the administration of Fovista in combination with anti-VEGF drugs, including off-label use by intravitreal injection of Avastin provided by us, we also face an inherent risk of product liability exposure related to the testing of such anti-VEGF drugs. If we become subject to or otherwise cannot successfully defend ourselves against claims that our product candidates, anti-VEGF drugs administered in combination with 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;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- 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 Fovista, Zimura or any other product candidate that receives marketing approval. 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. In addition, if Novartis or one of our other future commercialization or collaboration partners 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 will depend heavily on our commercialization arrangement with Novartis for the success of Fovista outside of the United States. If Novartis terminates our agreement or is unable to meet its contractual obligations, it could negatively impact our revenues and harm our business until appropriate measures have been taken.

In May 2014, we entered into the Novartis Agreement pursuant to which we granted exclusive rights to Novartis to commercialize Fovista outside of the United States. The agreement continues until the date on which we are no longer entitled to receive a royalty on Fovista or any co-formulated product containing Fovista developed under the agreement. The agreement is subject to early termination in the event of certain customary defaults, such as material breach of the agreement and bankruptcy. In addition, the agreement is subject to early termination by either us or Novartis if the other party challenges or assists a third party in challenging the validity or enforceability of certain patent rights controlled by the terminating party, or if the parties are prevented in any manner that materially adversely affects the progression of the development or commercialization of licensed products for a specified period as a result of specified governmental actions. Novartis may also terminate the agreement at any time without cause, or within a specified period after a change in control of us, as defined in the agreement, or for specified safety reasons, effective at the end of a specified period following Novartis's written notice to us of Novartis's election to terminate the agreement. We may also terminate the agreement if Novartis determines to seek marketing approval of

an alternative anti-PDGF product outside the United States. If we do not maintain a productive collaborative relationship with Novartis or if Novartis is unable to meet its contractual obligations or if there is an early termination of the agreement as described above, we will be forced to either establish a commercial infrastructure outside of the United States so that we could undertake the commercialization efforts which had been theretofore undertaken by Novartis or we will need to seek an alternative partner. The establishment of a commercial infrastructure and assumption by us of commercialization activities outside of the United States would require substantial resources, financial and otherwise, and could result in us incurring greater expenses than the increase in revenues from our direct sales of Fovista. It could also cause a delay in market penetration while we expand our commercial operations. Seeking and obtaining an alternative commercial partner outside the United States could also adversely impact sales of Fovista and market penetration outside of the United States.

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

If either of Fovista or Zimura receives marketing approval, we plan to commercialize such product candidate in the United States with our own specialty sales force targeting retinal specialists. In May 2014, we entered into the Novartis Agreement pursuant to which we granted Novartis the exclusive right to commercialize Fovista outside of the United States. We expect to utilize a variety of types of collaboration, distribution and other marketing arrangements with third parties to commercialize Zimura 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 do enter into any additional arrangements with third parties in the future, we will 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 and our arrangement with Novartis for Fovista will depend on our collaborators' and Novartis's abilities and efforts to successfully perform the functions assigned to them in these arrangements. Collaborations involving our product candidates, including our collaboration with Novartis, could pose numerous risks to us, including the following:

- 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 deemphasize 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;

- disagreements or disputes with collaborators, including disagreements or disputes over proprietary rights, contract interpretation or the preferred course of development, 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 be expensive;

- collaborators with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;

- 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; and

- collaborations may be terminated for 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, including Novartis, 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, including Novartis, terminates its agreement with us, we could find it more difficult to attract new collaborators and the perception of our company in the business and financial communities could be adversely affected.

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

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

The development and potential commercialization of Zimura and other product candidates that we may develop will require substantial additional cash to fund expenses. For some of our product candidates, we may decide to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or 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, 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. We may also be restricted under future license agreements from entering into agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have

been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

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

We rely upon third parties in conducting our clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials.

We have relied on third-party clinical research organizations, or CROs, in conducting our completed clinical trials of Fovista and Zimura. We expect to continue to rely upon third parties, such as CROs, clinical data management organizations, medical institutions (including reading centers) and clinical investigators, in conducting our clinical trials for Fovista and Zimura, including the clinical trials in our Phase 3 clinical program for Fovista, the Fovista Expansion Studies and the clinical trials in our Zimura development program, and expect to rely upon these third parties to conduct clinical trials of any other product candidate that we may develop. 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.

Our reliance on these third parties for 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 requires us to comply with standards, commonly referred to as Good Clinical Practices, or 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 a government-sponsored database within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors.

We also rely upon other third parties to store, package and distribute drug supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

We contract with third parties for the manufacture of both Fovista and Zimura for clinical trials and expect to continue to do so in connection with the commercialization of Fovista and for clinical trials and commercialization of any other product candidates that we develop or may develop. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not currently own or operate manufacturing facilities for the production of clinical or commercial quantities of Fovista or Zimura and have limited personnel with manufacturing experience. We currently rely upon and expect to continue to rely upon third-party contract manufacturers to manufacture clinical and commercial supplies of Fovista and Zimura, preclinical and clinical supplies of other product candidates we may develop and commercial supplies of products if and when approved for marketing by applicable regulatory authorities. Our current and anticipated future dependence upon others for the manufacture of Fovista, Zimura and any other product candidate or product that we develop may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis. In addition, any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval. Under the Novartis Agreement, we are responsible for supplying to Novartis Fovista API for clinical and commercial supply.

We currently rely exclusively upon a single third-party manufacturer to provide supplies of both Fovista API and Zimura API. We also engage a single third-party manufacturer to provide fill-finish services for clinical supplies of both Fovista and Zimura. Other than our agreements with Agilent Technologies with respect to our clinical and commercial supply of Fovista API, we obtain these supplies and services from each of these manufacturers on a purchase order basis. We do not currently have any contractual commitments for supply of Zimura API or for fill-finish services for either Fovista or Zimura. We also do not currently have arrangements in place for redundant supply or a second source for API for Fovista or Zimura or for fill-finish services. The prices at which we are able to obtain supplies of Fovista API or Zimura API and fill-finish services may vary substantially over time and adversely affect our financial results. Furthermore, we currently rely upon sole-source suppliers of certain raw materials and other specialized components of production used in the manufacture and fill-finish of each of Fovista and Zimura.

We currently rely exclusively upon Nektar to supply us with a proprietary polyethylene glycol, or PEG, reagent for Fovista under a manufacturing and supply agreement. PEG reagent is a chemical we use to modify the chemically synthesized aptamer in Fovista. The PEG reagent made by Nektar is proprietary to Nektar.

We obtain a different proprietary PEG reagent used to modify the chemically synthesized aptamer in Zimura from a different supplier on a purchase order basis. We do not currently have any contractual commitments for supply of the PEG reagent we use for Zimura.

If our third-party manufacturers for Fovista API, Zimura API or the PEG reagent we use for Fovista or Zimura fail to fulfill our purchase orders, or if any of these manufacturers should become unavailable to us for any reason, including as a result of capacity constraints, financial difficulties or insolvency, we believe that there are a limited number of potential replacement manufacturers, and we likely would incur added costs and delays in identifying or qualifying such replacements. We could also incur additional costs and delays in identifying or qualifying a replacement manufacturer for fill-finish services for Fovista or Zimura if our existing third-party fill-finish provider should become unavailable for any reason. We may be unable to establish agreements with such replacement manufacturers or fill-finish providers or to do so on acceptable terms.

Under the supply agreement with Nektar, we must purchase our entire requirements for PEG reagent for Fovista exclusively from Nektar at agreed prices based on volume. Similarly, under our

clinical and commercial supply agreements with Agilent, we must purchase a specific percentage of our requirements for Fovista API from Agilent at agreed prices based on the volume of Fovista API ordered. In the event either of these suppliers breaches its supply obligations as specified in the applicable agreement, such supplier has agreed to enable a third-party manufacturer, if one is available, to supply us with PEG reagent and Fovista API, as applicable. In the case of Nektar, this alternative supply would last only until Nektar demonstrates that Nektar has the ability to supply all of our requirements for PEG reagent. The agreements of Nektar and Agilent to enable a third-party manufacturer may be difficult to enforce in the context of a breach by either of these suppliers of their supply obligations. In particular with respect to the potential replacement of Nektar, we may not be able to reach an agreement with any third-party manufacturer to take on the supply of PEG reagent under such circumstances because, to our knowledge, no third party currently manufactures the PEG reagent we currently use in making the Fovista API for use in any other FDA approved drug. Furthermore, with respect to the potential replacement of Nektar, the replacement manufacturer's right to supply us with PEG reagent would be subject to termination at any time once Nektar demonstrates that Nektar has the ability to supply all of our requirements for PEG reagent, which may limit the interest of potential third-party manufacturers in undertaking such an engagement. In addition, in the case of the potential replacement of either Nektar or Agilent, the process of transferring any necessary technology or process to a third-party manufacturer would entail significant delay in or disruption to the supply of PEG reagent or Fovista API, as applicable, and, as a result, a significant delay in or disruption to the manufacture of Fovista. Furthermore, the FDA or other regulatory authorities might require additional studies to demonstrate, in the case of a replacement of Nektar, equivalence between the Fovista API made using the Nektar PEG reagent and the Fovista API made using any replacement PEG reagent we propose to use or between the Nektar PEG reagent itself and any replacement PEG reagent we propose to use to make Fovista, or, in the case of a replacement of Agilent, equivalence between the Fovista API made by Agilent and the Fovista API made by the alternative manufacturer. We ultimately may be unable to demonstrate such equivalence.

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

- Fovista, Zimura and any other product that we may develop may compete with other product candidates and products for access to a limited number of suitable manufacturing facilities that operate under current good manufacturing practices, or cGMP, regulations;
- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible breach of our supply obligations to Novartis;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and
- the possible termination or nonrenewal 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 depend on licenses and sublicenses for development and commercialization rights to our products, product candidates and technologies. Termination of these rights or the failure by us or our licensees, including our commercialization or collaboration partners to comply with obligations under these or other agreements under which we obtain such rights or have obtained funding could materially harm our business and prevent us from developing or commercializing our products and product candidates.

We are party to various agreements, including an divestiture agreement with OSI Pharmaceuticals and license agreements with Archemix and Nektar that we depend on for rights to Fovista, Zimura and other product candidates and technology. These agreements impose, and we may enter into additional licensing arrangements or other agreements with third parties that may impose, diligence, development and commercialization timelines, milestone payment, royalty, insurance and other obligations on us. Under our divestiture agreement with OSI Pharmaceuticals and our licensing agreement with Nektar, we are obligated to pay royalties on net product sales of Fovista or other product candidates or related technologies to the extent they are covered by the agreement. Under our license agreements with Archemix and Nektar, 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.

We also have diligence and development obligations under our divestiture agreement with OSI Pharmaceuticals and our license agreements with Archemix and Nektar. Generally, these diligence obligations require us to use commercially reasonable efforts to develop, seek regulatory approval for and commercialize our products in the United States, the European Union and, in some cases, certain other specified countries. Although the Novartis Agreement provides that Novartis will be responsible for performing certain of these obligations with respect to specified countries for Fovista, we still remain liable under our agreements with OSI Pharmaceuticals, Archemix and Nektar. If we fail to comply with our obligations under current or future acquisition, license and funding agreements, or otherwise breach an acquisition, license or funding 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. Such a failure to comply or breach by us under any of these agreements could also lead to a breach by us of the Novartis Agreement. 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 Fovista, Zimura and other important intellectual property or technology. Any of the foregoing could prevent us from commercializing Fovista, Zimura or other product candidates we may develop, which could have a material adverse effect on our operating results and overall financial condition.

In addition to the generally applicable diligence obligations set forth above, we have specific obligations with respect to the licensing agreements described below:

- Under the terms of the agreement with OSI Pharmaceuticals under which we acquired certain rights to develop and commercialize Fovista, if we or our commercialization or collaborative partners fail to meet certain obligations, OSI Pharmaceuticals may terminate the agreement as to such countries with respect to which such failure has occurred, and upon such termination we will be obligated to grant, assign and transfer to OSI Pharmaceuticals specified rights and licenses related to our anti-PDGF aptamer technology and other related assets, and if we are manufacturing such anti-PDGF products at the time of such termination, may be obligated to

provide transitional supply to OSI Pharmaceuticals of covered anti-PDGF products, for such countries.

- Under the terms of the amended license, manufacturing and supply agreement with Nektar, pursuant to which we obtained, among other licenses, an exclusive, worldwide license to make, develop, use, import, offer for sale and sell certain products that incorporate a specified PEG reagent linked with the active ingredient in Fovista, if we fail to use commercially reasonable efforts to achieve the first commercial sale of Fovista in the United States by June 30, 2018, we and Nektar may agree in good faith to extend such date in specified circumstances. If such date is not extended, Nektar may either terminate our license or convert our license for such country to a non-exclusive license. In addition, if we fail to use commercially reasonable efforts to develop Fovista and file and seek approval of new drug applications on a schedule permitting us to make first commercial sales of Fovista in specified countries by June 30, 2019, do not make such first commercial sales of Fovista by such date, or thereafter fail to use commercially reasonable efforts to continue to commercialize and market Fovista in such countries, we will be in material breach of the agreement and Nektar will have the right to terminate the agreement.

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. For example, the licenses from Archemix include sublicenses to us of rights to specified technology, which we refer to as the SELEX technology, licensed by University License Equity Holdings, Inc. to Gilead Sciences, Inc., or Gilead, and sublicensed by Gilead to Archemix, as well as other technology owned by Gilead and licensed to Archemix. In addition, the licenses we have obtained from Nektar include sublicenses of certain rights. 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 Fovista, Zimura and other product candidates may be materially harmed and could also lead to a breach by us of the Novartis Agreement. 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.

Risks Related to Our Intellectual Property

The patent prosecution process is expensive and time-consuming, is highly uncertain and involves complex legal and factual questions. Recent 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 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 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, European patent law restricts the patentability of methods of treatment of the human body more than United States law does. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we 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, validity, term, 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. 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.

Recent 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. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation and switch the U.S. patent system from a "first-to-invent" system to a "first-to-file" system. Under a first-to-file system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. The USPTO recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first-to-file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

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. 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 license, develop or commercialize current or future product candidates.

If we are unable to obtain and maintain patent protection for our technology and products during the period of their commercialization, 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.

The last to expire of the U.S. patent rights covering the composition of matter of Fovista is expected to expire in early 2017. Such expiration date is prior to the date by which we expect Fovista to be commercialized in the United States if we obtain marketing approval. We own an issued U.S. patent covering methods of treating wet AMD with Fovista in combination with Avastin or Lucentis, which is expected to expire in 2024. The Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, permits a patent restoration term of up to five years as partial compensation for patent term effectively lost during product development and the FDA regulatory review process occurring after the issuance of a patent. We may be able to obtain a patent term extension for this U.S. patent, and we expect such extension to be for approximately three years. The European patent rights covering the composition of matter of Fovista are expected to expire in 2018. Such expiration date is shortly after the date by which we expect Fovista to be commercialized in Europe, and may even be prior to such date. We own a granted European patent covering a combination of Fovista and Lucentis or Avastin for use in a method for treating wet AMD. This European patent is expected to expire in 2024. Similar to the patent term restoration 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 or restoration 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. 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 restoration 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 will be shorter than we would otherwise expect, and our competitors may obtain approval of competing products following our patent expiration, and our revenue could be reduced, possibly materially.

In addition to the patents described above, we also have filed in the United States patent applications covering a method of treating wet AMD in patients with Fovista in combination with Eylea and in Europe and Japan patent applications covering a combination of Fovista and Eylea for use in a method for treating wet AMD. These patent applications are in the early stages of prosecution and may not result in patents being issued which protect the use of Fovista in combination with Eylea for treating wet AMD or effectively prevent others from commercializing competitive technologies and products. If a patent is granted following prosecution of any such application, the latest projected patent expiry, absent any patent term adjustment or extension or patent restoration, would be in 2030.

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 API as Fovista, Zimura or any other product candidates we may develop would limit our ability to generate revenue from the sale of Fovista, Zimura or such other product candidates, if approved for commercial sale. In addition, European patent law generally makes the issuance and enforcement of patents that cover methods of treatment of the human body difficult. Further, once the composition-of-matter patents relating to Fovista, Zimura or any other product candidate in a particular jurisdiction, if any, expire, competitors will be able to make, offer and sell products containing the same API as Fovista, Zimura or such other product candidate in that jurisdiction so long as these competitors do not infringe any other of our patents covering Fovista's or Zimura's composition of matter or method of use or manufacture, do not violate the terms of any marketing or data exclusivity that may be granted to us by regulatory authorities and 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 API as Fovista or Zimura in combination with any anti-VEGF drug, even if such use infringes any of our method-of-treatment patents.

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 under which we are licensed without infringing such patents. This might enable our competitors to develop during the lifetime of these patents drugs that compete with Fovista or Zimura, if approved.

The U.S. patent rights covering Zimura as a composition of matter are expected to expire in 2025. Such expiration date may be prior to the date by which we would be able to commercialize Zimura in the United States if we seek and obtain marketing approval. The U.S. patent rights covering methods of treating certain complement protein mediated disorders with Zimura are expected to expire in 2026. As a result, if we obtain marketing approval for Zimura, we may not be able to exclude competitors from commercializing products similar or identical to ours if such competitors do not use or promote our claimed methods of treatment or do use or promote our methods of treatment after our patents expire. Depending on potential delays in the regulatory review process for Zimura, we may be able to obtain a patent term extension for one of these patents in the United States, but we can provide no assurances that such an extension will be obtained.

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. We could also fail to take the required actions and pay the necessary governmental fees to maintain our patents.

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 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 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.

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. 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. 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 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 collaboration and commercialization 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. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. We or our collaboration and commercialization partners 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 also increase as our or their product candidates near commercialization. Third parties may assert infringement claims against us or our collaboration or commercialization partners 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 and uses. Thus, we do not know with certainty that Fovista, Zimura or any other product

candidate, or our intended commercialization thereof, does not and will not infringe or otherwise violate any third party's intellectual property.

If we are or one of our collaboration or commercialization partners 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 and marketing our or their products and technology or to continue using a trademark. However, we or our collaboration and commercialization partners 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 collaboration and commercialization partners and could require us or them to make substantial licensing and royalty payments. We or our collaboration and commercialization partners could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent or other intellectual property right. A finding of infringement could prevent us or our collaboration and commercialization partners from commercializing our or their 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 collaboration and commercialization partners 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 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 any 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 rights to Fovista from Eyetech, Archemix and Nektar and rights to Zimura from Archemix, we must rely upon these parties' practices, and those of their predecessors, with regard to the assignment of intellectual property therein. 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, which would have a material adverse effect on our business.

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 employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, 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 certain rights to Fovista from Eyetech, Archemix and Nektar, we must rely upon these parties' practices, and those of their predecessors, with regard to the protection of Fovista-related trade secrets before we acquired them. 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 be able to obtain adequate remedies for such breaches. 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. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

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 Fovista, Zimura or any other product candidate that we may develop, and our ability to generate revenue will be materially impaired.

Our product candidates, including Fovista and Zimura, and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, export and import, are subject to comprehensive regulation by the FDA and by the EMA and comparable regulatory agencies in other countries.

Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market Fovista, Zimura or any other product candidate 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 and Novartis to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authorities. The FDA or other regulatory authorities may determine that Fovista, Zimura or any other 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 FDA or other regulatory authority may limit the approval of Fovista to use with only specified anti-VEGF drugs rather than with all anti-VEGF drugs. Such limitation could limit sales of Fovista.

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. 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 preclinical, 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 such as Fovista and Zimura manufactured using novel 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 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 Fovista, Zimura or any other product candidate that we develop, the commercial prospects for such product candidate may be harmed and our ability to generate revenues will be materially impaired.

Failure to obtain marketing approval in foreign jurisdictions would prevent our product candidates from being marketed in such jurisdictions.

In order to market and sell Fovista, Zimura and any other product candidate that we may develop in the European Union and many other jurisdictions, we or our third-party commercialization partners, including Novartis, our ex-U.S. commercialization partner for Fovista, must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional preclinical or clinical testing. 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 approved for sale in that country. We or our third-party commercialization partners, including Novartis, our ex-U.S. commercialization partner for Fovista, may not obtain 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.

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.

In the United States, our lead product candidate, Fovista, received fast track designation and may be eligible for priority review status. If a drug is intended for the treatment of a serious or life-threatening disease or condition and the drug demonstrates the potential to address unmet medical needs for this disease or condition, the drug sponsor may apply for FDA fast track designation. If a drug offers major advances in treatment, the drug sponsor may apply for FDA priority review status. The FDA has broad discretion whether or not to grant fast track designation or priority review status, so even if we believe a particular product candidate is eligible for such designation or status the FDA could decide not to grant it. Even though Fovista has received fast track designation for the treatment of wet AMD and may be eligible for priority review status, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program.

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 will receive marketing approval

We may seek a breakthrough therapy designation for some of our product candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough therapies, interactions and communications between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA are also eligible for accelerated approval.

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 determine 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 assure 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 of decide that the time period for FDA review or approval will not be shortened.

Any product candidate, including Fovista and Zimura, 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 fail to comply with regulatory requirements or if we or our third-party commercialization partners experience unanticipated problems with our products, when and if any of them are approved.

Any product candidate, including Fovista and Zimura, 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 continual 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, 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 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 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 off-label use and if we do not market our products for their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the Federal Food, Drug, and Cosmetic Act 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;
- withdrawal of the products from the market;
- 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 involving patients using our products.

Non-compliance with European Union requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of products for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with the European Union's requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

Our and our commercialization partners' relationships with customers 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, physicians and third-party payors play a primary role in the recommendation and prescription of any product candidates, including Fovista, for which we obtain marketing approval. Our future arrangements with healthcare providers, physicians 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 $5,500 to $11,000 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 relating to healthcare matters;
- 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;

- the federal Physician Payments Sunshine Act requires applicable manufacturers of covered drugs to report payments and other transfers of value to physicians and teaching hospitals, with data collection beginning in August 2013; 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 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. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

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. We are developing and implementing a corporate compliance program designed to ensure that we will market and sell any future products that we successfully develop from our product candidates in compliance with all applicable laws and regulations, but we cannot guarantee that this program will protect us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or 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, 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 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.

Current and future legislation may increase the difficulty and cost for us and any collaborators to obtain marketing approval of and commercialize our product candidates and affect the prices we, or they, may obtain.

In the United States and some 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 Fovista, Zimura or any other product candidate that we may develop, restrict or regulate post-approval activities and affect our and any commercialization partner's ability to generate revenue from, sell profitably or commercialize any product candidates, including Fovista and Zimura,

for which we or they obtain marketing approval or products that we may develop or in-license. 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 a commercialization partner receives for any approved product.

For example, 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. Among the provisions of the ACA of potential importance to our business and our product candidates are the following:

- an annual, non-deductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- expansion of healthcare fraud and abuse laws, including the civil False Claims Act and the federal Anti-Kickback Statute, new government investigative powers and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- extension of manufacturers' Medicaid rebate liability to individuals enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements to report certain financial arrangements with physicians and teaching hospitals;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- a new Independent Payment Advisory Board, or IPAB, which has authority to recommend certain changes to the Medicare program to reduce expenditures by the program that could result in reduced payments for prescription drugs; and
- established the Center for Medicare and Medicaid Innovation within CMS to test innovative payment and service delivery models.

Other legislative changes have been proposed and adopted since the ACA was enacted. These changes include the Budget Control Act of 2011, which, among other things, led to aggregate reductions to Medicare payments to providers of up to 2% per fiscal year that started in 2013 and, due to subsequent legislation, will continue until 2025. In addition, the American Taxpayer Relief Act of 2012, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

These new laws may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices we may obtain for any of our product candidates for which regulatory approval is obtained.

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products. Moreover, legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the United States Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us and any collaborators to more stringent product labeling and post-marketing testing and other requirements.

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. Travel Act, 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 may have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. 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, 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 use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

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

In 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.

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 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 Employee Matters and Managing Growth and Our Operations

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

We are highly dependent on David R. Guyer, M.D., our Chief Executive Officer, and Samir C. Patel, M.D., our President, as well as the other principal members of our management, scientific and clinical teams. Although we have entered into letter agreements with our executive officers, each of them may terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other employees.

Recruiting and retaining qualified scientific, clinical, manufacturing, quality assurance, quality control and sales and marketing personnel will also be critical to our success. The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain 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. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under

consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

We are rapidly expanding our development, regulatory and sales, marketing and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We are currently experiencing significant and rapid growth in the number of our employees and the scope of our operations, particularly in the areas of clinical development, manufacturing development, quality control and quality assurance. During the 12-month period ending December 31, 2015, we hired close to half of our 112 employees. We also expect to continue to hire additional employees and expand the scope of our operations in the area of clinical development, manufacturing, quality control, quality assurance and, as we approach potential marketing approval for any of our product candidates, in the area of sales, marketing, market access and distribution. To manage our growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the inherent challenges associated with managing such rapid growth, we may not be able to manage effectively the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt 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 will 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 July 2015, our management concluded that we experienced a material weakness in internal controls related to technical accounting expertise over the accounting for deferred tax assets and income tax accounting in general during certain prior financial reporting periods. The deficiency in the application of our controls relating to technical accounting expertise over the accounting for deferred tax assets and income tax accounting in general resulted in the audit committee of our board of directors concluding that the relevant financial statements should not be relied upon, and our subsequent restatement of the relevant financial statements.

During the year ended December 31, 2015, we took the following steps to remediate the identified material weakness: we added staffing within our finance department and engaged a nationally recognized accounting firm, in each case, with technical expertise in the area of tax accounting and financial reporting. Our management has concluded that the identified material weakness in internal control over financial reporting was fully remediated as of December 31, 2015. Although we have remediated this deficiency in internal control over financial reporting, we cannot be certain that the remedial measures that we have taken will ensure that we maintain adequate controls over our financial reporting in the future and, accordingly, additional material weaknesses could occur or be identified. Any additional material weaknesses or combination of deficiencies could materially and adversely affect our ability to provide timely and accurate financial information, and the current and future deficiencies may impact investors' confidence in our internal controls and our company, which could cause our stock price to decline.

Risks Related to Information Technology

We rely significantly upon information technology and any failure, inadequacy, interruption or security lapse of that technology, including any cyber security incidents, could harm our ability to operate our business effectively.

In the ordinary course of our business, we and our third-party contractors maintain sensitive data on our and their respective networks, including our intellectual property and proprietary or confidential business information relating to our business and that of our clinical trial participants and business partners. In particular, we rely on contract research organizations and other third-parties to store and manage information from our clinical trials, including our Fovista Phase 3 clinical program. The secure maintenance of this sensitive information is critical to our business and reputation. Despite the implementation of security measures, our internal computer systems and those of our third-party contractors are vulnerable to damage from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. In particular, we believe that companies have been increasingly subject to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access. These threats can come from a variety of sources, ranging in sophistication from an individual hacker to a state-sponsored attack. Cyber threats may be generic, or they may be custom-crafted against our information systems or those of our third-party contractors. For information stored with our third-party contractors, we rely upon, and the integrity and confidentiality of such information is dependent upon, the risk mitigation efforts such third-party contractors have in place. In the recent past, cyber-attacks have become more prevalent and much harder to detect and defend against. Our and our third-party contractors' respective network and storage applications may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions. It is often difficult to anticipate or immediately detect such incidents and the damage caused by such incidents. System failures, data breaches and any unauthorized access or disclosure of our information or intellectual property could compromise our intellectual property and expose sensitive business information. System failures or accidents or security breaches could cause interruptions in our operations, and could result in a material disruption of our clinical and commercialization activities and business operations, in addition to possibly requiring substantial expenditures of resources to remedy. A data security breach could also lead to public exposure of personal information of our clinical trial patients and others. Cyber-attacks could cause us to incur significant remediation costs, result in product development delays, disrupt key business operations and divert attention of management and key information technology resources. The loss of clinical trial data could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate public disclosure of confidential or proprietary information, we could incur liability and our product research, development and commercialization efforts could be delayed.

Risks Related to Our Common Stock

Our executive officers, directors and principal stockholders maintain the ability to significantly influence all matters submitted to stockholders for approval.

As of December 31, 2015, our executive officers, directors and a small group of stockholders, in the aggregate, beneficially owned shares representing a significant percentage of our capital stock. As a result, if these stockholders were to choose to act together, they would be able to significantly influence all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, could significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire.

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. As of December 31, 2015, we had outstanding 35,196,567 shares of common stock. Of these shares, approximately 5,205,000 shares are restricted or control securities under Rule 144 under the Securities Act. Any of our remaining shares that are not restricted or control securities under Rule 144 under the Securities Act, including, for example, shares sold in our initial public offering or our follow-on public offering, may be resold in the public market without restriction unless purchased by our affiliates. Moreover, holders of an aggregate of approximately 4,455,000 shares of our common stock, have rights, subject to specified conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We have filed registration statements on Form S-8 registering all shares of common stock that we may issue under our equity compensation plans prior to awards becoming exercisable. As of December 31, 2015, we had outstanding stock options to purchase an aggregate of approximately 3,009,000 shares of our common stock, of which options to purchase approximately 955,000 shares were vested, as well as approximately 288,000 unvested RSUs. 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.

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 our current 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 the 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. In particular, we expect that there may be increased trading volumes and volatility in our stock price as we approach the announcement of the initial, top-line data from the two Fovista Phase 3 Lucentis Trials as part of our Fovista Phase 3 clinical program, which we expect to be available during the fourth quarter of 2016. 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:

- the success of products or technologies that compete with our product candidates;
- results of clinical trials of Fovista, Zimura and any other product candidate that we may develop and the timing of the receipt of such results;
- results of clinical trials of product candidates of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to in-license or acquire the rights to other products, product candidates and technologies for the treatment of ophthalmic diseases, the costs of commercializing any such products and the costs of development of any such product candidates or technologies;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other factors described in this "Risk Factors" section.

In the past, following periods of volatility in the market price of a company's securities, securities class-action litigation has often been instituted against that company. We also may face securities class-action litigation if we cannot obtain regulatory approvals for or if we otherwise fail to commercialize Fovista. Such 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.

We incur increased 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 that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of The NASDAQ Global 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 will make 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. We are also required to include with our annual report an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. 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. These efforts increased following management's conclusion that our accounting for net deferred tax assets in 2014 and early 2015 revealed a material weakness in internal control over financial reporting related to technical accounting expertise over the accounting for deferred tax assets and income tax accounting in general. Despite the fact that we remediated this material weakness and despite our ongoing efforts to maintain our internal controls, 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 and development of our business. In addition, the terms of any future debt agreements 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.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our properties consist of office space in New York, New York and Princeton, New Jersey. We lease approximately 22,400 square feet of office space in New York, New York under a lease that expires in 2020. In Princeton, New Jersey, we lease approximately 35,200 square feet of office space for our primary Princeton location under a sublease that expires in 2021, approximately 8,500 square feet of office space under a lease that expires in 2019 and approximately 1,800 square feet of office space under a lease that expires in September 2016. The 8,500 square feet of office space in Princeton, New Jersey is currently unoccupied and we are soliciting offers for a sublease.

Item 3. Legal Proceedings

We are not currently subject to any material legal proceedings.

Item 4. Mine Safety Disclosures

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuers Purchases of Equity Securities

Our common stock has been publicly traded on The NASDAQ Global Select Market under the symbol "OPHT" since September 25, 2013. Prior to that time, there was no public market for our common stock. The following table sets forth the high and low sale prices per share for our common stock on The NASDAQ Global Select Market for the periods indicated:

	Year ended December 31, 2015		Year ended December 31, 2014	
	High	Low	High	Low
Quarter ended March 31,	$ 58.29	$ 44.30	$ 42.54	$ 28.60
Quarter ended June 30,	$ 53.17	$ 44.55	$ 47.99	$ 30.13
Quarter ended September 30,	$ 72.51	$ 35.72	$ 42.88	$ 35.38
Quarter ended December 31,	$ 80.00	$ 37.45	$ 50.00	$ 36.46

Holders

As of January 31, 2016, there were approximately 72 holders of record of our common stock. This number does not include beneficial owners whose shares are held by nominees in street name.

Dividends

We have never declared or paid cash dividends on our common stock, and we do not expect to pay any cash dividends on our common stock in the foreseeable future.

Securities Authorized for Issuance under Equity Compensation Plans

The information required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

Recent Sales of Unregistered Securities

Other than as previously reported in our Quarterly Reports on Form 10-Q, there were no issuances of equity securities that were not registered under the Securities Act of 1933, as amended, or the Securities Act, during the period covered by this Annual Report on Form 10-K.

Purchase of Equity Securities

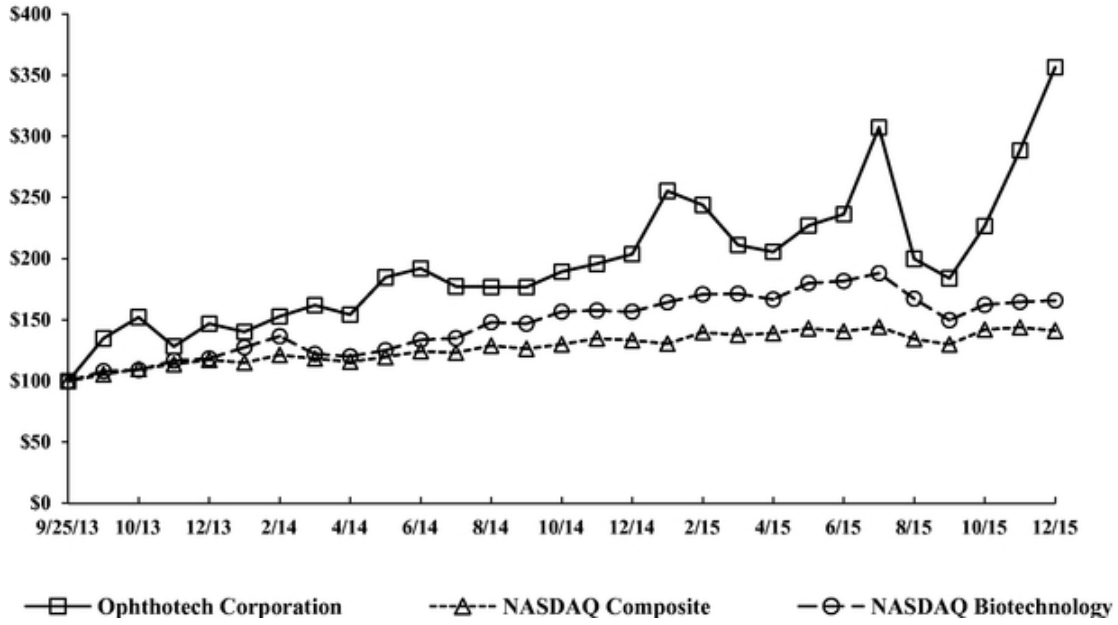
We did not purchase any of our registered equity securities during the period covered by this Annual Report on Form 10-K.

Stock Performance Graph

The following graph and chart compares the cumulative annual stockholder return on our common stock over the period commencing September 25, 2013 and ending on December 31, 2015, to that of the total return for the NASDAQ Composite Index and the NASDAQ Biotechnology Index, assuming an investment of $100 on August 31, 2013. In calculation cumulative total annual stockholder return, reinvestment of dividends, if any, is assumed. The indices are included for comparative purposes only. They do not necessarily reflect management's opinion that such indices are an appropriate measure of the relative performance of our common stock and are not intended to forecast or be indicative of future performance of our common stock. The following graph and related information shall not be deemed "soliciting material" or to be "filed: with the Securities and Exchange Commission, nor shall

such information be incorporated by reference in any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. We obtained information used on the graph from Research Data Group, Inc., a source we believe to be reliable.

COMPARISON OF 27 MONTH CUMULATIVE TOTAL RETURN*
Among Ophthotech Corporation, the NASDAQ Composite Index
and the NASDAQ Biotechnology Index



* $100 invested on September 25, 2013 in stock or August 31, 2013 in index, including reinvestment of dividends.

	9/25/2013	9/30/2013	10/31/2013	11/30/2013	12/31/2013	1/31/2014	2/28/2014	3/31/2014	4/30/2014
Ophthotech Corporation	$ 100.00	$ 135.05	$ 152.36	$ 128.41	$ 147.05	$ 140.41	$ 153.05	$ 162.16	$ 154.50
NASDAQ Composite	100.00	105.46	109.71	113.69	117.13	115.08	121.38	118.23	115.76
NASDAQ Biotechnology	100.00	108.52	109.20	116.91	118.51	128.17	137.33	122.37	120.44

	5/31/2014	6/30/2014	7/31/2014	8/31/2014	9/30/2014	10/31/2014	11/30/2014	12/31/2014
Ophthotech Corporation	$ 185.00	$ 192.32	$ 177.55	$ 177.09	$ 176.95	$ 189.64	$ 196.14	$ 203.95
NASDAQ Composite	119.41	124.11	122.91	128.85	126.29	129.84	134.63	133.19
NASDAQ Biotechnology	125.29	133.81	135.37	148.60	147.15	157.15	157.86	156.52

	1/31/2015	2/28/2015	3/31/2015	4/30/2015	5/31/2015	6/30/2015	7/31/2015	8/31/2015
Ophthotech Corporation	$ 255.68	$ 244.25	$ 211.50	$ 205.82	$ 227.36	$ 236.64	$ 307.68	$ 200.14
NASDAQ Composite	130.67	140.01	137.78	139.26	143.19	140.65	144.48	134.52
NASDAQ Biotechnology	164.61	171.11	171.61	166.92	180.23	181.93	188.39	167.50

	9/30/2015	10/31/2015	11/30/2015	12/31/2015
Ophthotech Corporation	$ 184.18	$ 226.95	$ 288.95	$ 356.95
NASDAQ Composite	130.11	142.19	144.03	141.32
NASDAQ Biotechnology	149.90	162.49	164.88	166.10

Use of Proceeds from Registered Securities

On September 30, 2013, we closed our initial public offering of 8,740,000 shares of our common stock, including 1,140,000 shares of our common stock pursuant to the exercise by the underwriters of an over-allotment option, at a public offering price of $22.00 per share for an aggregate offering price of approximately $192.3 million. The offer and sale of all of the shares in the offering were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-190643), which was declared effective by the SEC on September 24, 2013.

We received aggregate net proceeds from the offering of $175.6 million, after deducting underwriting discounts and commissions and other offering expenses payable by us.

As of December 31, 2015, we have used approximately $66.6 million of the net proceeds from the offering as follows:

- approximately $48.1 million to fund certain costs of our Phase 3 clinical program for Fovista administered in combination with anti-VEGF drugs for the treatment of wet AMD, which costs consists of external research and development expenses and clinical development related employee expenses; and

- approximately $18.5 million for working capital and other general corporate purposes.

Other than payments related to executive officer and director compensation, all as described in our public filings, we have not used any of the net proceeds from the offering to make payments, directly or indirectly, to any director or officer of ours, or any of their associates, to any person owning 10 percent or more of our common stock or to any affiliate of ours. We have invested the remaining net proceeds from the offering in a variety of capital preservation investments, including short-term and long-term, investment grade, interest bearing instruments and U.S. government securities. There has been no material change in our planned use of the net proceeds from the offering as described in our final prospectus filed with the SEC pursuant to Rule 424(b) under the Securities Act.

Item 6. Selected Financial Data

The following selected financial data should be read together with our financial statements and the related notes appearing elsewhere in this Annual Report on Form 10-K and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this Annual Report on Form 10-K. We have derived the statements of operations data for the years ended December 31, 2015, 2014, 2013, 2012 and 2011 and the balance sheet data as of December 31, 2015, 2014, 2013, 2012 and 2011 from our audited financial statements, which have been audited by Ernst & Young LLP, an independent registered accounting firm. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period, and our results for any interim period are not necessarily indicative of results to be expected for a full fiscal year.

	Years Ended December 31,				
	2015	2014	2013	2012	2011
	(in thousands, except per share data)				
Statements of Operations Data:					
Collaboration revenue	$ 51,505	$ 41,259	$ —	$ —	$ —
Operating expenses:					
Research and development	131,012	88,385	33,215	6,792	13,896
General and administrative	44,021	33,387	14,210	6,889	5,738
Total operating expenses	175,033	121,772	47,425	13,681	19,634
Loss from operations	(123,528)	(80,513)	(47,425)	(13,681)	(19,634)
Interest income (expense)	971	217	(1,454)	(507)	2
Loss on extinguishment of debt	—	—	(1,091)	—	—
Other income (loss)	53	—	(1,175)	(374)	(30)
Loss before income tax provision	(122,504)	(80,296)	(51,145)	(14,562)	(19,662)
Income tax (benefit) provision	(16,787)	36,476	—	—	(1,029)
Net loss	(105,717)	(116,772)	(51,145)	(14,562)	(18,633)
Add: accretion of preferred stock dividends	—	—	(5,891)	(7,063)	(6,838)
Net loss attributable to common stockholders	$ (105,717)	$ (116,772)	$ (57,036)	$ (21,625)	$ (25,471)
Net loss per common share:					
Basic and diluted	$ (3.06)	$ (3.51)	$ (6.34)	$ (14.89)	$ (18.27)
Weighted average common shares outstanding:					
Basic and diluted	34,580	33,258	9,003	1,452	1,394

	As of December 31,				
	2015	2014	2013	2012	2011
			(in thousands)		
Balance sheets data:					
Cash, cash equivalents and available for sale securities	$ 391,890	$ 463,560	$ 210,596	$ 4,304	$ 6,396
Total assets	$ 428,851	$ 479,786	$ 217,682	$ 4,879	$ 7,728
Deferred revenue	$ 213,066	$ 209,624	$ —	$ —	$ —
Royalty purchase liability	$ 125,000	$ 125,000	$ 41,667	$ —	$ —
Total liabilities	$ 368,904	$ 351,249	$ 47,962	$ 14,410	$ 3,338
Additional paid-in capital	$ 465,924	$ 428,390	$ 352,739	$ —	$ —
Accumulated deficit	$ (405,539)	$ (299,822)	$ (183,050)	$ (126,471)	$ (105,488)
Total stockholders' equity (deficit)	$ 59,947	$ 128,537	$ 169,720	$ (123,470)	$ (102,487)

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read together with our financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties and should be read together with the "Risk Factors" section of this Annual Report on Form 10-K for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a biopharmaceutical company specializing in the development of novel therapeutics to treat diseases of the back of the eye, with a focus on developing therapeutics for age-related macular degeneration, or AMD. Our most advanced product candidate is Fovista® (pegpleranib), which is in Phase 3 clinical development for use in combination with anti-VEGF drugs that represent the current standard of care for the treatment of wet AMD. We have completed one Phase 1 and one Phase 2b clinical trial of Fovista administered in combination with the anti-VEGF drug Lucentis® (ranibizumab), have completed patient enrollment for two Phase 3 clinical trials of Fovista administered in combination with Lucentis and expect to complete enrollment in a third Phase 3 clinical trial evaluating Fovista in combination with Eylea® (aflibercept) or Avastin® (bevacizumab) in 2016. We have completed enrollment in two additional Phase 2a clinical trials of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin), one of which is studying the potential of Fovista to reduce subretinal fibrosis in wet AMD patients and the other of which is investigating the optimized regimen of Fovista in combination with anti-VEGF drugs, as well as the potential of Fovista to reduce the treatment burden for wet AMD patients. We are also developing our product candidate Zimura® (avacincaptad pegol) as a monotherapy for the treatment of patients with geographic atrophy, or GA, a form of dry AMD, as well as in combination with anti-VEGF drugs for the treatment of wet AMD and for the treatment of polypoidal choroidal vasculopathy, a specific type of wet AMD, in patients who do not respond adequately to anti-VEGF monotherapy or for whom anti-VEGF monotherapy fails. We are also investigating the potential of an ophthalmic formulation for tivozanib, a small molecule VEGF tyrosine kinase inhibitor for which we have an option for a license.

Fovista Phase 3 Clinical Program

Our pivotal Phase 3 clinical program for Fovista consists of three separate Phase 3 clinical trials to evaluate the safety and efficacy of 1.5 mg of Fovista administered in combination with anti-VEGF drugs

for the treatment of wet AMD compared to anti-VEGF monotherapy. Two of these trials, referred to as the Fovista Phase 3 Lucentis Trials, are evaluating Fovista in combination with Lucentis compared to Lucentis monotherapy. The third trial, referred to as the Fovista Phase 3 Eylea/Avastin Trial, is evaluating Fovista in combination with Eylea or Avastin compared to Eylea or Avastin monotherapy. Our development strategy for Fovista is to be agnostic with respect to the choice of the anti-VEGF drug administered in combination with Fovista.

We completed patient enrollment in one of the Fovista Phase 3 Lucentis Trials in May 2015 and in the other Fovista Phase 3 Lucentis Trial in November 2015. The Fovista Phase 3 Lucentis Trials are investigating Fovista in combination with Lucentis compared to Lucentis monotherapy and are identical with respect to the trial design in the first year. Therefore, the databases from both of the Fovista Phase 3 Lucentis Trials will be locked and analyzed together, which will allow for the pooled analysis of certain relevant endpoints in accordance with the statistical analysis plan. We expect initial, top-line data from both of the Fovista Phase 3 Lucentis Trials to be available during the fourth quarter of 2016.

We are continuing to actively enroll patients in the Fovista Phase 3 Eylea/Avastin Trial and expect to complete enrollment in 2016, with initial, top-line data from this trial to be available in 2017 based on current enrollment estimates. This trial is investigating Fovista in combination with either Eylea or Avastin compared to Eylea or Avastin monotherapy. Our Phase 2b trial utilized Lucentis as the only anti-VEGF drug because Eylea was not yet approved and Avastin's non-inferiority status compared to Lucentis was not yet established at the time the Phase 2b clinical trial commenced. Therefore, in order to gain more experience with Fovista when administered in combination with Eylea or Avastin prior to starting a pivotal Phase 3 clinical trial, the Fovista Phase 3 Eylea/Avastin Trial started later (May 2014) than the Fovista Phase 3 Lucentis Trials (August 2013). This time period of approximately nine months allowed us to perform initial preclinical and clinical assessments and ensure compatibility of Eylea or Avastin when administered in combination with Fovista.

Our key objective and plan is to make Fovista commercially available to physicians to treat their patients with wet AMD as quickly as possible, subject to a favorable data outcome from the Phase 3 clinical program. We are continuing to explore various regulatory filing options. We plan to initially submit a New Drug Application, or NDA, to the U.S. Food and Drug Administration, or FDA, for Fovista in combination with Lucentis based upon data from the two Fovista Phase 3 Lucentis Trials and subsequently submit an amendment to the NDA with data from the Fovista Phase 3 Eylea/Avastin Trial, subject to a favorable data outcome from these trials. Alternatively, we may choose to file a supplemental NDA for Fovista in combination with Eylea or Avastin following FDA review of the NDA for Fovista in combination with Lucentis.

Fovista Expansion Studies

In addition to our ongoing Phase 3 clinical program for Fovista, we have initiated additional clinical trials to evaluate the potential additional benefits of Fovista administered in combination with anti-VEGF drugs in wet AMD patients. We refer to these trials collectively as the Fovista Expansion Studies. They include:

- *OPH1005 Fovista Anti-Fibrosis Study.* During the third quarter of 2014, we initiated an open-label Phase 2a clinical trial of 1.5 mg of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin), to study subretinal fibrosis in wet AMD patients. We completed enrollment in this trial in May 2015 with a total of 101 patients enrolled. Patients in this trial are followed over a 24-month period.

- *OPH1006 Fovista Treatment Burden Reduction Study.* During the fourth quarter of 2014, we initiated an open-label Phase 2a clinical trial of 1.5 mg of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin) to investigate the potential of Fovista to reduce the treatment burden for wet AMD patients. We completed enrollment in this trial in

October 2015 with a total of 64 patients enrolled. Patients in this trial followed over an 18-month period.

- *OPH1007 Fovista in Combination with Avastin Discontinuous Regimen Study.* During the fourth quarter of 2015, we initiated a randomized, double-masked, controlled Phase 2b clinical trial to evaluate the safety and efficacy of a discontinuous, bi-monthly regimen of 1.5 mg of Fovista administered in combination with Avastin during the maintenance phase of wet AMD treatment compared to a discontinuous, bi-monthly regimen of Avastin monotherapy.

- *OPH1008 Fovista Imaging Study.* During the fourth quarter of 2015, we initiated an open-label Phase 2a clinical trial to investigate the role of multi-modal imaging in assessing anatomic responses to various wet AMD treatment regimens of Fovista administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin).

We may in the future seek to pursue additional clinical trials to assess the potential therapeutic benefit of Fovista in wet AMD as well as other ophthalmic conditions.

Novartis Agreement

In May 2014, we entered into a licensing and commercialization agreement with Novartis Pharma AG, which we refer to as the Novartis Agreement. Under the Novartis Agreement, we granted Novartis exclusive rights under specified patent rights, know-how and trademarks controlled by us to manufacture, from bulk active pharmaceutical ingredient, or API, supplied by us, standalone Fovista products and products combining Fovista with an anti-VEGF drug to which Novartis has rights in a co-formulated product, for the treatment, prevention, cure or control of any human disease, disorder or condition of the eye, and to develop and commercialize those licensed products in all countries outside of the United States, which we refer to as the Novartis Territory. We have agreed to use commercially reasonable efforts to complete our ongoing pivotal Phase 3 clinical program for Fovista and Novartis has agreed to use commercially reasonable efforts to develop a standalone Fovista product and a co-formulated product containing Fovista and an anti-VEGF drug to which Novartis has rights, as well as a pre-filled syringe presentation of such products and to use commercially reasonable efforts, subject to obtaining marketing approval, to commercialize licensed products in the Novartis Territory in accordance with agreed development and marketing plans.

Novartis paid us a $200.0 million upfront fee upon execution of the Novartis Agreement. Under the terms of the Novartis Agreement, Novartis is also obligated to pay us up to an aggregate of $130.0 million if we achieve specified patient enrollment-based milestones for our Phase 3 clinical program for Fovista, $50.0 million of which we achieved in September 2014 and received in October 2014 and $50.0 million of which we achieved in March 2015 and received in April 2015, and up to an aggregate of an additional $300.0 million upon achievement of specified regulatory milestones, including marketing approval and reimbursement approval in certain countries in the Novartis Territory. In addition, Novartis has agreed to pay us up to an aggregate of an additional $400.0 million if Novartis achieves specified sales milestones in the Novartis Territory. Novartis also is obligated to pay us royalties with respect to standalone Fovista products and combination Fovista products that Novartis successfully commercializes. We will receive royalties at a mid-thirties percentage of net sales of standalone Fovista products and a royalty of approximately equal value for sales of combination Fovista products. Such royalties are subject to customary deductions, credits, and reductions for lack of patent coverage or market exclusivity. Novartis's obligation to pay such royalties will continue on a licensed product-by-licensed product and country-by-country basis until Novartis's last actual commercial sale of such licensed product in such country. We will continue to be responsible for royalties we owe to third parties on sales of Fovista products.

We have retained control over the design and execution of our pivotal Phase 3 clinical program for Fovista and remain responsible for funding the costs of that program, subject to Novartis's

responsibility to provide Lucentis, an anti-VEGF drug to which Novartis has rights in the Novartis Territory, for use in the Phase 3 trials already initiated and in other Phase 2 and Phase 3 clinical trials in the Novartis Territory initiated following the effective date of the Novartis Agreement. Novartis will have control over, and will be responsible for the costs of, all other clinical trials that may be required to obtain marketing approvals in the Novartis Territory for licensed products under the agreement. Novartis is also responsible for costs associated with co-formulation development, pre-filled syringe development and other development costs in the Novartis Territory, but excluding regulatory filing fees in the European Union for the standalone Fovista product, for which we will be responsible.

In November 2015, we were informed by Novartis that Genentech, Inc., a Roche wholly-owned subsidiary, elected to exercise its option to participate in the financial arrangements relating to Novartis' rights under the Novartis Agreement. Roche's option originated from a pre-existing agreement between Roche and Novartis. The ex-U.S. commercialization agreement between Ophthotech and Novartis and its financial terms remained unchanged as a result of the exercise of the opt-in right. We continue to retain sole rights to Fovista in the United States.

Zimura Clinical Development

Currently, we have the following ongoing clinical trials for Zimura:

- *Zimura Phase 2/3 GA Study.* During the fourth quarter of 2015, we initiated, a randomized, double-masked, controlled Phase 2/3 clinical trial to evaluate the safety and efficacy of Zimura monotherapy in patients with GA. We plan to enroll approximately 300 patients in the initial stage of the trial. During this stage, patients will be randomized into three groups, and will receive monthly injections of 1.0 mg of Zimura per eye, monthly injections of 2.0 mg of Zimura per eye or monthly sham injections as the control arm. At month 18, we plan to conduct an interim analysis to assess the safety and efficacy of Zimura compared to sham. Upon review of this interim analysis, a determination will be made whether to continue the trial and whether to expand the trial by enrolling additional patients. Patients in the trial will receive monthly injections for 24 months.

- *Zimura Phase 2a Wet AMD Study.* During the fourth quarter of 2015, we initiated an open-label Phase 2a clinical trial to evaluate Zimura's potential role when administered in combination with anti-VEGF drugs (Lucentis, Eylea or Avastin) for the treatment of wet AMD.

- *Zimura PCV Study.* In late 2014, we commenced a very small, open-label Phase 2 clinical trial investigating Zimura's potential role when administered in combination with anti-VEGF drugs for the treatment of polypoidal choroidal vasculopathy, or PCV, a specific type of wet AMD, in patients who do not respond adequately to treatment with anti-VEGF monotherapy or for whom anti-VEGF monotherapy fails. Our initial, preliminary analysis of the data from this trial has not revealed any safety concerns related to Zimura.

Overview of Funding History and Requirements

We were incorporated and commenced active operations in 2007. Our operations to date have been primarily limited to organizing and staffing our company, acquiring rights to product candidates, business planning, raising capital and developing Fovista and Zimura. We acquired our rights to Fovista from (OSI) Eyetech, Inc., or Eyetech, in July 2007. The acquisition included an assignment of license rights and obligations under an agreement with Archemix Corp. We have licensed rights to our product candidate Zimura from Archemix Corp. Since inception, we have incurred significant operating losses. As of December 31, 2015, we had an accumulated deficit of $405.5 million. Our net loss was $105.7 million for the year ended December 31, 2015, and $116.8 million for the year ended December 31, 2014, and we expect to continue to incur significant operating losses in 2016 and potentially 2017. We have not generated any revenues from product sales and have financed our

operations primarily through private placements of our preferred stock, venture debt borrowings, funding under our royalty purchase and sale agreement with Novo A/S, which we refer to as the Novo Agreement, our initial public offering of common stock, which we closed in September 2013, our follow-on public offering of common stock, which we closed in February 2014, and funds we received under the Novartis Agreement. We received net proceeds from our initial public offering of $175.6 million, after deducting underwriting discounts and commissions and other offering expenses payable by us. We received net proceeds from the follow-on public offering of $55.4 million, after deducting underwriting discounts and commissions and other offering expenses payable by us. We have received $125.0 million of funding under the Novo Agreement, which constitutes the full amount of funding under that agreement. We also received an upfront payment of $200.0 million from Novartis upon the execution of the Novartis Agreement and enrollment-based milestone payments of $50.0 million in October 2014 and $50.0 million in April 2015.

We expect our expenses to continue to increase, particularly as we continue the development of Fovista in our Phase 3 clinical program, as we further evaluate the potential benefit of Fovista when administered in combination with anti-VEGF drugs in wet AMD patients through the Fovista Expansion Studies, and potentially in other ophthalmic diseases and conditions with unmet medical need, and as we pursue the development of Zimura through our Zimura development programs. We expect our expenses to increase as we initiate additional trials and as patient enrollment increases in trials that have already commenced. We also expect our expenses to increase as we manufacture validation batches of API and drug product for Fovista. In addition, our expenses will increase prior to obtaining marketing approval for Fovista as we expand our commercial infrastructure and build-up our Fovista API supply to support the anticipated launch of Fovista. Furthermore, if we obtain marketing approval for Fovista, Zimura or any other product candidate that we may develop, we expect our commercialization expenses related to product sales, marketing, distribution and manufacturing to increase significantly. We are party to agreements, specifically a divestiture agreement with OSI (Eyetech), Inc., which agreement is now held by OSI Pharmaceuticals, LLC, a subsidiary of Astellas US, LLC, and license agreements with Archemix Corp. and Nektar Therapeutics, that impose significant milestone payment obligations on us in connection with our achievement of specific clinical, regulatory and commercial milestones with respect to Fovista and Zimura. We are also exploring the potential of an ophthalmic formulation for tivozanib, a small molecule VEGF tyrosine kinase inhibitor for which we have an option to obtain a license, and expect our expenses to increase as we continue the preclinical development of this compound, including in the event we elect to exercise our option or in the event we trigger certain milestone payment obligations. Furthermore, we are incurring and expect to continue to incur costs associated with hiring additional personnel and expanding our facilities. See "—Liquidity and Capital Resources—Funding Requirements" for a discussion of factors affecting our future capital requirements.

Our ability to become and remain profitable depends on our ability to generate revenue in excess of our expenses. We do not expect to generate significant product revenue unless, and until, we obtain marketing approval for, and commercialize, Fovista, Zimura or other product candidates that we may develop. We may be unsuccessful in our efforts to develop and commercialize these 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. Our capital requirements will also depend on many other factors, including whether we pursue the acquisition or in-licensing and subsequent development of additional product candidates or technologies. We may need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

Financial Operations Overview

Revenue

Prior to 2014, we had not generated any revenue. In May 2014, we received an upfront payment of $200.0 million in connection with our entry into the Novartis Agreement, which has not been recorded as revenue due to certain contingencies associated with the payment. In each of September 2014 and March 2015, we achieved a $50.0 million enrollment-based milestone, or $100.0 million in aggregate, under the Novartis Agreement. We recognized revenue of approximately $51.5 million during the year ended December 31, 2015, the majority of which related to the $50.0 million milestone payment we achieved in March 2015. The balance of the milestone payment was recorded as deferred revenue. We use the relative selling price method to allocate arrangement consideration to our performance obligations under the Novartis Agreement. Below is a summary of the components of our collaboration revenue for the years ended December 31, 2015, 2014 and 2013:

	Years ended December 31,		
	2015	2014	2013
	(in thousands)		
License revenue	$ 38,083	$ 38,373	$ —
Research and development activity revenue	8,378	2,000	—
API transfer revenue	5,020	883	—
Joint operating committee revenue	24	3	—
Total collaboration revenue	$ 51,505	$ 41,259	$ —

In the future, we may generate additional revenue from a combination of product sales and license fees, milestone payments and research and development activity-related payments, payments for manufactured material and royalties in connection with the Novartis Agreement. We expect that any revenue we generate will fluctuate from quarter to quarter as a result of the timing and amount of certain milestone and other payments, if any, that we may receive from Novartis and the amount and timing of payments that we receive upon the sale of our products, to the extent any are successfully commercialized. We do not expect to generate revenue from product sales until the end of 2017 at the earliest. If we fail to complete the development of Fovista, Zimura or other product candidates we may develop, in a timely manner or obtain regulatory approval for them, our ability to generate future revenue and our results of operations and financial position, would be materially adversely affected.

Research and Development Expenses

Research and development expenses primarily consist of costs associated with the development and clinical testing and manufacturing of Fovista and Zimura, as well as costs associated with the preclinical development of other product candidates and formulations. Our research and development expenses consist of:

- external research and development expenses incurred under arrangements with third parties, such as contract research organizations, or CROs, and other vendors and contract manufacturing organizations, or CMOs, for the production of API and drug product; and

- employee-related expenses, including salaries, benefits and share-based compensation expense.

Research and development expenses also include costs of acquired product licenses and related technology rights where there is no alternative future use, costs of prototypes used in research and development, consultant fees and amounts paid to collaborative partners.

All research and development expenses are charged to operations as incurred in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic, or ASC, 730, *Research*

and Development. We account for non-refundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received, rather than when the payment is made.

To date, the large majority of our research and development work has been related to Fovista and Zimura. We anticipate that our research and development expenses will increase substantially in connection with our ongoing activities, particularly as we continue the development of and seek marketing approval for Fovista, Zimura and, possibly, other product candidates.

We do not currently utilize a formal time allocation system to capture expenses on a project-by-project basis because we record expenses by functional department. Accordingly, we do not allocate expenses to individual projects or product candidates, although we do allocate some portion of our research and development expenses by functional area and by compound, as shown below.

The following table summarizes our research and development expenses for the years ended December 31, 2015, 2014 and 2013:

	Years ended December 31,		
	2015	2014	2013
	(in thousands)		
Fovista	$ 86,906	$ 66,095	$ 26,206
Zimura	7,644	4,377	15
Personnel-related	15,830	9,514	4,770
Share-based compensation	16,608	7,594	2,062
Other	4,024	805	162
	$ 131,012	$ 88,385	$ 33,215

We anticipate that we will incur significant research and development expenses in connection with conducting our pivotal Phase 3 clinical program for Fovista and, if such trials are successful, seeking marketing approval for Fovista. We also expect that our research and development expenses will increase as we further evaluate the potential benefit of Fovista when administered in combination with anti-VEGF drugs in wet AMD patients through our Fovista Expansion Studies, and potentially, in other ophthalmic diseases and conditions with unmet medical need, and as a result of the pursuit of our Zimura development programs. We expect these research and development expenses to increase as we initiate additional trials and as patient enrollment increases in trials that have already commenced. In addition, we expect that we will incur significant expenses related to manufacturing validation activities associated with Fovista and process development and manufacturing scale-up and validation activities associated with Zimura.

Our expenses may exceed our expectations if we experience delays in enrollment or with the availability of drug supply for our clinical trials. Our expenses may also exceed our expectations if we increase our investigator fees for our clinical trials or if we further expand the scope of our clinical trials and programs, including, for example, by increasing the number of clinical trial sites or changing the geographic mix of sites at which patients are enrolled. Our costs may also exceed our expectations for other reasons, for example, if we experience issues with manufacturing validation, process development, the scale-up of manufacturing activities or activities to enable and qualify second source suppliers or if we decide to increase licensing or preclinical research and development activities.

Our current Phase 3 clinical program for Fovista is expected to continue into 2018, and we expect to incur substantial expenditures to complete the Phase 3 clinical program after the receipt of initial, top-line data, which we expect to be available during the fourth quarter of 2016 for the two Fovista Phase 3 Lucentis Trials and during 2017 for the Fovista Phase 3 Eylea/Avastin Trial based on current enrollment estimates. Furthermore, we expect the clinical development for Zimura will continue for at

least the next several years. At this time, we cannot reasonably estimate the remaining costs necessary to complete the clinical development of either Fovista or Zimura, complete manufacturing validation activities associated with Fovista and process development and manufacturing scale-up and validation activities associated with Zimura and seek marketing approval for Fovista or Zimura, or the nature, timing or costs of the efforts necessary to complete the development of any other product candidate we may develop.

The successful development of our product candidates is highly uncertain. See "Risk Factors." This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- the scope, rate of progress and expense of our research and development activities;
- the potential benefits of our product candidates over other therapies;
- clinical trial results;
- the terms and timing of regulatory approvals;
- our ability, together with any commercialization partner's ability, to market, commercialize and achieve market acceptance for any of our product candidates; and
- our ability to successfully file, prosecute, defend and enforce patent claims and other intellectual property rights, together with associated expenses.

A change in the outcome of any of these variables with respect to the development of Fovista, Zimura or any other product candidate we may develop could mean a significant change in the costs and timing associated with the development of that product candidate. For example, if regulatory authorities were to require us to conduct clinical trials beyond those that we currently anticipate will be required for the completion of clinical development of Fovista or any other product candidate or if we experience significant delays in enrollment in any clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development.

See the "Liquidity and Capital Resources" section on page 149 of this Annual Report on Form 10-K for more information regarding our current and future financial resources and our expectations regarding our research and development expenses and funding requirements.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related costs for personnel, including share-based compensation expense, in our executive, legal, finance, commercial and business development functions. Other general and administrative expenses include facility costs and professional fees for legal, patent, pre-launch commercialization activities, travel expenses, consulting and accounting services.

We anticipate that our general and administrative expenses will increase in future periods to support increases in our research and development, manufacturing, and commercialization activities and as a result of increased personnel, including management personnel to support our research and development, manufacturing and commercialization activities, expanded infrastructure, increased legal, compliance, accounting and investor and public relations expenses associated with being a public company and increased insurance premiums, among other factors.

Interest Income

Our cash, cash equivalents and marketable securities are invested primarily in money market funds, U.S. Treasury securities and investment-grade corporate debt securities, which generate a nominal amount of interest income.

Critical Accounting Policies and Significant Judgments and Estimates

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

Our significant accounting policies are described in more detail in the notes to our financial statements appearing elsewhere in this Annual Report on Form 10-K. Of those policies, we believe that the following accounting policies are the most critical to aid our stockholders in fully understanding and evaluating our financial condition and results of operations.

Accrued Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued expenses. This process involves reviewing quotations and contracts, identifying services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses are related to expenses incurred with respect to CROs, CMOs and other vendors in connection with research and development and manufacturing activities.

We base our expenses related to CROs and CMOs on our estimates of the services received and efforts expended pursuant to quotes and contracts with such vendors that conduct research and development and manufacturing activities on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the applicable research and development or manufacturing expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid expense accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and could result in us reporting amounts that are too high or too low in any particular period. There have been no material changes in estimates for the periods presented.

Revenue Recognition—Collaboration Revenue

Prior to 2014, we had not generated any revenue. In May 2014, we received an upfront payment of $200.0 million in connection with our entry into the Novartis Agreement, which has not been recorded as revenue due to certain contingencies associated with the payment. In each of September 2014 and March 2015, we achieved a $50.0 million enrollment-based milestone under the Novartis Agreement, or

$100.0 million in the aggregate. We recognized collaboration revenue of approximately $51.5 million during the year ended December 31, 2015, the majority of which related to the $50.0 million milestone payment we achieved in March 2015. The balance of the milestone payment was recorded as deferred revenue. We use the relative selling price method to allocate arrangement consideration to our performance obligations under the Novartis Agreement. Below is a summary of the components of our collaboration revenue for the years ended December 31, 2015, 2014 and 2013:

	Years ended December 31,		
	2015	2014	2013
	(in thousands)		
License revenue	$ 38,083	$ 38,373	$ —
Research and development activity revenue	8,378	2,000	—
API transfer revenue	5,020	883	—
Joint operating committee revenue	24	3	—
Total collaboration revenue	$ 51,505	$ 41,259	$ —

In the future, we may generate additional revenues from a combination of product sales and license fees, milestone payments, research and development activity-related payments, payments for manufactured material and royalties in connection with the Novartis Agreement. The terms of this agreement and other potential collaboration or commercialization agreements we may enter into generally contain multiple elements, or deliverables, which may include (i) licenses, or options to obtain licenses, to our technology, (ii) research and development activities to be performed on behalf of the collaborative partner and (iii) in certain cases, services in connection with the manufacturing of preclinical, clinical or commercial material. Payments to us under these arrangements typically include one or more of the following: non-refundable, upfront license fees; option exercise fees; funding of research and/or development efforts; milestone payments; payments for manufactured material; and royalties on future product sales.

When evaluating multiple element arrangements, we consider whether the deliverables under the arrangement represent separate units of accounting. This evaluation requires subjective determinations and requires management to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. In determining the units of accounting, management evaluates certain criteria, including whether the deliverables have standalone value, based on the consideration of the relevant facts and circumstances for each arrangement. The consideration received is allocated among the separate units of accounting using the relative selling price method, and the applicable revenue recognition criteria are applied to each of the separate units.

We determine the estimated selling price for deliverables within each agreement using vendor-specific objective evidence ("VSOE") of selling price, if available, third-party evidence ("TPE") of selling price if VSOE is not available, or best estimate of selling price ("BESP") if neither VSOE nor TPE is available. Determining the best estimate of selling price for a deliverable requires significant judgment. We use BESP to estimate the selling price for licenses to our proprietary technology, since we often do not have VSOE or TPE of selling price for these deliverables. In those circumstances where we utilize BESP to determine the estimated selling price of a license to our proprietary technology, we consider market conditions as well as entity-specific factors, including those factors contemplated in negotiating the agreements as well as internally developed models that include assumptions related to the market opportunity, estimated development costs, probability of success and the time needed to commercialize a product candidate pursuant to the license. In validating our BESP, we evaluate whether changes in the key assumptions used to determine the BESP will have a significant effect on the allocation of arrangement consideration among multiple deliverables.

When management believes the license to our intellectual property and products has stand-alone value, we generally recognize revenue attributed to the license upon delivery. When management believes such a license does not have stand-alone value from the other deliverables to be provided in the arrangement, we generally recognize revenue attributed to the license on a straight-line basis over our contractual or estimated performance period, which is typically the term of our research and development obligations. If management cannot reasonably estimate when our performance obligation ends, then revenue is deferred until management can reasonably estimate when the performance obligation ends. The periods over which revenue should be recognized are subject to estimates by management and may change over the course of the research and development agreement. Such a change could have a material impact on the amount of revenue we record in future periods.

At the inception of arrangements that include milestone payments, we evaluate whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. This evaluation includes an assessment of whether (a) the consideration is commensurate with either (1) the entity's performance to achieve the milestone, or (2) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the entity's performance to achieve the milestone, (b) the consideration relates solely to past performance, and (c) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. We evaluate factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

We aggregate our milestones into three categories: (i) clinical and development milestones, (ii) regulatory milestones, and (iii) commercial milestones. Clinical and development milestones are typically achieved when a product candidate advances into a defined phase of clinical research or completes such phase or when a contractually specified clinical trial enrollment target is attained. Regulatory milestones are typically achieved upon acceptance of the submission of an application for marketing approval of a product candidate or upon approval to market the product candidate by the FDA or other regulatory authorities. Commercial milestones are typically achieved when an approved pharmaceutical product reaches certain defined levels of net sales by the licensee, such as when a product first achieves global sales or annual sales of a specified amount.

Revenues from clinical and development and regulatory milestone payments, if the milestones are deemed substantive and the milestone payments are nonrefundable, are recognized upon successful accomplishment of the milestones. With regards to the Novartis Agreement, we have concluded that the clinical and development milestones and certain reimbursement approval milestones are not substantive and that the marketing approval milestones are substantive. Milestone payments received that are not considered substantive are included in the allocable arrangement consideration and are recognized as revenue in proportion to the relative-selling price allocation established at the inception of the arrangement. Revenues from commercial milestone payments are accounted for as royalties and are recorded as revenue upon achievement of the milestone, assuming all other revenue recognition criteria are met.

Royalty Purchase Liability

The proceeds from the financing we received under the Novo Agreement have been recorded as a liability on our balance sheet in accordance with ASC 730, *Research and Development*. Because there is a significant related party relationship between us and Novo A/S, we are treating our obligation to make royalty payments under the Novo Agreement as an implicit obligation to repay the funds advanced by Novo A/S, and thus have recorded the proceeds as a liability on our balance sheet. As we make royalty payments to Novo A/S in accordance with the Novo Agreement, we will reduce the liability balance. At the time that such royalty payments become probable and estimable, and if such

amounts exceed the liability balance, we will impute interest accordingly on a prospective basis based on such estimates, which would result in a corresponding increase in the liability balance.

Share-Based Compensation

We account for all share-based compensation payments issued to employees, non-employee directors, and consultants by estimating the fair value of each equity award. Accordingly, share-based compensation expense is measured based on the estimated fair value of the awards on the date of grant, net of forfeitures. We recognize compensation expense for the portion of the award that is ultimately expected to vest over the period during which the recipient renders the required services to us using the straight-line single option method. In accordance with authoritative guidance, we re-measure the fair value of consultant share-based awards as the awards vest, and recognize the resulting value, if any, as expense during the period the related services are rendered.

We apply the fair value recognition provisions of ASC 718, *Compensation—Stock Compensation*. Determining the amount of share-based compensation to be recorded requires us to develop estimates of the fair value of stock options as of their grant date. We recognize share-based compensation expense ratably over the requisite service period, which in most cases is the vesting period of the award. For grants containing performance-based vesting provisions, expense is recognized over the estimated achievement period. Calculating the fair value of share-based awards requires that we make highly subjective assumptions.

We use the Black-Scholes option pricing model to value our stock option awards. Use of this valuation methodology requires that we make assumptions as to the volatility of our common stock, the expected term of our stock options, and the risk free interest rate for a period that approximates the expected term of our stock options and the expected dividend yield of our common stock. As a recent public company, we do not have sufficient history to estimate the volatility of our common stock price or the expected life of the options. We calculate expected volatility based on reported data for similar publicly traded companies for which historical information is available and will continue to do so until the historical volatility of our common stock is sufficient to measure expected volatility for future option grants.

We use the simplified method as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term of stock option grants to employees as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term of stock options granted to employees. The risk-free interest rate used for each grant is based on the U.S. Treasury yield curve in effect at the time of grant for instruments with a similar expected life. We utilize a dividend yield of zero based on the fact that we have never paid cash dividends and have no current intention to pay cash dividends. The weighted-average assumptions used to estimate grant date fair value of stock options using the Black-Scholes option pricing model were as follows for the years ended December 31, 2015, 2014 and 2013:

	Years ended December 31,		
	2015	2014	2013
Expected common stock price volatility	72%	82%	83%
Risk-free interest rate	1.35% - 2.24%	1.61% - 2.13%	0.89% - 2.94%
Expected term of options (years)	6.2	6.2	6.1
Expected dividend yield	0%	0%	0%

We estimate the fair value of restricted stock units, or RSUs, granted to employees using the closing market price of our common stock on the date of grant.

We are also required to estimate forfeitures at the time of grant, and revise those estimates in subsequent periods if actual forfeitures differ from our estimates. We use historical data to estimate pre-vesting forfeitures and record share-based compensation expense only for those awards that are expected to vest. To the extent that actual forfeitures differ from our estimates, the difference is recorded as a cumulative adjustment in the period the estimates were revised.

Share-based compensation expense for equity grants to employees, non-employee directors and consultants was $24.8 million, $13.0 million and $2.9 million for the years ended December 31, 2015, 2014, and 2013, respectively. As of December 31, 2015, we had $49.8 million of total unrecognized share-based compensation expense, which we expect to recognize over a weighted-average remaining vesting period of approximately 2.6 years. We expect our share-based compensation for our equity awards to employees, non-employee directors and consultants to increase as a result of recognizing our existing unrecognized share-based compensation for awards that will vest and as we issue additional equity awards to attract and retain our employees.

For the years ended December 31, 2015, 2014 and 2013, we allocated share-based compensation as follows:

	Years ended December 31,		
	2015	2014	2013
		(in thousands)	
Research and development	$ 16,608	$ 7,594	$ 2,062
General and administrative	8,152	5,446	809
Total	$ 24,760	$ 13,040	$ 2,871

Income Taxes

In 2014, we received $83.3 million from Novo A/S under the Novo Agreement, which was reported as revenue for income tax purposes. Also in 2014, we received $200.0 million from Novartis upon execution of the Novartis Agreement, a portion of which was reported as revenue for income tax purposes. In addition, we received a milestone payment of $50.0 million in 2014 from Novartis which was reported as revenue for income tax purposes. As a result of these payments, and after taking into account the utilization of our federal and state net operating loss carry-forwards and utilization of our research and development tax credits, we reported taxable income for tax purposes in 2014. We made income tax payments of $40.2 million during the year ended December 31, 2014. We incurred tax losses for 2015 and as such, we recorded a benefit for income taxes of $16.8 million for the year ended December 31, 2015. The valuation allowance on certain of our deferred tax assets has been released, where appropriate. See Note 9 to our financial statements in Part IV-Item 15 of this Annual Report on form 10-K for further information regarding our expectations with respect to our income tax provision.

Results of Operations

Comparison of Years Ended December 31, 2015 and 2014

	Years ended December 31, 2015	2014	Increase (Decrease)
	(in thousands)		
Statements of Operations Data:			
Collaboration revenue	$ 51,505	$ 41,259	$ 10,246
Operating expenses:			
Research and development	131,012	88,385	42,627
General and administrative	44,021	33,387	10,634
Total operating expenses	175,033	121,772	53,261
Loss from operations	(123,528)	(80,513)	43,015
Interest income	971	217	754
Other income	53	—	53
Loss before income tax provision	(122,504)	(80,296)	42,208
Income tax (benefit) provision	(16,787)	36,476	(53,263)
Net loss	$ (105,717)	$ (116,772)	$ (11,055)

Collaboration Revenue

Collaboration revenue for the year ended December 31, 2015 was $51.5 million, an increase of $10.2 million compared to $41.3 million for the year ended December 31, 2014. Using the relative selling price method, for the year ended December 31, 2015, we allocated $38.1 million to the license delivered to Novartis under the Novartis Agreement, $8.4 million to research and development activities performed under the Novartis Agreement, $5.0 million related to Fovista API we transferred to Novartis, and a de minimis amount of revenue associated with our joint operating committee participation obligation.

Collaboration revenue for the year ended December 31, 2014 was $41.3 million, of which $38.4 million was allocated to the license delivered to Novartis under the Novartis Agreement, $2.0 million was allocated to research and development activities performed under the Novartis Agreement and $0.9 million related to Fovista API we transferred to Novartis during the same period.

Research and Development Expenses

Our research and development expenses were $131.0 million for the year ended December 31, 2015, an increase of $42.6 million compared to $88.4 million for the year ended December 31, 2014. Research and development expenses for the year ended December 31, 2014 included a $19.8 million milestone payment we made in connection with our entry into the Novartis Agreement, which represented a significant portion of our research and development expenses for the year ended December 31, 2014. The increase in research and development expenses for the year ended December 31, 2015 was primarily due to a $40.6 million increase in costs associated with our Fovista program, including our Fovista Phase 3 clinical program and our Fovista Expansion Studies. The increased costs for our Fovista program included higher clinical trial costs relating to increased patient enrollment in the Fovista Phase 3 clinical trials and the Fovista Expansion Studies, the initiation of additional Fovista Expansion Studies, as well as higher manufacturing costs to support our clinical trials and for API validation activities. In addition, costs for our Zimura program increased by approximately $3.3 million, with such increase primarily related to increased manufacturing and clinical trial costs. Also contributing to the overall increase was a $9.0 million increase to share-based compensation costs

and a $6.3 million increase to personnel expenses associated with additional research and development staffing.

General and Administrative Expenses

Our general and administrative expenses were $44.0 million for the year ended December 31, 2015, an increase of $10.6 million, compared to $33.4 million for the year ended December 31, 2014. The increase was primarily due to an increase in personnel costs of $3.0 million, share-based compensation costs of $2.7 million, an increase of $1.4 million in facility costs, as well as other costs to support the expansion of our operations, including our public company infrastructure, and the early stages of a commercial organization. Also contributing to the increase were increased costs for pre-launch commercialization activities, professional services and consulting fees of $2.0 million.

Interest Income

Interest income for the year ended December 31, 2015 was $1.0 million compared to interest income of $0.2 million for the year ended December 31, 2014. The increase in interest income earned during the year ended December 31, 2015 was the result of an increase in our average investment portfolio balances, and a change in the mix of our investment portfolio, which previously included only investments in U.S. Treasury securities and now includes investments in certain investment-grade corporate debt securities.

Income tax (benefit) provision

During the year ended December 31, 2015, we recorded a benefit from income taxes of approximately $16.8 million, which related to our expected tax losses for tax year 2015 and our ability to carry these losses back to 2014 to recapture a portion of the federal income tax payments we paid in 2014. During the year ended December 31, 2014, we recorded a provision for income taxes of approximately $36.5 million, which primarily related to taxable income that resulted from payments we received under the Novartis Agreement and the Novo Agreement in 2014.

Comparison of Years Ended December 31, 2014 and 2013

	Years ended December 31,		Increase (Decrease)
	2014	2013	
	(in thousands)		
Statements of Operations Data:			
Collaboration revenue	$ 41,259	$ —	$ 41,259
Operating expenses:			
Research and development	88,385	33,215	55,170
General and administrative	33,387	14,210	19,177
Total operating expenses	121,772	47,425	74,347
Loss from operations	(80,513)	(47,425)	33,088
Interest income (expense)	217	(1,454)	1,671
Loss on extinguishment of debt	—	(1,091)	(1,091)
Other loss	—	(1,175)	(1,175)
Loss before income tax provision	(80,296)	(51,145)	29,151
Income tax provision	36,476	—	36,476
Net loss	(116,772)	(51,145)	65,627
Add: accretion of preferred stock dividends	—	(5,891)	(5,891)
Net loss attributable to common stockholders	$ (116,772)	$ (57,036)	$ 59,736

Collaboration Revenue

Collaboration revenue for the year ended December 31, 2014 was approximately $41.3 million. Using the relative selling price method, we allocated $38.4 million to the license delivered to Novartis under the Novartis Agreement, $2.0 million to research and development activities performed under the Novartis Agreement and $0.9 million related to the Fovista API we transferred to Novartis during the year ended December 31, 2014.

We did not recognize any revenue during the year ended December 31, 2013.

Research and Development Expenses

Our research and development expenses were $88.4 million for the year ended December 31, 2014, an increase of $55.2 million compared to $33.2 million for the year ended December 31, 2013. The increase was primarily due to a $25.3 million increase in costs associated with our Fovista program, including our Fovista Phase 3 clinical program and our Fovista Expansion Studies. The increased costs for our Fovista program included higher clinical trial costs relating to increased patient enrollment in the Fovista Phase 3 clinical trials and the initiation of certain Fovista Expansion Studies, as well as higher manufacturing costs to support our clinical trials. The increase was also due to a higher milestone payment of $19.8 million that we made in June 2014 in connection with our entry into the Novartis Agreement, as compared to $3.5 million in milestone payments we made in 2013 in connection with the initiation of our Phase 3 clinical trials in August 2013. In addition, costs for our Zimura program increased by approximately $4.4 million, with such increase primarily related to increased manufacturing costs. Also contributing to the overall increase was a $5.5 million increase to share-based compensation costs and a $4.7 million increase to personnel expenses associated with additional research and development staffing.

General and Administrative Expenses

Our general and administrative expenses for the year ended December 31, 2014 were $33.4 million, an increase of $19.2 million compared to $14.2 million for the year ended December 31, 2013. The increase was primarily due to a $4.6 million increase to share-based compensation costs and a $7.0 million increase to personnel costs. These increases were primarily due to an increase in personnel to support the expansion of our operations, including our public company infrastructure, as well as the hiring of additional management and corporate staffing, costs related to an executive retirement and other one-time post-employment costs. Also contributing to the increase were increased professional services and consulting fees, infrastructure costs, insurance costs and travel costs.

Interest Income (Expense), Net

Net interest income for the year ended December 31, 2014 was $0.2 million compared to net interest expense of $1.5 million for the year ended December 31, 2013. Net interest income earned during the year ended December 31, 2014 was a result of a significant increase in our investment portfolio average balances during the year ended December 31, 2014 as compared to the year ended December 31, 2013. The amounts recorded in the year ended December 31, 2013 were related to interest expense associated with our venture debt facility that we entered into in June 2012. The debt facility was paid off in May 2013 and as such, there was no corresponding interest expense during the year ended December 31, 2014.

Other Loss

There was no other loss recorded for the year ended December 31, 2014 compared to other loss of $1.2 million for the year ended December 31, 2013. Amounts recorded as other loss were due to the change in fair value of the preferred stock warrant liability recorded in the first half of 2013. Upon completion of our initial public offering on September 30, 2013, the preferred stock warrants were converted to common stock warrants and are now treated as permanent equity.

Provision for Income Taxes

The provision for income taxes recorded for the year ended December 31, 2014 was $36.5 million. This primarily relates to the payments we received from Novartis and Novo A/S in 2014, a significant portion of which contributed to an increase in taxable income for 2014. For the year ended December 31, 2013, we did not record a provision for income taxes due to our significant operating losses.

Liquidity and Capital Resources

Sources of Liquidity

Since inception, we have financed our operations primarily through private placements of our preferred stock, venture debt borrowings, funding we received under the Novo Agreement, our initial public offering of common stock, which we closed in September 2013, our follow-on public offering of common stock, which we closed in February 2014, and funds we received under the Novartis Agreement. In September 2013, we issued and sold an aggregate of 8,740,000 shares of common stock in our initial public offering at a public offering price of $22.00 per share. We received net proceeds from the initial public offering of $175.6 million. In February 2014, we issued and sold 1,900,000 shares of common stock and selling shareholders sold 728,571 shares of common stock in a follow-on public offering at a public offering price of $31.50 per share. We received net proceeds of $55.4 million from the follow-on offering. The Novo Agreement, which is described in more detail below, provided for financing of up to $125.0 million in the aggregate in return for the sale to Novo A/S of royalty interests in worldwide sales of Fovista. We received an aggregate of $125.0 million from this financing in

separate tranches in May 2013, January 2014 and November 2014, which constitutes the full amount of funding under the Novo Agreement. In May 2013, we issued and sold an aggregate of 6,666,667 shares of our series C preferred stock at a price per share of $2.50, for an aggregate purchase price of $16.7 million. In August 2013, we issued and sold an aggregate of 13,333,333 additional shares of our series C preferred stock to the same purchasers at a price per share of $2.50, for an aggregate purchase price of $33.3 million.

In May 2014, we received an upfront payment of $200.0 million upon execution of the Novartis Agreement in connection with the grant of a license for the rights to commercialize Fovista outside the United States. Novartis is also obligated to pay us up to an aggregate of $130.0 million if we achieve specified patient enrollment-based milestones for our ongoing pivotal Phase 3 clinical program for Fovista, of which, $50.0 million was received in October 2014 and $50.0 million was received in April 2015. In connection with the receipt of the upfront payment from Novartis, we made a milestone payment in June 2014 of approximately $19.8 million under one of our license agreements. We are entitled to certain additional future payments from Novartis based on the continued clinical development, regulatory approval and commercial success of Fovista. See "Licensing and Commercialization Agreement with Novartis Pharma AG" below for further information.

Cash Flows

As of December 31, 2015, we had cash, cash equivalents and marketable securities totaling $391.9 million and no debt. We primarily invest our cash, cash equivalents and marketable securities in U.S. Treasury securities, money market funds and certain investment-grade corporate debt securities.

The following table shows a summary of our cash flows for the years ended December 31, 2015, 2014 and 2013:

	Years ended December 31,		
	2015	2014	2013
		(in thousands)	
Net cash provided by (used in):			
Operating Activities	$ (78,531)	$ 111,088	$ (48,775)
Investing Activities	247,803	(427,817)	(5)
Financing Activities	12,775	145,947	255,072
Net change in cash and cash equivalents	$ 182,047	$ (170,782)	$ 206,292

Cash Flows from Operating Activities

Net cash used in operating activities for the year ended December 31, 2015 was $78.5 million and relates primarily to net cash used to fund our Fovista Phase 3 program, our Fovista expansion studies, Fovista manufacturing activities, as well as manufacturing and clinical trial costs for our Zimura program and expenditures related to general and administrative expenses. These expenditures were offset by a $50.0 million enrollment-based milestone payment we received in connection with the Novartis Agreement in April 2015.

Net cash provided by operating activities for the year ended December 31, 2014 was $111.1 million and related primarily to the receipt of $250.0 million in connection with the Novartis Agreement. Offsetting these cash receipts was a $19.8 million milestone payment to a third party in connection with our entry into the Novartis Agreement, and cash used to fund our efforts to advance our Fovista Phase 3 program, including increased spending on clinical trial costs and manufacturing activity for Fovista.

We expect cash used in operating activities to continue to increase substantially compared to prior periods and for the foreseeable future for the reasons described below under "—Funding Requirements".

Cash Flows from Investing Activities

Net cash provided by investing activities for the year ended December 31, 2015 was $247.8 million and relates primarily to proceeds from the sale or maturity of marketable securities totaling $662.0 million offset by purchases of marketable securities totaling $411.6 million and capital expenditures associated with the expansion of our office facilities in New York, New York and the relocation to a new office facility in Princeton, New Jersey. Net cash used in investing activities for the year ended December 31, 2014 was $427.8 million, which related primarily to the purchase of marketable securities totaling $597.8 million, offset by maturities of marketable securities of $171.6 million.

Cash Flows from Financing Activities

Net cash provided by financing activities was $12.8 million for the year ended December 31, 2015 and $145.9 million for the year ended December 31, 2014. Net cash provided by financing activities for the year ended December 31, 2015 consisted of proceeds from stock option exercises. Net cash provided by financing activities for the year ended December 31, 2014 consisted primarily of proceeds of $55.4 million from our follow-on public offering in February 2014, and proceeds of $83.3 million from our royalty agreement with Novo A/S in January 2014.

Funding Requirements

Our product candidates, Fovista and Zimura, are in clinical development. We expect our expenses to continue to increase, particularly as we continue the development of Fovista in our Phase 3 clinical program. We expect our expenses to increase as we further evaluate the potential benefit of Fovista when administered in combination with anti-VEGF drugs in wet AMD patients through the Fovista Expansion Studies, and potentially in other ophthalmic diseases and conditions with unmet medical need, and as we pursue the development of Zimura through our Zimura development programs. We expect our expenses to increase as we initiate additional trials and as patient enrollment increases in trials that have already commenced. We also expect our expenses to increase as we manufacture validation batches of API and drug product for Fovista. In addition, our expenses will increase prior to obtaining marketing approval for Fovista as we expand our commercial infrastructure and build-up our Fovista API supply to support the anticipated launch of Fovista. Furthermore, if we obtain marketing approval for Fovista, Zimura or any other product candidate that we may develop, we expect our commercialization expenses related to product sales, marketing, distribution and manufacturing to increase significantly. For Fovista, our ex-U.S. commercialization partner, Novartis, is responsible for these commercialization expenses outside the United States. We are party to agreements, specifically a divestiture agreement with OSI (Eyetech), Inc., which is now held by OSI Pharmaceuticals, LLC, a subsidiary of Astellas US, LLC, and license agreements with Archemix Corp., or Archemix, and Nektar Therapeutics, or Nektar, that impose significant milestone payment obligations on us in connection with our achievement of specific clinical, regulatory and commercial milestones with respect to Fovista and Zimura. For example, in connection with our entry into the Novartis Agreement, we made a milestone payment of $19.8 million to Nektar Therapeutics in June 2014. We are also exploring the potential of an ophthalmic formulation for tivozanib, a small molecule VEGF tyrosine kinase inhibitor for which we have an option to obtain a license, and expect our expenses to increase as we continue the preclinical development of this compound, including in the event we elect to exercise our option or in the event we trigger certain milestone payment obligations.

We expect that our expenses will further increase if and as we:

- undertake additional clinical development of Fovista, if it is approved, in support of our efforts to broaden the label for Fovista;
- conduct additional clinical trials of Zimura that may be required by regulatory authorities, including a second Phase 3 clinical trial for GA, to seek marketing approval for Zimura in any indication;
- continue to develop tivozanib for the treatment of ophthalmic diseases;
- in-license or acquire the rights to, and pursue research and development of, other complementary products, product candidates or technologies, including drug delivery technology, for the treatment of ophthalmic diseases;
- seek marketing approval for any product candidates that successfully complete clinical trials;
- hire additional clinical, manufacturing, quality control, quality assurance and scientific personnel;
- expand our outsourced manufacturing activities and establish sales, marketing and distribution capabilities, if we receive, or expect to receive, marketing approval for any product candidates;
- maintain, expand and protect our intellectual property portfolio; and
- add operational, financial and management information systems and personnel and expand our facilities.

As of December 31, 2015, we had cash, cash equivalents, and marketable securities of $391.9 million. We also had $368.9 million in total liabilities, $338.1 million of which related to the Novo Agreement and deferred revenue associated with the Novartis Agreement.

We believe that our cash, cash equivalents and marketable securities, together with the potential remaining enrollment-based $30.0 million milestone payment under the Novartis Agreement, will be sufficient to fund our operations and capital expenditure requirements as currently planned through the end of 2017.

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. Our capital requirements will depend on several factors, including the success of our development and commercialization of our product candidates and whether we pursue the acquisition or in-licensing and subsequent development of additional product candidates or technologies. For example, our expenses may exceed our expectations if we experience delays in enrollment or with the availability of drug supply for our clinical trials. Our expenses may also exceed our expectations if we increase our investigator fees for our clinical trials, if we further expand the scope of our clinical trials and programs, including, for example, by increasing the number of clinical trial sites or changing the geographic mix of sites at which patients are enrolled. Our costs may also exceed our expectations for other reasons, for example, if we experience issues with manufacturing validation, process development, the scale-up of manufacturing activities or activities to enable and qualify second source suppliers or if we decide to increase licensing or preclinical research and development activities or corporate staffing. If we are required by the U.S. Food and Drug Administration, or FDA, the European Medicines Agency, or EMA, or regulatory authorities in other jurisdictions to perform clinical or nonclinical trials or other studies in addition to those we currently expect to conduct, or if there are any delays in completing the clinical trials of Fovista or Zimura, or the development of any of other product candidates that we may develop, our expenses could increase. As a result, we may need or may seek to obtain additional funding in connection with our continuing operations prior than expected.

Moreover, our current Phase 3 clinical program for Fovista is expected to continue into 2018, and we expect to incur substantial expenditures to complete the Phase 3 clinical program after the receipt of initial, top-line data, which we expect to be available during the fourth quarter of 2016 for the two Fovista Phase 3 Lucentis Trials and during 2017 for the Fovista Phase 3 Eylea/Avastin Trials, based on current enrollment estimates. Furthermore, we expect the clinical development for Zimura will continue for at least the next several years. At this time, we cannot reasonably estimate the remaining costs necessary to complete the clinical development of either Fovista or Zimura, complete manufacturing validation activities associated with Fovista, process development and manufacturing scale-up and validation activities associated with Zimura and potentially seek marketing approval for Fovista and Zimura, or the nature, timing or costs of the efforts necessary to complete the development of any other product candidate we may develop.

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

- the scope, progress, costs and results of our Phase 3 clinical program for Fovista;
- the scope, progress, costs and results of the Fovista Expansion Studies to further evaluate the potential benefit of Fovista in wet AMD when administered in combination with anti-VEGF drugs, and potentially in other ophthalmic diseases and conditions with unmet need;
- the scope, progress, costs and results of our Zimura clinical programs, including our Zimura Phase 2/3 GA Study and our Zimura Phase 2a Wet AMD Study, as well as any additional clinical trials (including a potential second Phase 3 trial for GA) required by regulatory authorities for us to seek marketing approval for Zimura in any indication;
- the costs and timing of manufacturing validation activities associated with Fovista;
- the costs and timing of process development and manufacturing scale-up and validation activities associated with Zimura;
- the costs, timing and outcome of regulatory reviews of Fovista and Zimura;
- the timing, scope and cost of commercialization activities for Fovista or Zimura if we receive, or expect to receive, marketing approval for either product candidate, including the costs and timing of expanding our outsourced manufacturing activities, including activities to build up our commercial drug supply and to enable and qualify second source suppliers, expanding our commercial operations and establishing product sales, marketing and distribution capabilities;
- subject to receipt of marketing approval, net revenue received from commercial sales of Fovista or Zimura, after milestone payments and royalty payments that we will be obligated to make;
- the scope, progress and results of our preclinical studies, formulation development and clinical development plans for tivozanib;
- the scope, progress, results and costs of preclinical development and/or clinical trials for any other product candidates that we may develop;
- our ability to establish collaborations on favorable terms, if at all;
- the extent to which we in-license or acquire rights to, and develop, complimentary products, product candidates or technologies, including drug delivery technologies; and
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending intellectual property-related claims.

We do not have any committed external source of funds other than the Novartis Agreement. The remaining potential milestone payments under the Novartis Agreement are subject to our achievement of specified clinical, regulatory and commercial events related to Fovista, none of which can be assured.

Our future commercial revenues, if any, will be derived from sales of Fovista, Zimura or any other products that we are able to successfully develop, which, depending on the product, may not be available for several years, if at all. In addition, if approved, Fovista or Zimura or any product that we acquire or in-license may not achieve commercial success. If that is the case, we may need to obtain substantial additional financing to achieve our business objectives. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

Adequate additional financing may not be available to us on acceptable terms, or at all. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts.

Until such time, if ever, as 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 will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect their rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Our pledge of assets, including intellectual property rights, as collateral to secure our obligations under the Novo Agreement may limit our ability to obtain debt financing. 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 or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Licensing and Commercialization Agreement with Novartis Pharma AG

In May 2014, we entered into a licensing and commercialization agreement with Novartis Pharma AG, which we refer to as the Novartis Agreement. Under the Novartis Agreement, we granted Novartis exclusive rights under specified patent rights, know-how and trademarks controlled by us to manufacture, from bulk API supplied by us, standalone Fovista products and products combining Fovista with an anti-VEGF drug to which Novartis has rights in a co-formulated product, for the treatment, prevention, cure or control of any human disease, disorder or condition of the eye, and to develop and commercialize those licensed products in all countries outside of the United States, which we refer to as the Novartis Territory. We have agreed to use commercially reasonable efforts to complete our ongoing pivotal Phase 3 clinical program for Fovista and Novartis has agreed to use commercially reasonable efforts to develop a standalone Fovista product and a co-formulated product containing Fovista and an anti-VEGF drug to which Novartis has rights, as well as a pre-filled syringe presentation of such products and to use commercially reasonable efforts, subject to obtaining marketing approval, to commercialize licensed products in the Novartis Territory in accordance with agreed development and marketing plans. Novartis has also granted us options, subject to specified limitations, and to the extent such rights are controlled by Novartis, to obtain exclusive rights from Novartis to develop and commercialize in the United States the co-formulated and pre-filled syringe products developed by Novartis. We and Novartis have each granted the other options, subject to specified limitations, to obtain access to study data from certain clinical trials of licensed products that we or Novartis may conduct, including for use by the other in regulatory filings in its territory. We have agreed to exclusively supply Novartis, and Novartis has agreed to exclusively purchase from us, its

clinical and commercial requirements for the bulk API for Fovista for use in-licensed products in the Novartis Territory. We have agreed not to commercialize any product comprising Fovista or any other anti-PDGF product in the ophthalmic field in the Novartis Territory.

Novartis paid us a $200.0 million upfront fee upon execution of the Novartis Agreement. Under the terms of the Novartis Agreement, Novartis is also obligated to pay us up to an aggregate of $130.0 million if we achieve specified patient enrollment-based milestones for our ongoing pivotal Phase 3 clinical program for Fovista, $50.0 million of which we received in October 2014 and $50.0 million of which we received in April 2015, and up to an aggregate of an additional $300.0 million upon achievement of specified regulatory milestones, including marketing approval and reimbursement approval in certain countries in the Novartis Territory. In addition, Novartis has agreed to pay us up to an aggregate of an additional $400.0 million if Novartis achieves specified sales milestones in the Novartis Territory. Novartis is also obligated to pay us royalties with respect to standalone Fovista products and combination Fovista products that Novartis successfully commercializes. We will receive royalties at a mid-thirties percentage of net sales of standalone Fovista products and a royalty of approximately equal value for sales of combination Fovista products. Such royalties are subject to customary deductions, credits, and reductions for lack of patent coverage or market exclusivity. Novartis's obligation to pay such royalties will continue on a licensed product-by-licensed product and country-by-country basis until Novartis's last actual commercial sale of such licensed product in such country. We will continue to be responsible for royalties we owe to third parties on all sales of Fovista products.

Novartis has agreed to pay our manufacturing costs plus a specified percentage margin for commercial supplies of the bulk API for Fovista that we supply to Novartis. If we or Novartis exercise our or its respective rights to obtain access to study data from clinical trials conducted by the other party, the party exercising the option will be obligated to pay the other party's associated past development costs and share equally with such other party any future associated development costs. If we exercise our option to obtain Novartis-controlled rights to develop, manufacture and commercialize any co-formulated Fovista product in the United States, we will be obligated to pay a specified percentage of Novartis's associated past development costs and share with Novartis any future associated development costs. Novartis and we will also need to negotiate and agree on financial and other terms that would apply to such rights. If we exercise our option to obtain Novartis-controlled rights to develop and commercialize a pre-filled syringe product in the United States, we will be obligated to either enter into a supply agreement with Novartis under which we will pay Novartis its manufacturing cost plus a specified percentage margin for supplies of Fovista products in pre-filled syringes that Novartis supplies to us, or obtain supplies of products in pre-filled syringes from a third party manufacturer and pay Novartis a low single-digit percentage of our net sales of such products.

We have retained control over the design and execution of our pivotal Phase 3 clinical program for Fovista and remain responsible for funding the costs of that program, subject to Novartis's responsibility to provide Lucentis, an anti-VEGF drug to which Novartis has rights in the Novartis Territory, for use in our ongoing Phase 3 clinical trials and ongoing Phase 2 trials and future Phase 2 and Phase 3 trials in the Novartis Territory following the effective date of the Novartis Agreement. Novartis will have control over, and will be responsible for the costs of, all other clinical trials that may be required to obtain marketing approvals in the Novartis Territory for licensed products under the agreement. Novartis is also responsible for costs associated with co-formulation development, pre-filled syringe development and other development costs in the Novartis Territory, but excluding regulatory filing fees in the European Union for the standalone Fovista product, for which we will be responsible.

The Novartis Agreement, unless earlier terminated by Novartis or us, will expire upon the expiration of Novartis's obligation to pay us royalties on net sales of licensed products. Novartis and we each may terminate the Novartis Agreement if the other party materially breaches the agreement and does not cure such breach within a specified cure period, if the other party experiences any specified insolvency event, if the other party challenges or assists a third party in challenging the validity or enforceability of certain patent rights controlled by the terminating party, or if the parties are prevented in any manner that materially adversely affects the progression of the development or commercialization of licensed products for a specified period as a result of specified governmental actions. Novartis may terminate the Novartis Agreement at any time without cause, or within a specified period after a change in control of us, as defined in the Novartis Agreement, or for specified safety reasons, effective at the end of a specified period following Novartis's written notice to us of Novartis's election to terminate the agreement. We may also terminate the agreement if Novartis determines to seek marketing approval of an alternative anti-PDGF product in the Novartis Territory as more fully described below. If we elect to terminate the Novartis Agreement because specified governmental actions prevent the parties from materially progressing the development or commercialization of licensed products as described above, we will be required to pay a substantial termination fee. Following any termination, all rights to Fovista that we granted to Novartis, including, without limitation, the right to commercialize standalone Fovista products in the Novartis Territory, will revert to us, Novartis will perform specified activities in connection with transitioning to us the rights and responsibilities for the continued development, manufacture and commercialization of the standalone Fovista product for countries in the Novartis Territory, and the parties will cooperate on an orderly wind down of development and commercialization activities for other licensed products in the Novartis Territory.

Novartis has agreed to specified limitations on its ability to in-license, acquire or commercialize any anti-PDGF product that does not contain Fovista, which we refer to as an Alternative Anti-PDGF Product, in the Novartis Territory and, to the extent Novartis develops, in-licenses or acquires such a product, to make such product available to us in the United States under specified option conditions. If we exercise our option, we will be obligated to make certain payments to Novartis, including specified milestone and royalty payments. The amounts of such payments will vary based on the product's stage of clinical development at the time we exercise our option, whether the product is a standalone or combination product and whether Novartis exercises an option to co-promote such product in the United States. If Novartis determines to seek marketing approval of an Alternative Anti-PDGF Product in the Novartis Territory, we will, subject to specified limitations, have the option to terminate the Novartis Agreement, convert Novartis's exclusive licenses into non-exclusive licenses, or elect to receive a royalty on sales of such product by Novartis. If we elect to terminate the Novartis Agreement, Novartis will, subject to specified limitations, be required to pay to us, certain payments based on achievement, with respect to such product, of the milestones that would have otherwise applied to licensed products under the Novartis Agreement.

The agreement contains standstill provisions pursuant to which Novartis agrees to certain restrictions relating to our voting securities until marketing approval for a standalone Fovista product is granted in either the United States or the European Union. The agreement contains indemnification and dispute resolution provisions that are customary for agreements of its kind.

Manufacturing and Supply Agreements with Agilent Technologies, Inc.

Clinical API Supply Agreement

In May 2014, we entered into a Clinical Manufacturing and Supply Agreement with Agilent Technologies, Inc., or Agilent, pursuant to which Agilent has agreed to manufacture and supply to us, and we have agreed to purchase from Agilent, a specified percentage of our clinical requirements in specified jurisdictions of Fovista API. The clinical supply agreement has an initial five-year term, which

is subject to automatic renewal absent termination by either party in accordance with the terms of the clinical supply agreement. The clinical supply agreement provides for pricing for Fovista API structured on a tiered basis with the price reduced as the volume ordered increases. We may terminate the clinical supply agreement or any statement of work thereunder upon 12 months prior written notice to Agilent and Agilent may terminate the clinical supply agreement if we do not, over a specified period, purchase and take delivery from Agilent of a specified minimum quantity of API for Fovista. Each party also has the right to terminate the clinical supply agreement for other customary reasons such as material breach and bankruptcy. The clinical supply agreement contains provisions relating to compliance by Agilent with current Good Manufacturing Practices, cooperation by Agilent in connection with marketing applications for Fovista, indemnification, confidentiality, dispute resolution and other customary matters for an agreement of this kind.

Commercial API Supply Agreement

In September 2015, we entered into a Commercial Manufacturing and Supply Agreement with Agilent, pursuant to which Agilent has agreed to manufacture and supply to us, and we have agreed to purchase from Agilent, a specified percentage of our commercial requirements in all jurisdictions of Fovista API. The commercial supply agreement has an initial term that runs for seven years from the date of our first commercial sale of Fovista, and which is subject to one two-year automatic renewal period, absent termination by either party in accordance with the terms of the commercial supply agreement. The commercial supply agreement provides for pricing for Fovista API structured on a tiered basis, with the price reduced as the volume of Fovista API ordered increases. We may cancel any purchase order under the commercial supply agreement at any time, subject to the payment of specified cancellation fees. We may terminate the commercial supply agreement with no financial penalty in the event that we cannot commercialize Fovista due to regulatory or other medical, scientific or legal reasons. Agilent may terminate the commercial supply agreement in the event that we do not, over a specified period, purchase and take delivery from Agilent of a specified minimum quantity of Fovista API. Each party also has the right to terminate the commercial supply agreement for other customary reasons such as material breach and bankruptcy. The commercial supply agreement contains provisions relating to compliance by Agilent with current Good Manufacturing Practices, cooperation by Agilent in connection with marketing applications for Fovista, indemnification, confidentiality, dispute resolution and other customary matters for an agreement of this kind.

Financing Agreement with Novo A/S

In May 2013, we entered into the Novo Agreement, pursuant to which we had the ability to obtain financing in three tranches in an amount of up to $125.0 million in return for the sale to Novo A/S of aggregate royalties of a mid-single-digit percentage on worldwide sales of Fovista, with the royalty percentage determined by the amount of funding provided by Novo A/S. The three tranches of financing, in which Novo A/S purchased three low single-digit royalty interests and paid us $125.0 million in the aggregate, closed in May 2013, January 2014 and November 2014.

The royalty payment period begins on the commercial launch of Fovista and ends, on a country-by-country basis, on the latest to occur of the twelfth anniversary of the commercial launch of Fovista, the expiration of certain patent rights covering Fovista, and the expiration of regulatory exclusivity for Fovista, in each applicable country. Royalty payments will be payable quarterly in arrears during the royalty period. Our obligations under the Novo Agreement may also apply to certain other anti-platelet derived growth factor, or anti-PDGF, products we may develop.

We used a portion of the proceeds that we initially received under the Novo Agreement to repay in full an aggregate of $14.4 million of outstanding principal, interest and fees under our venture debt facility and are using the remaining proceeds primarily to support clinical development and regulatory activities for Fovista and for general corporate expenses.

The Novo Agreement requires the establishment by Novo A/S and us of a joint oversight committee in relation to the development of Fovista in the event that Novo A/S does not continue to have a representative on our board of directors. The Novo Agreement also contains customary representations and warranties, as well as certain covenants relating to the operation of our business, including covenants requiring us to use commercially reasonable efforts to continue our development of Fovista, to file, prosecute and maintain certain patent rights and, in our reasonable judgment, to pursue claims of infringement of our intellectual property rights. The Novo Agreement also places certain restrictions on our business, including restrictions on our ability to grant security interests in our intellectual property to third parties, to sell, transfer or out-license intellectual property, or to grant others rights to receive royalties on sales of Fovista and certain other products. We reimbursed Novo A/S for specified legal and other expenses and are required to provide Novo A/S with certain continuing information rights. We have agreed to indemnify Novo A/S and its representatives with respect to certain matters, including with respect to any third-party infringement or product liability claims relating to our products. Our obligations under the Novo agreement are secured by a lien on certain of our intellectual property and other rights related to Fovista and other anti-PDGF products we may develop.

Contractual Obligations and Commitments

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

	Payments Due by Period				
	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
			(in thousands)		
Operating Leases(1)	$ 11,664	$ 2,133	$ 7,852	$ 1,679	$ —
Purchase Obligations(2)	18,199	18,199	—	—	—
Total(3)	$ 29,863	$ 20,332	$ 7,852	$ 1,679	$ —

(1) Operating lease obligations reflect our obligation to make payments in connection with leases for our office space.

(2) Purchase obligations represent our commitments under purchase orders, including those made under our clinical and commercial supply agreements with Agilent.

(3) This table does not include (a) any milestone payments which may become payable to third parties under license agreements as the timing and likelihood of such payments are not known with certainty, (b) any royalty payments to third parties as the amounts, timing and likelihood of such payments are not known, (c) anticipated expenditures under supply agreements for periods for which we are not yet bound under binding purchase orders, (d) contracts that are entered into in the ordinary course of business that are not material in the aggregate in any period presented above and (e) our royalty purchase liability of $125.0 million as of December 31, 2015, due to the fact that the royalty payment period, if any, is not known.

In addition to the amounts set forth in the table above, we may be required, under various agreements, to pay royalties and make milestone payments. In addition to the Novo Agreement, these agreements include the following:

- Under our divestiture agreement with OSI (Eyetech), Inc., which agreement is now held by OSI Pharmaceuticals, LLC., or OSI Pharmaceuticals, a subsidiary of Astellas US, LLC, for rights to particular anti-PDGF aptamers, including Fovista, we are obligated to pay to OSI Pharmaceuticals future one-time payments of $12.0 million in the aggregate upon marketing approval in the United States and the European Union of a covered anti-PDGF product. We

also are obligated to pay to OSI Pharmaceuticals a royalty at a low single-digit percentage of net sales of any covered anti-PDGF product we successfully commercialize.

- Under a license agreement with Archemix Corp., or Archemix, with respect to pharmaceutical products comprised of or derived from any anti-PDGF aptamer, we are obligated to make future payments to Archemix of up to an aggregate of $14.0 million if we achieve specified clinical and regulatory milestones with respect to Fovista, up to an aggregate of $3.0 million if we achieve specified commercial milestones with respect to Fovista and, for each other anti-PDGF aptamer product that we may develop under the agreement, up to an aggregate of approximately $18.8 million if we achieve specified clinical and regulatory milestones and up to an aggregate of $3.0 million if we achieve specified commercial milestones. No royalties are payable to Archemix under this license agreement.

- Under a license agreement with Archemix with respect to pharmaceutical products comprised of or derived from anti-C5 aptamers, for each anti-C5 aptamer product that we may develop under the agreement, including Zimura, we are obligated to make future payments to Archemix of up to an aggregate of $57.5 million if we achieve specified development, clinical and regulatory milestones, and up to an aggregate of $22.5 million if we achieve specified commercial milestones. We are also obligated to pay Archemix a double-digit percentage of specified non-royalty payments we may receive from any sublicensee of our rights under this license agreement. No royalties are payable to Archemix under this license agreement.

- Under a license, manufacturing and supply agreement with Nektar Therapeutics, or Nektar, for specified pegylation reagents used to manufacture Fovista, we are obligated to make future payments to Nektar of up to an aggregate of $6.5 million if we achieve specified clinical and regulatory milestones, and an additional payment of $3.0 million if we achieve a specified commercial milestone with respect to Fovista. We are obligated to pay Nektar tiered royalties at low to mid-single-digit percentages of net sales of any licensed product we successfully commercialize, with the royalty percentage determined by our level of licensed product sales, the extent of patent coverage for the licensed product and whether we have granted a third party commercialization rights to the licensed product. In June 2014, we paid Nektar $19.8 million in connection with our entry into the Novartis Agreement.

- Under an option agreement with AVEO relating to tivozanib, we will be obligated to make milestone payments of $2.0 million upon the submission of an Investigational New Drug application to the FDA and $6.0 million upon the earlier of demonstration of proof of concept in humans and a specified date in January 2017, subject to any exercise by us of our right to terminate the option agreement.

We also have letter agreements with certain employees that require the funding of a specific level of payments, if certain events, such as a termination of employment in connection with a change in control or termination of employment by the employee for good reason or by us without cause, occur. For a description of these obligations, see our definitive proxy statement on Schedule 14A for our 2015 annual meeting of stockholders, as filed with the SEC on April 30, 2015.

In addition, in the course of normal business operations, we have agreements with contract service providers to assist in the performance of our research and development and manufacturing activities. Expenditures to CROs and CMOs represent significant costs in clinical development. Subject to required notice periods and our obligations under binding purchase orders, we can elect to discontinue the work under these agreements at any time. We could also enter into additional collaborative research, contract research, manufacturing, and supplier agreements in the future, which may require upfront payments and even long-term commitments of cash.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under Securities and Exchange Commission rules.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risk related to changes in interest rates. We had cash, cash equivalents and marketable securities of $391.9 million as of December 31, 2015, consisting of cash, investments in money market funds certain investment-grade corporate debt securities, and direct investment in U.S. Treasury securities. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because a significant portion of our investments are in short-term securities. Our marketable securities are subject to interest rate risk and will fall in value if market interest rates increase. Due to the low risk profile of our investments, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our portfolio.

We contract with CROs and CMOs globally. We may be subject to fluctuations in foreign currency rates in connection with certain of these agreements. Transactions denominated in currencies other than the U.S. dollar are recorded based on exchange rates at the time such transactions arise. As of December 31, 2015, substantially all of our total liabilities were denominated in the U.S. dollar.

Item 8. Financial Statements and Supplementary Data

Our financial statements, together with the report of our independent registered public accounting firm, appear on pages F-1 through F-33 of this Annual Report on Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2015. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on the evaluation of our disclosure controls and procedures as of December 31, 2015, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended (the Exchange Act). Our internal control over financial reporting is a process designed by, or under the supervision of our Chief Executive Officer and our Chief Financial Officer, and effected by the Company's board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2015. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in the original *Internal Control—Integrated Framework* updated in 2013. Based on that assessment, our management concluded that, as of December 31, 2015, our internal control over financial reporting was effective.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2015, has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
Ophthotech Corporation

We have audited Ophthotech Corporation's internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Ophthotech Corporation's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Ophthotech Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of Ophthotech Corporation as of December 31, 2015 and 2014, and the related statements of operations, comprehensive loss, stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2015 of Ophthotech Corporation and our report dated February 26, 2016 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
MetroPark, New Jersey
February 26, 2016

Changes in Internal Control over Financial Reporting

As discussed in Item 9A in our Annual Report on Form 10-K/A for the year ended December 31, 2014, filed with the Securities and Exchange Commission on July 28, 2015, in July 2015, our management identified a material weakness in our internal control over financial reporting as of December 31, 2014, which material weakness was unchanged as of March 31, 2015, and remained unchanged as of June 30, 2015. During the three months ended September 30, 2015, we took the following steps to remediate the identified material weakness: we added staffing within our finance department and engaged a nationally recognized accounting firm, in each case, with technical expertise in the area of tax accounting and financial reporting. Our management has concluded that the identified material weakness in internal control over financial reporting was fully remediated as of December 31, 2015. Other than the remediation steps described above, no change in our internal control over financial reporting (as defined in Rules 13a-15(d) and 15d-15(d) under the Exchange Act) occurred during the three months ended December 31, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

On February 23, 2016, our Board of Directors, following approval and recommendation from the Compensation Committee of our Board of Directors, approved an arrangement providing Glenn P. Sblendorio, who has agreed to serve as our Executive Vice President, Chief Operating Officer and Chief Financial Officer, with access to a corporate apartment in New York, New York, near our corporate headquarters, for his personal use beginning on April 1, 2016. The rental expense for the apartment is expected to be approximately $9,455 per month.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Directors and Executive Officers

The information required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

Compliance with Section 16(a) of the Exchange Act

The information required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

Code of Ethics

We have adopted a code of business conduct and ethics that applies to our directors and officers (including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions) as well as our other employees. A copy of our code of business conduct and ethics is available on our website. We intend to post on our website all disclosures that are required by applicable law, the rules of the Securities and Exchange Commission or the NASDAQ Global Market concerning any amendment to, or waiver of, our code of business conduct and ethics.

Director Nominees

The information required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

Audit Committee

We have separately designated a standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. Additional information regarding the Audit Committee that is required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

Audit Committee Financial Expert

Our board of directors has determined that Axel Bolte is an "audit committee financial expert" as defined by Item 407(d)(5) of Regulation S-K of the Exchange Act and Mr. Bolte and the other members of our Audit Committee are "independent" under the rules of the NASDAQ Global Market.

Item 11. Executive Compensation

The information required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

Item 14. Principal Accountant Fees and Services

The information required by this item will be set forth in our Proxy Statement for the 2016 Annual Meeting of Shareholders and is incorporated in this Annual Report on Form 10-K by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

The following financial statements are filed as part of this Annual Report on Form 10-K:

No financial statement schedules have been filed as part of this Annual Report on Form 10-K because they are not applicable, not required or because the information is otherwise included in our financial statements or notes thereto.

The exhibits filed as part of this Annual Report on Form 10-K are set forth on the Exhibit Index immediately following our financial statements. The Exhibit Index is incorporated herein by reference.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 26, 2016

OPHTHOTECH CORPORATION

By: /s/ DAVID R. GUYER

David R. Guyer, M.D.
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1934, this report has been signed by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ DAVID R. GUYER David R. Guyer, M.D.	Chief Executive Officer and Chairman of the Board of Directors (principal executive officer)	February 26, 2016
/s/ SAMIR C. PATEL Samir C. Patel, M.D.	President and Vice Chairman of the Board of Directors	February 26, 2016
/s/ MICHAEL G. ATIEH Michael G. Atieh	Chief Financial and Business Officer (principal financial and accounting officer)	February 26, 2016
/s/ AXEL BOLTE Axel Bolte	Director	February 26, 2016
/s/ THOMAS DYRBERG Thomas Dyrberg, M.D., D.M.Sc.	Director	February 26, 2016
/s/ NICHOLAS GALAKATOS Nicholas Galakatos, Ph.D.	Director	February 26, 2016
/s/ DAVID E. REDLICK David E. Redlick	Director	February 26, 2016
/s/ MICHAEL ROSS Michael Ross, Ph.D.	Director	February 26, 2016
/s/ GLENN P. SBLENDORIO Glenn P. Sblendorio	Director	February 26, 2016

OPHTHOTECH CORPORATION

INDEX TO FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
Ophthotech Corporation

We have audited the accompanying balance sheets of Ophthotech Corporation (the Company) as of December 31, 2015 and 2014, and the related statements of operations, comprehensive loss, stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Ophthotech Corporation at December 31, 2015 and 2014, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, in conformity with US generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Ophthotech Corporation's internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 26, 2016 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
MetroPark, New Jersey
February 26, 2016

Ophthotech Corporation

Balance Sheets

(in thousands, except share and per share data)

	December 31, 2015	December 31, 2014
Assets		
Current assets		
Cash and cash equivalents	$ 221,861	$ 39,814
Available for sale securities	74,731	423,746
Due from Novartis Pharma AG	4,389	960
Prepaid expenses and other current assets	5,504	8,812
Total current assets	306,485	473,332
Available for sale securities	95,298	—
Property and equipment, net	3,466	1,555
Deferred tax assets	23,113	4,517
Other assets	489	382
Total assets	$ 428,851	$ 479,786
Liabilities and Stockholders' Equity		
Current liabilities		
Accrued research and development expenses	$ 18,820	$ 7,918
Accounts payable and accrued expenses	12,018	8,707
Deferred revenue	6,667	3,206
Total current liabilities	37,505	19,831
Deferred revenue, long-term	206,399	206,418
Royalty purchase liability	125,000	125,000
Total liabilities	368,904	351,249
Stockholders' equity		
Preferred stock—$0.001 par value, 5,000,000 shares authorized, no shares issued or outstanding	$ —	$ —
Common stock—$0.001 par value, 200,000,000 shares authorized, 35,196,567 and 33,994,520 shares issued and outstanding at December 31, 2015 and December 31, 2014, respectively	35	34
Additional paid-in capital	465,924	428,390
Accumulated deficit	(405,539)	(299,822)
Accumulated other comprehensive loss	(473)	(65)
Total stockholders' equity	59,947	128,537
Total liabilities and stockholders' equity	$ 428,851	$ 479,786

The accompanying notes are an integral part of these financial statements.

Ophthotech Corporation

Statements of Operations

(in thousands, except per share data)

	Years ended December 31,		
	2015	2014	2013
Collaboration revenue	$ 51,505	$ 41,259	$ —
Operating expenses:			
Research and development	131,012	88,385	33,215
General and administrative	44,021	33,387	14,210
Total operating expenses	175,033	121,772	47,425
Loss from operations	(123,528)	(80,513)	(47,425)
Interest income (expense)	971	217	(1,454)
Loss on extinguishment of debt	—	—	(1,091)
Other income (loss)	53	—	(1,175)
Loss before income tax provision	(122,504)	(80,296)	(51,145)
Income tax (benefit) provision	(16,787)	36,476	—
Net loss	(105,717)	(116,772)	(51,145)
Add: accretion of preferred stock dividends	—	—	(5,891)
Net loss attributable to common stockholders	$ (105,717)	$ (116,772)	$ (57,036)
Net loss per common share:			
Basic and diluted	$ (3.06)	$ (3.51)	$ (6.34)
Weighted average common shares outstanding:			
Basic and diluted	34,580	33,258	9,003

The accompanying notes are an integral part of these financial statements.

Ophthotech Corporation

Statements of Comprehensive Loss

(in thousands)

	Years Ended December 31,		
	2015	2014	2013
Net loss	$ (105,717)	$ (116,772)	$ (51,145)
Other comprehensive loss:			
Unrealized loss on available for sale securities, net of tax	(408)	(65)	—
Other comprehensive loss	(408)	(65)	—
Comprehensive loss	$ (106,125)	$ (116,837)	$ (51,145)

The accompanying notes are an integral part of these financial statements.

Ophthotech Corporation

Statements of Stockholders' Equity (Deficit)

(in thousands)

	Junior Series A Preferred Stock		Common Stock		Additional paid-in capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total
	Shares	Amount	Shares	Amount				
Balance at December 31, 2012	3,000	$ 3,000	1,470	$ 1	$ —	$ (126,471)	$ —	$ (123,470)
Issuance of common stock upon conversion of Series A, A-1, B, B-1, and C preferred stock	—	—	21,038	21	174,310	—	—	174,331
Issuance of common stock from initial public offering, net	—	—	8,740	9	175,546	—	—	175,555
Issuance of common stock upon conversion of Junior Series A Preferred Stock	(3,000)	(3,000)	—	—	—	—	—	(3,000)
Reclassification of warrant liability	—	—	—	—	2,179	—	—	2,179
Reclassification of preferred stock issuance costs	—	—	—	—	(1,804)	—	—	(1,804)
Issuance of common stock under employee stock compensation plans and warrants	—	—	165	—	94	—	—	94
Share-based compensation	—	—	—	—	2,871	—	—	2,871
Preferred Stock dividends	—	—	—	—	(457)	(5,434)	—	(5,891)
Net loss	—	—	—	—	—	(51,145)	—	(51,145)
Balance at December 31, 2013	—	$ —	31,413	$ 31	$ 352,739	$ (183,050)	$ —	$ 169,720
Issuance of common stock under employee stock compensation plans and warrants	—	—	682	1	2,948	—	—	2,949
Issuance from follow-on public offering, net	—	—	1,900	2	55,407	—	—	55,409
Share-based compensation	—	—	—	—	13,040	—	—	13,040
Excess tax benefit from share-based compensation					4,256	—	—	4,256
Net loss	—	—	—	—	—	(116,772)	—	(116,772)
Unrealized loss on available for sale securities, net of tax	—	—	—	—	—	—	(65)	(65)
Balance at December 31, 2014	—	$ —	33,995	$ 34	$ 428,390	$ (299,822)	$ (65)	$ 128,537
Issuance of common stock under employee stock compensation plans and warrants	—	—	1,202	1	11,472	—	—	11,473
Share-based compensation	—	—	—	—	24,760	—	—	24,760
Excess tax benefit from share-based compensation	—	—	—	—	1,302	—	—	1,302
Net loss	—	—	—	—	—	(105,717)	—	(105,717)
Unrealized loss on available for sale securities, net of tax	—	—	—	—	—	—	(408)	(408)
Balance at December 31, 2015	—	$ —	35,197	$ 35	$ 465,924	$ (405,539)	$ (473)	$ 59,947

The accompanying notes are an integral part of these financial statements.

Ophthotech Corporation

Statements of Cash Flows

(in thousands)

	Years ended December 31,		
	2015	2014	2013
Operating Activities			
Net loss	$ (105,717)	$ (116,772)	$ (51,145)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities			
Depreciation	698	127	20
Amortization of debt issuance costs	—	—	88
Accretion of debt discount	—	—	87
Amortization of premium and discounts on investment securities	2,846	2,024	—
Gain on sale of marketable securities	(57)	—	—
Non-cash change in fair value of warrant liability	—	—	1,181
Loss on extinguishment of debt	—	—	1,091
Deferred income taxes	(17,341)	(214)	—
Share-based compensation	24,760	13,040	2,871
Excess tax benefits from share-based compensation	(1,302)	(4,256)	—
Changes in operating assets and liabilities:			
Due from Novartis Pharma AG	(3,429)	(960)	—
Prepaid expense and other current assets	3,308	(2,008)	(6,761)
Accrued interest receivable	155	280	—
Other assets	(107)	(127)	(96)
Accrued research and development expenses	10,902	5,433	1,472
Accounts payable and accrued expenses	3,311	4,897	2,417
Deferred revenue	3,442	209,624	—
Net cash (used in) provided by operating activities	(78,531)	111,088	(48,775)
Investing Activities			
Purchase of marketable securities	(411,565)	(597,762)	—
Sale of marketable securities	395,977	—	—
Maturities of marketable securities	266,000	171,600	—
Purchase of property and equipment	(2,615)	(1,655)	(5)
Proceeds from sale of assets	6	—	—
Net cash provided by (used in) investing activities	247,803	(427,817)	(5)
Financing Activities			
Payment of debt issuance costs	—	—	(43)
Proceeds from stock option/warrant exercises	11,473	2,949	94
Proceeds from follow-on public offering, net	—	55,409	—
Proceeds from initial public offering, net	—	—	175,555
Excess tax benefits from share-based compensation	1,302	4,256	—
Repayment of venture debt facility, net	—	—	(11,900)
Proceeds from issuance of preferred stock, net	—	—	49,699
Proceeds from royalty purchase agreement	—	83,333	41,667
Net cash provided by financing activities	12,775	145,947	255,072
Net change in cash and cash equivalents	182,047	(170,782)	206,292
Cash and cash equivalents			
Beginning of period	39,814	210,596	4,304
End of period	$ 221,861	$ 39,814	$ 210,596
Supplemental disclosure of cash paid			
Interest	$ —	$ —	$ 1,523
Income taxes, net of refunds received	$ 399	$ 40,159	$ —
Supplemental disclosures of non-cash information related to investing activities			
Change in unrealized loss on available for sale securities, net of tax	$ (408)	$ (65)	$ —
Supplemental disclosures of cash flow information			
Conversion of preferred stock to common stock upon completion of IPO	$ —	$ —	$ 174,310
Accreted dividends on Series A, Series A-1, Series of B, B-1 and Series C Preferred Stock	$ —	$ —	$ 5,891

The accompanying notes are an integral part of these financial statements.

OPHTHOTECH CORPORATION

Notes to Financial Statements

(tabular dollars and shares in thousands, except per share data)

1. Business

Description of Business and Organization

Ophthotech Corporation (the "Company" or "Ophthotech") was incorporated on January 5, 2007, in Delaware. The Company is a biopharmaceutical company specializing in the development of novel therapeutics to treat diseases of the back of the eye, with a focus on developing therapeutics for age-related macular degeneration, or AMD. The Company's most advanced product candidate is Fovista® (pegpleranib), which is an anti-platelet derived growth factor ("PDGF") aptamer that is in Phase 3 clinical development for use in combination with anti-vascular endothelial growth factor ("VEGF") drugs that represent the current standard of care for the treatment of wet AMD. The Company has completed one Phase 1 and one Phase 2b clinical trial of Fovista administered in combination with the anti-VEGF drug Lucentis® (ranibizumab), has completed patient enrollment for two Phase 3 clinical trials of Fovista administered in combination with Lucentis and expects to complete enrollment in a third Phase 3 clinical trial evaluating Fovista in combination with Eylea® (aflibercept) or Avastin® (bevacizumab) in 2016. The Company is also developing its product candidate Zimura® (avacincaptad pegol), an inhibitor of complement factor C5, for the treatment of patients with geographic atrophy ("GA"), a form of dry AMD, in combination with anti-VEGF drugs for the treatment of wet AMD, as well as for the treatment of polypoidal choroidal vasculopathy ("PCV"), a specific type of wet AMD, in patients who do not respond adequately to treatment with anti-VEGF monotherapy or for whom anti-VEGF monotherapy fails. The Company is also investigating the potential of an ophthalmic formulation for tivozanib, a small molecule VEGF tyrosine kinase inhibitor for which the Company has an option for a license.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") and include all adjustments necessary for the fair presentation of the Company's financial position for the periods presented.

Use of Estimates

The preparation of financial statements and related disclosures in conformity with GAAP requires management to make estimates and judgments that affect the amounts reported in the financial statements and accompanying notes. The Company bases its estimates and judgments on historical experience and on various other assumptions that it believes are reasonable under the circumstances. The amounts of assets and liabilities reported in the Company's Balance Sheets and the amount of expenses reported for each of the periods presented are affected by estimates and assumptions, which are used for, but not limited to, accounting for research and development costs, revenue recognition, accounting for share-based compensation and accounting for income taxes. Actual results could differ from those estimates.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

2. Summary of Significant Accounting Policies (Continued)

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of 90 days or less when purchased to be cash equivalents. The carrying amounts reported in the Balance Sheets for cash and cash equivalents are valued at cost, which approximates their fair value.

Available for Sale Securities

The Company considers securities with original maturities of greater than 90 days to be available for sale securities. Available for sale securities with original maturities of greater than one year are recorded as non-current assets. Available for sale securities are recorded at fair value and unrealized gains and losses are recorded within accumulated other comprehensive income (loss). The estimated fair value of the available for sale securities is determined based on quoted market prices or rates for similar instruments. In addition, the cost of debt securities in this category is adjusted for amortization of premium and accretion of discount to maturity. The Company evaluates securities with unrealized losses to determine whether such losses, if any, are other than temporary.

Revenue Recognition

Collaboration Revenue

Prior to 2014, the Company had not generated any revenue. In May 2014, the Company received an upfront payment of $200.0 million in connection with its licensing and commercialization agreement with Novartis Pharma AG, (the "Novartis Agreement"), which has not been recorded as revenue due to certain contingencies associated with the payment. In each of September 2014 and March 2015, the Company achieved a $50.0 million enrollment-based milestone, or $100.0 million in the aggregate, under the Novartis Agreement. The Company recognized revenue of approximately $51.5 million during the year ended December 31, 2015, the majority of which related to the $50.0 million milestone payment it achieved in March 2015. The balance of the milestone payment was recorded as deferred revenue. The Company uses the relative selling price method to allocate arrangement consideration to the Company's performance obligations under the Novartis Agreement. Below is a summary of the components of the Company's collaboration revenue for the years ended December 2015, 2014 and 2013:

	Years ended December 31,		
	2015	2014	2013
License revenue	$ 38,083	$ 38,373	$ —
Research and development activity revenue	8,378	2,000	—
API transfer revenue	5,020	883	—
Joint operating committee revenue	24	3	—
Total collaboration revenue	$ 51,505	$ 41,259	$ —

In the future, the Company may generate additional revenues from a combination of product sales and license fees, milestone payments, research and development activity-related payments, payments for manufactured material and royalties in connection with the Novartis Agreement. The terms of this

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

2. Summary of Significant Accounting Policies (Continued)

agreement and other potential collaboration or commercialization agreements the Company may enter into generally contain multiple elements, or deliverables, which may include (i) licenses, or options to obtain licenses, to certain of the Company's technology and products, (ii) research and development activities to be performed on behalf of the collaborative partner, and (iii) in certain cases, services in connection with the manufacturing of preclinical, clinical and commercial material. Payments to the Company under these arrangements typically include one or more of the following: non-refundable, upfront license fees; option exercise fees; funding of research and/or development efforts; milestone payments; payments for manufactured material; and royalties on future product sales.

When evaluating multiple element arrangements, the Company considers whether the deliverables under the arrangement represent separate units of accounting. This evaluation requires subjective determinations and requires management to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. In determining the units of accounting, management evaluates certain criteria, including whether the deliverables have standalone value, based on the relevant facts and circumstances for each arrangement. The consideration received is allocated among the separate units of accounting using the relative selling price method, and the applicable revenue recognition criteria are applied to each of the separate units.

The Company determines the estimated selling price for deliverables within each agreement using vendor-specific objective evidence ("VSOE") of selling price, if available, third-party evidence ("TPE") of selling price if VSOE is not available, or best estimate of selling price ("BESP") if neither VSOE nor TPE is available. Determining the best estimate of selling price for a deliverable requires significant judgment. The Company uses BESP to estimate the selling price for licenses to the Company's proprietary technology, since the Company often does not have VSOE or TPE of selling price for these deliverables. In those circumstances where the Company utilizes BESP to determine the estimated selling price of a license to the Company's proprietary technology, the Company considers market conditions as well as entity-specific factors, including those factors contemplated in negotiating the agreements as well as internally developed models that include assumptions related to the market opportunity, estimated development costs, probability of success and the time needed to commercialize a product candidate that is subject to the license. In validating the Company's BESP, the Company evaluates whether changes in the key assumptions used to determine the BESP will have a significant effect on the allocation of arrangement consideration among multiple deliverables.

When management believes the license to its intellectual property and products has stand-alone value, the Company generally recognizes revenue attributed to the license upon delivery. When management believes such a license does not have stand-alone value from the other deliverables to be provided in the arrangement, the Company generally recognizes revenue attributed to the license on a straight-line basis over the Company's contractual or estimated performance period, which is typically the term of the Company's research and development obligations. If management cannot reasonably estimate when the Company's performance obligation ends, then revenue is deferred until management can reasonably estimate when the performance obligation ends. The periods over which revenue should be recognized are subject to estimates by management and may change over the course of the research and development agreement. Such a change could have a material impact on the amount of revenue the Company records in future periods.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

2. Summary of Significant Accounting Policies (Continued)

At the inception of arrangements that include milestone payments, the Company evaluates whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone. This evaluation includes an assessment of whether (a) the consideration is commensurate with either (1) the entity's performance to achieve the milestone, or (2) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the entity's performance to achieve the milestone, (b) the consideration relates solely to past performance, and (c) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. The Company evaluates factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

The Company aggregates its milestones into three categories: (i) clinical and development milestones, (ii) regulatory milestones, and (iii) commercial milestones. Clinical and development milestones are typically achieved when a product candidate advances into a defined phase of clinical research or completes such phase or when a contractually specified clinical trial enrollment target is attained. Regulatory milestones are typically achieved upon acceptance of the submission of an application for marketing approval for a product candidate or upon approval to market the product candidate by the U.S. Food and Drug Administration (the "FDA") or other regulatory authorities. Commercial milestones are typically achieved when an approved pharmaceutical product reaches certain defined levels of net sales by the licensee, such as when a product first achieves global sales or annual sales of a specified amount.

Revenues from clinical and development and regulatory milestone payments, if the milestones are deemed substantive and the milestone payments are nonrefundable, are recognized upon successful accomplishment of the milestones. With regard to the Novartis Agreement, the Company has concluded that the clinical and development milestones and certain reimbursement milestones are not substantive and that the marketing approval milestones are substantive. Milestone payments received that are not considered substantive are included in the allocable arrangement consideration and are recognized as revenue in proportion to the relative-selling price allocation established at the inception of the arrangement. Revenues from commercial milestone payments are accounted for as royalties and are recorded as revenue upon achievement of the milestone, assuming all other revenue recognition criteria are met.

Concentration of Credit Risk

The Company's financial instruments that are exposed to concentration of credit risk consist primarily of cash and cash equivalents and available for sale securities. The Company maintains its cash in bank accounts, which generally exceed federally insured limits. The Company maintains its cash equivalents in U.S. Treasury securities with original maturities of 90 days or less and investments in money market funds.

The Company's available for sale securities are also invested in U.S. Treasury securities and investment-grade corporate debt securities. The Company believes it is not exposed to significant credit risk on its cash, cash equivalents and available for sale securities.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

2. Summary of Significant Accounting Policies (Continued)

Foreign Currency Translation

The Company considers the U.S. dollar to be its functional currency. Expenses denominated in foreign currencies are translated at the exchange rate on the date the expense is incurred. The effect of exchange rate fluctuations on translating foreign currency assets and liabilities into U.S. dollars is included in the Statements of Operations. Foreign exchange transaction gains and losses are included in the results of operations and are not material in the Company's financial statements.

Financial Instruments

Cash equivalents and available for sale securities are reflected in the accompanying financial statements at fair value. The carrying amount of accounts payable and accrued expenses, including accrued research and development expenses, approximates fair value due to the short-term nature of those instruments.

Property and Equipment

Property and equipment, which consists mainly of manufacturing and clinical equipment, furniture and fixtures, computers and other office equipment, and leasehold improvements, are carried at cost less accumulated depreciation. Depreciation is computed over the estimated useful lives of the respective assets, generally three to ten years, using the straight-line method.

Research and Development

Research and development expenses primarily consist of costs associated with the manufacturing, development and clinical testing of Fovista and Zimura as well as costs associated with the preclinical development of other product candidates and formulations. Research and development expenses consist of:

- external research and development expenses incurred under arrangements with third parties, such as contract research organizations ("CROs") and other vendors and contract manufacturing organizations ("CMOs") for the production of drug substance and drug product; and

- employee-related expenses, including salaries, benefits and share-based compensation expense.

Research and development expenses also include costs of acquired product licenses and related technology rights where there is no alternative future use, costs of prototypes used in research and development, consultant fees and amounts paid to collaborative partners.

All research and development expenses are charged to operations as incurred in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic, or ASC, 730, *Research and Development*. The Company accounts for non-refundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received, rather than when the payment is made.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

2. Summary of Significant Accounting Policies (Continued)

Income Taxes

The Company utilizes the liability method of accounting for deferred income taxes, as set forth in ASC 740-10, *Income Taxes—Overall*. Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities. The Company incurred U.S. federal net operating losses ("NOLs") in each year from its inception in 2007 through 2013 and utilized these NOLs in 2014. As such, all prior tax years since 2007 remain subject to potential tax examination as the utilization of NOLs from prior years opens the relevant year to potential audit.

Share-Based Compensation

The Company follows the provisions of ASC 718, *Compensation—Stock Compensation*, which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and non-employee directors, including employee stock options and restricted stock units ("RSUs"). Share-based compensation expense is based on the grant date fair value estimated in accordance with the provisions of ASC 718 and is generally recognized as an expense over the requisite service period, net of forfeitures. For grants containing performance-based vesting provisions, expense is recognized over the estimated achievement period.

Stock Options

The Company estimates the fair value of stock options granted to employees and non-employee directors on the date of grant using the Black-Scholes option-pricing model. Due to the lack of trading history, the Company's computation of stock-price volatility is based on the volatility rates of comparable publicly held companies over a period equal to the expected term of the options granted by the Company. The Company's computation of expected term is determined using the "simplified" method, which is the midpoint between the vesting date and the end of the contractual term. The Company believes that it does not have sufficient reliable exercise data in order to justify the use of a method other than the "simplified" method of estimating the expected exercise term of employee stock option grants. The Company utilizes a dividend yield of zero based on the fact that the Company has never paid cash dividends to stockholders and has no current intentions to pay cash dividends. The risk-free interest rate is based on the zero-coupon U.S. Treasury yield at the date of grant for a term equivalent to the expected term of the option.

For stock options granted as consideration for services rendered by consultants, the Company recognizes expense in accordance with the requirements of ASC 505-50, *Equity Based Payments to Non-Employees*. Consultant stock option grants are recorded as an expense over the vesting period of the underlying stock options. At the end of each financial reporting period prior to vesting, the value of these options, as calculated using the Black-Scholes option-pricing model, will be re-measured using the fair value of the Company's common stock and the non-cash expense recognized during the period will be adjusted accordingly. Since the fair value of options granted to consultants is subject to change in the future, the amount of the future expense will include fair value re-measurements until the stock options are fully vested.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

2. Summary of Significant Accounting Policies (Continued)

RSUs

The Company estimates the fair value of RSUs granted to employees using the closing market price of the Company's common stock on the date of grant.

Share-based compensation expense includes expenses related to stock options and RSUs granted to employees, non-employee directors and consultants, and has been reported in the Company's Statements of Operations as follows:

	Years ended December 31,		
	2015	2014	2013
Research and development	$ 16,608	$ 7,594	$ 2,062
General and administrative	8,152	5,446	809
Total	$ 24,760	$ 13,040	$ 2,871

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* ("ASU 2014-09"). ASU 2014-09 outlines a new, single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. This new revenue recognition model provides a five-step analysis in determining when and how revenue is recognized. The new model will require revenue recognition to depict the transfer of promised goods or services to customers in an amount that reflects the consideration a company expects to receive in exchange for those goods or services. ASU 2014-09 is effective for public entities for annual reporting periods beginning after December 15, 2016 and interim periods within those annual periods. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which provides a one-year deferral of the effective date for the new revenue standard. Public companies should now apply the guidance in ASU 2014-09 to annual reporting periods beginning after December 15, 2017 and interim periods within those annual periods. Earlier application is permitted only as of annual reporting periods beginning after December 15, 2016, including interim periods within that annual period. Companies may use either a full retrospective or a modified retrospective approach to adopt ASU 2014-09. The Company is currently assessing the impact that adopting this new accounting guidance will have on its financial statements and footnote disclosures.

In August 2014, the FASB issued ASU 2014-15, *Presentation of Financial Statements—Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, which defines management's responsibility to assess an entity's ability to continue as a going concern, and to provide related footnote disclosures if there is substantial doubt about its ability to continue as a going concern. The pronouncement is effective for annual reporting periods ending after December 15, 2016 with early adoption permitted. The adoption of this guidance is not expected to have a significant impact on the Company's financial statements.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

2. Summary of Significant Accounting Policies (Continued)

In November 2015, the FASB issued ASU 2015-17, *Income Taxes (Topic 740)*: *Balance Sheet Classification of Deferred Taxes*, which updated and simplified the presentation of deferred income taxes. Current GAAP requires an entity to separate deferred income tax assets and liabilities into current and non-current amounts in a classified statement of financial position. The requirement results in little or no benefit to users of financial statements because the classification does not generally align with the time period in which the recognized deferred tax amounts are expected to be recovered or settled. To simplify the presentation of deferred income taxes, the amendments in this update require that deferred tax assets and liabilities be classified as noncurrent in a classified statement of financial position. The current requirement that deferred tax assets and liabilities of a tax-paying component of an entity be offset and presented as a single amount is not affected by the amendments in this update. The amendments in this update are effective for financial statements issued for annual periods beginning after December 15, 2016 and interim periods within those annual periods. Earlier application is permitted as of the beginning of an interim or annual reporting period. The Company has elected to adopt this standard retrospectively, effective December 31, 2015. As a result of this adoption, the Company reclassified its deferred income tax asset, current as of December 31, 2014, to deferred income taxes to conform with current year presentation.

3. Capitalization

On September 30, 2013, the Company closed its initial public offering of 8,740,000 shares of common stock at a price of $22.00 per share of common stock. The net proceeds to the Company were $175.6 million, after deducting underwriters' discounts and commissions and other offering expenses. In connection with the closing of the IPO, all of the Company's shares of redeemable convertible preferred stock outstanding at the time of the offering were automatically converted into 21,038,477 shares of common stock.

On February 18, 2014, the Company closed a follow-on public offering of 2,628,571 shares of common stock at a public offering price of $31.50 per share of common stock. The Company sold 1,900,000 shares and 728,571 shares were sold by selling stockholders, including 342,857 shares sold by the selling stockholders upon the full exercise by the underwriters of their option to purchase additional shares in the follow-on public offering. The net proceeds to the Company were $55.4 million, after deducting underwriters' discounts and commissions and other offering expenses. The Company did not receive any proceeds from the sale of shares by the selling stockholders in the follow-on public offering.

4. Net Loss Per Common Share

Basic and diluted net loss per common share is determined by dividing net loss by the weighted average common shares outstanding during the period. For the periods where there is a net loss, stock options, RSUs and warrants have been excluded from the calculation of diluted net loss per common share because their effect would be anti-dilutive. Therefore, the weighted average common shares used

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Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

4. Net Loss Per Common Share (Continued)

to calculate both basic and diluted net loss per common share would be the same. The following table sets forth the computation of basic and diluted net loss per common share for the periods indicated:

	Years ended December 31,		
	2015	2014	2013
Basic and diluted net loss per common share calculation:			
Net loss	$ (105,717)	$ (116,772)	$ (51,145)
Accretion of preferred stock dividends	—	—	(5,891)
Net loss attributable to common stockholders	$ (105,717)	$ (116,772)	$ (57,036)
Weighted average common shares outstanding	34,580	33,258	9,003
Net loss per common share—basic and diluted	$ (3.06)	$ (3.51)	$ (6.34)

The following potentially dilutive securities have been excluded from the computations of diluted weighted average common shares outstanding for the periods presented, as they would be anti-dilutive:

	Years ended December 31,		
	2015	2014	2013
Options outstanding	3,009	3,680	2,708
Restricted stock units	288	37	—
Warrants	—	14	88
Total	3,297	3,731	2,796

5. Cash, Cash Equivalents and Available for Sale Securities

The Company considers all highly liquid investments purchased with original maturities of 90 days or less at the date of purchase to be cash equivalents. Cash and cash equivalents included cash of $5.5 million and $4.7 million at December 31, 2015 and 2014, respectively. Cash and cash equivalents at December 31, 2015 and December 31, 2014 also included $216.4 million and $35.1 million, respectively, of investments in money market funds and U.S. Treasury securities with original maturities of 90 days or less.

The Company considers securities with original maturities of greater than 90 days to be available for sale securities. The Company held available for sale securities with a fair value totaling $170.0 million and $423.7 million as of December 31, 2015 and 2014, respectively. These available for sale securities consisted of U.S. Treasury securities and investment-grade corporate debt securities. At December 31, 2015, the Company held available for sale securities of $74.7 million with maturities of less than one year, and $95.3 million with maturities of greater than one year. The Company evaluates securities with unrealized losses, if any, to determine whether such losses are other than temporary. The Company has determined that there were no other than temporary losses in fair value of its investments as of December 31, 2015. The Company classifies these securities as available for sale,

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

5. Cash, Cash Equivalents and Available for Sale Securities (Continued)

however, the Company does not currently intend to sell its investments and the Company believes it is more likely than not that the Company will recover the carrying value of these investments.

Available for sale securities, including carrying value and estimated fair values, are summarized as follows:

	As of December 31, 2015			
	Cost	Fair Value	Carrying Value	Unrealized Loss
U.S. Treasury securities	$ 130,507	$ 130,196	$ 130,196	$ (311)
Corporate debt securities	39,995	39,833	39,833	(162)
Total	$ 170,502	$ 170,029	$ 170,029	$ (473)

	As of December 31, 2014			
	Cost	Fair Value	Carrying Value	Unrealized Loss
U.S. Treasury securities	$ 423,859	$ 423,746	$ 423,746	$ (113)
Corporate debt securities	—	—	—	—
Total	$ 423,859	$ 423,746	$ 423,746	$ (113)

The Company's available for sale securities are reported at fair value on the Company's balance sheet. Unrealized gains (losses) are reported within accumulated other comprehensive income (loss) in the statements of comprehensive income (loss). The cost of securities sold and any realized gains/losses from the sale of available for sale securities are based on the specific identification method. The changes in accumulated other comprehensive income (loss) associated with the unrealized loss on available for sale securities for the years ended December 31, 2015 and December 31, 2014 were as follows:

	Years ended December 31,	
	2015	2014
Beginning balance	$ (65)	$ —
Current period changes in fair value before reclassifications, net of tax	(351)	(65)
Amounts reclassified from accumulated other comprehensive income, net of tax	(57)	—
Total other comprehensive income, net of tax	(408)	(65)
Ending balance	$ (473)	$ (65)

6. Licensing and Commercialization Agreement with Novartis Pharma AG

In May 2014, the Company entered into a licensing and commercialization agreement with Novartis Pharma AG ("Novartis", and such agreement, the "Novartis Agreement"). Under the Novartis

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Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

6. Licensing and Commercialization Agreement with Novartis Pharma AG (Continued)

Agreement, the Company granted Novartis exclusive rights under specified patent rights, know-how and trademarks controlled by the Company to manufacture, from bulk active pharmaceutical ingredient, or API, supplied by the Company, standalone Fovista products and products combining Fovista with an anti-VEGF drug to which Novartis has rights in a co-formulated product, for the treatment, prevention, cure or control of any human disease, disorder or condition of the eye, and to develop and commercialize those licensed products in all countries outside of the United States (the "Novartis Territory"). The Company has agreed to use commercially reasonable efforts to complete its ongoing pivotal Phase 3 clinical program for Fovista and Novartis has agreed to use commercially reasonable efforts to develop a standalone Fovista product and a co-formulated product containing Fovista and an anti-VEGF drug to which Novartis has rights, as well as a pre-filled syringe presentation of such products and to use commercially reasonable efforts, subject to obtaining marketing approval, to commercialize licensed products in the Novartis Territory in accordance with agreed development and marketing plans. Novartis has also granted the Company options, subject to specified limitations, and to the extent such rights are controlled by Novartis, to obtain exclusive rights from Novartis to develop and commercialize in the United States the co-formulated and pre-filled syringe products developed by Novartis. The Company and Novartis have each granted the other options, subject to specified limitations, to obtain access to study data from certain clinical trials of licensed products that the Company or Novartis may conduct, including for use by the other in regulatory filings in its territory. The Company has agreed to exclusively supply Novartis, and Novartis has agreed to exclusively purchase from the Company, its clinical and commercial requirements for the bulk API for Fovista for use in licensed products in the Novartis Territory. The Company has agreed not to commercialize any product comprising Fovista or any other anti-PDGF product in the ophthalmic field in the Novartis Territory.

Novartis paid the Company a $200.0 million upfront fee upon execution of the Novartis Agreement. Under the terms of the Novartis Agreement, Novartis is also obligated to pay the Company up to an aggregate of $130.0 million if the Company achieves specified patient enrollment-based milestones for its Phase 3 clinical program for Fovista, of which $50.0 million was achieved in September 2014 and received by the Company in October 2014 and $50.0 million was achieved in March 2015 and received in April 2015, and up to an aggregate of an additional $300.0 million upon achievement of specified regulatory milestones, including marketing approval and reimbursement approval in certain countries in the Novartis Territory. In addition, Novartis has agreed to pay the Company up to an aggregate of an additional $400.0 million if Novartis achieves specified sales milestones in the Novartis Territory. Novartis is also obligated to pay the Company royalties with respect to standalone Fovista products and combination Fovista products that Novartis successfully commercializes. The Company will receive royalties at a mid-thirties percentage of net sales of standalone Fovista products and a royalty of approximately equal value for sales of combination Fovista products. Such royalties are subject to customary deductions, credits, and reductions for lack of patent coverage or market exclusivity. Novartis's obligation to pay such royalties will continue on a licensed product-by-licensed product and country-by-country basis until Novartis's last actual commercial sale of such licensed product in such country. The Company will continue to be responsible for royalties it owes to third parties on sales of Fovista products.

Novartis has agreed to pay the Company's manufacturing costs plus a specified percentage margin for commercial supplies of the bulk API for Fovista that the Company supplies to Novartis. If the

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

6. Licensing and Commercialization Agreement with Novartis Pharma AG (Continued)

Company or Novartis exercises each of their respective rights to obtain access to study data from clinical trials conducted by the other party, the party exercising the option will be obligated to pay the other party's associated past development costs and share with such other party any future associated development costs. If the Company exercises its option to obtain Novartis-controlled rights to develop, manufacture and commercialize any co-formulated Fovista product in the United States, the Company will be obligated to pay a specified percentage of Novartis's associated past development costs and share with Novartis any future associated development costs. The Company and Novartis will also need to negotiate and agree on financial and other terms that would apply to such rights. If the Company exercises its option to obtain Novartis-controlled rights to develop and commercialize a pre-filled syringe product in the United States, the Company will be obligated to either enter into a supply agreement with Novartis under which the Company will pay Novartis its manufacturing cost plus a specified percentage margin for supplies of Fovista products in pre-filled syringes that Novartis supplies to the Company, or obtain supplies of products in pre-filled syringes from a third party manufacturer and pay Novartis a low single-digit percentage of the Company's net sales of such products.

The Company has retained control over the design and execution of its pivotal Phase 3 clinical program for Fovista and remains responsible for funding the costs of that program, subject to Novartis's responsibility to provide Lucentis, an anti-VEGF drug to which Novartis has rights in the Novartis Territory, for use in the Phase 3 trials already initiated and in other Phase 2 and Phase 3 clinical trials in the Novartis Territory following the effective date of the Novartis Agreement. Novartis will have control over, and will be responsible for the costs of, all other clinical trials that may be required to obtain marketing approvals in the Novartis Territory for licensed products under the agreement. Novartis is also responsible for costs associated with co-formulation development, pre-filled syringe development and other development costs in the Novartis Territory, excluding regulatory filing fees in the European Union for the standalone Fovista product, for which the Company will be responsible.

The Novartis Agreement, unless earlier terminated by the Company or Novartis, will expire upon the expiration of Novartis's obligation to pay the Company royalties on net sales of licensed products. The Company and Novartis each may terminate the Novartis Agreement if the other party materially breaches the agreement and does not cure such breach within a specified cure period, if the other party experiences any specified insolvency event, if the other party challenges or assists a third party in challenging the validity or enforceability of certain patent rights controlled by the terminating party, or if the parties are prevented in any manner that materially adversely affects the progression of the development or commercialization of licensed products for a specified period as a result of specified governmental actions. Novartis may terminate the Novartis Agreement at any time without cause, or within a specified period after a change in control of the Company, as defined in the Novartis Agreement, or for specified safety reasons, effective at the end of a specified period following Novartis's written notice to the Company of Novartis's election to terminate the agreement. The Company may also terminate the agreement if Novartis determines to seek marketing approval of an alternative anti-PDGF product in the Novartis Territory as more fully described below. If the Company elects to terminate the Novartis Agreement because specified governmental actions prevent the parties from materially progressing the development or commercialization of licensed products as described above, the Company will be required to pay a substantial termination fee. Following any termination, all rights to Fovista that the Company granted to Novartis, including, without limitation, the right to

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Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

6. Licensing and Commercialization Agreement with Novartis Pharma AG (Continued)

commercialize standalone Fovista products in the Novartis Territory, will revert to the Company, Novartis will perform specified activities in connection with transitioning to the Company the rights and responsibilities for the continued development, manufacture and commercialization of the standalone Fovista product for countries in the Novartis Territory, and the parties will cooperate on an orderly wind down of development and commercialization activities for other licensed products in the Novartis Territory.

Novartis has agreed to specified limitations on its ability to in-license, acquire or commercialize any anti-PDGF product that does not contain Fovista (an "Alternative Anti-PDGF Product") in the Novartis Territory and, to the extent Novartis develops, in-licenses or acquires such a product, to make such product available to the Company in the United States under specified option conditions. If the Company exercises its option, the Company will be obligated to make certain payments to Novartis, including specified milestone and royalty payments. The amounts of such payments will vary based on the product's stage of clinical development at the time the Company exercises its option, whether the product is a standalone or combination product and whether Novartis exercises an option to co-promote such product in the United States. If Novartis determines to seek marketing approval of an Alternative Anti-PDGF Product in the Novartis Territory, the Company will, subject to specified limitations, have the option to terminate the Novartis Agreement, convert Novartis's exclusive licenses into non-exclusive licenses, or elect to receive a royalty on sales of such product by Novartis. If the Company elects to terminate the Novartis Agreement, Novartis will, subject to specified limitations, be required to pay to the Company, certain payments based on achievement, with respect to such product, of the milestones that would have otherwise applied to licensed products under the Novartis Agreement.

Activities under the Novartis Agreement were evaluated under ASC 605-25, *Revenue Recognition—Multiple Element Arrangements* ("ASC 605-25") (as amended by ASU 2009-13, *Revenue Recognition* ("ASU 2009-13")) to determine if they represented a multiple element revenue arrangement. The Novartis Agreement includes the following deliverables: (1) an exclusive license to commercialize Fovista outside the United States (the "License Deliverable"); (2) the performance obligation to conduct research and development activities related to the Phase 3 Fovista clinical trials and certain Phase 2 trials for Fovista (the "R&D Activity Deliverable"); (3) the performance obligation to supply API to Novartis for development and manufacturing purposes (the "Manufacturing Deliverable") and (4) the Company's obligation to participate on the joint operating committee established under the terms of the Novartis Agreement and related subcommittees (the "Joint Operating Committee Deliverable"). Novartis has the right, subject to the certain approval rights of the Company, to sublicense the exclusive royalty-bearing license to commercialize Fovista in the Novartis Territory. The Company's obligation to provide access to clinical and regulatory information as part of the License Deliverable includes the obligation to provide access to all clinical data, regulatory filings, safety data and manufacturing data to Novartis which is necessary for commercialization of Fovista in the Novartis Territory. The R&D Activity Deliverable includes the right and responsibility for the Company to conduct the Phase 3 Fovista clinical program and other studies of Fovista in the Novartis Territory which are necessary or desirable for regulatory approval or commercialization of Fovista. The Manufacturing Deliverable includes the obligation for the Company to supply API to Novartis for development and commercial purposes, for which Novartis has agreed to pay the Company's manufacturing costs, plus a specified margin. The Joint Operating Committee Deliverable includes the

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Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

6. Licensing and Commercialization Agreement with Novartis Pharma AG (Continued)

obligation to participate in the Joint Operating Committee and related subcommittees at least through the first anniversary of regulatory approval in the European Union. All of these deliverables were deemed to have stand-alone value and to meet the criteria to be accounted for as separate units of accounting under ASC 605-25. Factors considered in this determination included, among other things, the subject of the licenses and the research and development and commercial capabilities of Novartis. Accordingly, each unit will be accounted for separately.

Options are considered substantive if, at the inception of the arrangement, the Company is at risk as to whether the collaboration partner will choose to exercise the option. Factors that the Company considers in evaluating whether an option is substantive include the overall objective of the arrangement, the benefit the collaborator might obtain from the arrangement without exercising the option, the cost to exercise the option and the likelihood that the option will be exercised. For arrangements under which an option is considered substantive, assuming the option is not priced at a significant and incremental discount, the Company does not consider the item underlying the option to be a deliverable at the inception of the arrangement and the associated option fees are not included in allocable arrangement consideration. Conversely, for arrangements under which an option is not considered substantive or if an option is priced at a significant and incremental discount, the Company would consider the item underlying the option to be a deliverable at the inception of the arrangement and a corresponding amount would be included in allocable arrangement consideration. All of the options included in the Novartis Agreement have been determined to be substantive, and none of the options are priced at a significant and incremental discount.

The Novartis Agreement provides that, if the Company elects to terminate the Novartis Agreement because specified governmental actions prevent the parties from materially progressing the development or commercialization of licensed products as described above, the Company will be required to pay a substantial termination fee. The Company has concluded that this termination provision constitutes a contingent event that was unknown at the inception of the agreement. As such, the Company has recorded the $200.0 million upfront payment in deferred revenue, long-term until such time that the contingency related to this termination provision is resolved. The Company believes the enrollment milestones and certain reimbursement milestones that may be achieved under the Novartis Agreement do not meet the recognition criteria within the definition of a milestone included in ASU 2010-17, *Revenue Recognition—Milestone Method*, and therefore, payments received for the achievement of the enrollment milestones in excess of the termination fee will be included in the allocable arrangement consideration and allocated to the deliverables based upon BESP using the relative selling price method.

The Company believes the marketing approval milestones that may be achieved under the Novartis Agreement are consistent with the definition of a milestone included in ASU 2010-17, *Revenue Recognition—Milestone Method*, and, accordingly, the Company will recognize payments related to the achievement of such milestones, if any, when the applicable milestone is achieved. Factors considered in this determination included scientific and regulatory risks that must be overcome to achieve each milestone, the level of effort and investment required to achieve each milestone, and the monetary value attributed to each milestone.

In each of September 2014 and March 2015, the Company achieved a $50.0 million enrollment-based milestone, or $100.0 million in aggregate, under the Novartis Agreement. The Company

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Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

6. Licensing and Commercialization Agreement with Novartis Pharma AG (Continued)

recognized revenue of approximately $51.5 million during the year ended December 31, 2015, the majority of which related to the $50.0 million milestone payment achieved in March 2015. The balance of the milestone payment was recorded as deferred revenue. The Company uses the relative selling price method to allocate arrangement consideration to the Company's performance obligations under the Novartis Agreement. Below is a summary of the components of the Company's collaboration revenue for the years ended December 31, 2015, 2014, and 2013:

	Years ended December 31,		
	2015	2014	2013
License revenue	$ 38,083	$ 38,373	$ —
Research and development activity revenue	8,378	2,000	—
API transfer revenue	5,020	883	—
Joint operating committee revenue	24	3	—
Total collaboration revenue	$ 51,505	$ 41,259	$ —

7. Financing Agreement with Novo A/S

In May 2013, the Company entered into a Purchase and Sale Agreement with Novo A/S, which is referred to as the Novo Agreement, pursuant to which the Company had the ability to obtain financing in three tranches in an amount of up to $125.0 million in return for the sale to Novo A/S of aggregate royalties of worldwide sales of (a) Fovista, (b) Fovista-Related Products, and (c) Other Products (each as defined in the Novo Agreement), calculated as low to mid-single digit percentages of net sales, with the royalty percentage determined by the amount of funding provided by Novo A/S.

The Novo Agreement provided for up to three separate purchases for a purchase price of $41.7 million each, at a first, second and third closing, for an aggregate purchase price of $125.0 million. In each purchase, Novo A/S would acquire rights to a low single digit percentage of net sales. In each of May 2013, January 2014 and November 2014, the Company received cash payments of $41.7 million, or $125.0 million in the aggregate, and Novo A/S received, in the aggregate, a right to receive royalties on net sales of Fovista at a mid-single digit percentage.

The royalty payment period covered by the Novo Agreement begins on commercial launch and ends, on a product-by-product and country-by-country basis, on the latest to occur of (i) the 12th anniversary of the commercial launch, (ii) the expiration of certain patent rights and (iii) the expiration of the regulatory exclusivity for each product in each country.

Under the terms of the Novo Agreement, the Company is not required to reimburse or otherwise compensate Novo A/S through any means other than the agreed royalty entitlement. In addition, the Company does not, under the terms of the Novo Agreement, have the right or obligation to prepay Novo A/S in connection with a change of control of the Company or otherwise.

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Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

7. Financing Agreement with Novo A/S (Continued)

The $125.0 million in aggregate proceeds from the three financing tranches under the Novo Agreement represents the full funding available under the Novo Agreement, and has been recorded as a liability on the Company's Balance Sheet as of December 31, 2015, in accordance with ASC 730, *Research and Development*. Because there is a significant related party relationship between the Company and Novo A/S, the Company is treating its obligation to make royalty payments under the Novo Agreement as an implicit obligation to repay the funds advanced by Novo A/S. As the Company makes royalty payments in accordance with the Novo Agreement, it will reduce the liability balance. At the time that such royalty payments become probable and estimable, and if such amounts exceed the liability balance, the Company will impute interest accordingly on a prospective basis based on such estimates, which would result in a corresponding increase in the liability balance.

The Novo Agreement requires the establishment of a Joint Oversight Committee in the event that Novo A/S does not continue to have a representative on the Company's board of directors. The Joint Oversight Committee would have responsibilities that include "discussion and review" of all matters related to Fovista research, development, regulatory approval and commercialization, but there is no provision either implicit or explicit that gives the Joint Oversight Committee or its members decision-making authority.

8. Property and Equipment

Property and equipment as of December 31, 2015 and 2014 were as follows:

	Useful Life (Years)	December 31, 2015	December 31, 2014
Manufacturing and clinical equipment	7 - 10	$ 617	$ 617
Computer and other office equipment	5	944	292
Furniture and fixtures	7	738	591
Leasehold improvements	3 - 5	1,551	357
Construction in progress		515	—
		4,365	1,857
Accumulated depreciation		(899)	(302)
Property and equipment, net		$ 3,466	$ 1,555

For the years ended December 31, 2015, 2014 and 2013, depreciation expense was $698 thousand, $127 thousand and $20 thousand, respectively.

9. Income Taxes

The Company utilizes the liability method of accounting for deferred income taxes. Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities. A valuation allowance is established against deferred tax assets when, based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. The Company's policy is to record interest and penalties on uncertain tax positions as income tax expense. As of December 31, 2015, the Company accrued approximately $0.3 million in interest and penalties

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Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

9. Income Taxes (Continued)

related to the timing of certain tax payments for the 2014 tax year. As of December 31, 2014, the Company did not believe any material uncertain tax positions were present, and as such, the Company did not accrue any interest or penalties due to uncertain tax positions.

Deferred income taxes reflect the net effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. A reconciliation of the statutory U.S. federal rate to the Company's effective tax rate is as follows:

	Years ended December 31,		
	2015	2014	2013
Percent of pre-tax income:			
U.S. federal statutory income tax rate	35.0%	35.0%	35.0%
State taxes, net of federal benefit	7.4%	6.8%	—
Permanent items	(0.5)%	2.3%	(2.2)%
Impact of state rate changes	0.9%	—	—
Research and development credit	—	—	2.7%
Change in valuation allowance	(29.1)%	(89.5)%	(35.5)%
Effective income tax rate	13.7%	(45.4)%	0.0%

The components of income tax (benefit) expense are as follows:

	Years ended December 31,		
	2015	2014	2013
Current:			
Federal	$ 136	$ 29,505	$ —
State	91	11,440	—
Deferred:			
Federal	(17,014)	(4,469)	—
State	—	—	—
Income tax (benefit) expense	$ (16,787)	$ 36,476	$ —

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

9. Income Taxes (Continued)

Significant components of the Company's deferred tax assets (liabilities) for 2015 and 2014 consist of the following:

	As of December 31,	
	2015	2014
Deferred tax assets (liabilities)		
Deferred revenue	$ 142,675	$ 120,611
License and technology payments	13,150	14,251
Share-based compensation	11,427	5,679
Accrued expenses	743	442
Depreciation	(617)	(328)
Federal and state net operating loss carryforwards	26,065	—
Excess tax benefits related to share-based compensation	1,630	—
Charitable contribution carryforwards	5	—
Deferred income tax assets	195,078	140,655
Valuation allowance	(171,965)	(136,138)
Net deferred tax assets	$ 23,113	$ 4,517

In assessing the realizability of deferred tax assets, the Company considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of taxable income during the periods in which the temporary differences representing net future deductible amounts become deductible, and is impacted by the Company's ability to carryback losses to 2014, the only year in which the Company had taxable income. The Company incurred tax losses in 2015. As such, the Company has recorded a benefit from income taxes during the year ended December 31, 2015. The Company currently expects to realize its net deferred tax assets recorded as of December 31, 2015 due to the Company's ability to carryback its expected 2015 federal tax losses to 2014. The Company expects to carry forward its 2015 state tax losses due to various state restrictions on the use of carryback claims. The state NOLs are expected to begin to expire in 2027. Because of the Company's history of losses and lack of other positive evidence to support taxable income after the 2014 tax year, the Company has recorded a valuation allowance against those remaining deferred tax assets that are not expected to be realized.

Deferred tax assets relating to employee share-based compensation deductions were reduced to reflect exercises of non-qualified stock option grants and vesting of RSUs. Although certain of these deductions will be reported on the corporate tax returns and increase the Company's NOLs, these related tax benefits are not recognized for financial reporting purposes.

10. Operating Leases

The Company leases office space located in Princeton, New Jersey and New York, New York under operating lease arrangements. The lease for the Company's principal Princeton office space expires in March 2021, whereas the lease for the Company's New York office space expires in February

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Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

10. Operating Leases (Continued)

2020. Future minimum rental commitments under non-cancelable operating leases in effect as of December 31, 2015, are as follows:

2016	$ 2,133
2017	2,445
2018	2,734
2019	2,673
2020	1,430
Thereafter	249
Total	$ 11,664

Rent expense is calculated on the straight-line basis and amounted to $2.1 million, $1.0 million and $0.5 million for the years ended December 31, 2015, 2014 and 2013, respectively.

11. Commitments and Contingencies

Under various agreements, the Company may be required to pay royalties and make milestone payments. These agreements include the following:

- Under the Company's divestiture agreement with OSI (Eyetech), Inc., which agreement is now held by OSI Pharmaceuticals, LLC., or OSI Pharmaceuticals, a subsidiary of Astellas US, LLC, for rights to particular anti-PDGF aptamers, including Fovista, the Company is obligated to pay to OSI Pharmaceuticals future one-time payments of $12.0 million in the aggregate upon marketing approval in the United States and the European Union of a covered anti-PDGF product. The Company is also obligated to pay to OSI Pharmaceuticals a royalty at a low single-digit percentage of net sales of any covered anti-PDGF product the Company successfully commercializes.

- Under a license agreement with Archemix Corp., or Archemix, with respect to pharmaceutical products comprised of or derived from any anti-PDGF aptamer, the Company is obligated to make future payments to Archemix of up to an aggregate of $14.0 million if the Company achieves specified clinical and regulatory milestones with respect to Fovista, up to an aggregate of $3.0 million if the Company achieves specified commercial milestones with respect to Fovista and, for each other anti-PDGF aptamer product that it may develop under the agreement, up to an aggregate of approximately $18.8 million if the Company achieves specified clinical and regulatory milestones and up to an aggregate of $3.0 million if the Company achieves specified commercial milestones. No royalties are payable to Archemix under this license agreement.

- Under a license agreement with Archemix with respect to pharmaceutical products comprised of or derived from anti-C5 aptamers, for each anti-C5 aptamer product that the Company may develop under the agreement, including Zimura, the Company is obligated to make future payments to Archemix of up to an aggregate of $57.5 million if the Company achieves specified development, clinical and regulatory milestones, and up to an aggregate of $22.5 million if the Company achieves specified commercial milestones. The Company is also obligated to pay Archemix a double-digit percentage of specified non-royalty payments the Company may receive

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

11. Commitments and Contingencies (Continued)

from any sublicensee of its rights under this license agreement. No royalties are payable to Archemix under this license agreement.

- Under a license, manufacturing and supply agreement with Nektar Therapeutics, or Nektar, for specified pegylation reagents used to manufacture Fovista, the Company is obligated to make future payments to Nektar of up to an aggregate of $6.5 million if the Company achieves specified clinical and regulatory milestones, and an additional payment of $3.0 million if the Company achieves a specified commercial milestone with respect to Fovista. The Company is obligated to pay Nektar tiered royalties at low to mid-single-digit percentages of net sales of any licensed product the Company successfully commercializes, with the royalty percentage determined by the Company's level of licensed product sales and the extent of patent coverage for the licensed product and whether the Company has granted a third-party commercialization rights to the licensed product. In June 2014, the Company paid Nektar $19.8 million in connection with its entry into the Novartis Agreement.

- Under the Novo Agreement, with respect to Fovista, the Company will be obligated to pay Novo A/S a mid-single-digit percentage royalty based on worldwide sales of Fovista. See "Note 7—Financing Agreement with Novo A/S" above for further information about Novo Agreement.

- Under an option agreement with AVEO relating to tivozanib, the Company will be obligated to make milestone payments of $2.0 million upon the submission of an Investigational New Drug application to the FDA and $6.0 million upon the earlier of demonstration of proof of concept in humans and a specified date in January 2017, subject to any exercise by the Company of its right to terminate the option agreement.

The Company also has employment agreements with certain employees which require the funding of a specific level of payments, if certain events, such as a change in control, termination without cause or retirement, occur.

In addition, in the course of normal business operations, the Company has agreements with contract service providers to assist in the performance of the Company's research and development and manufacturing activities. Expenditures to CROs and CMOs represent a significant cost in clinical development. Subject to required notice periods and the Company's obligations under binding purchase orders, the Company can elect to discontinue the work under these agreements at any time. The Company could also enter into additional collaborative research, contract research, manufacturing, and supplier agreements in the future, which may require upfront payments and even long-term commitments of cash.

12. Stock Option and Compensation Plans

The Company adopted its 2007 Stock Incentive Plan (the "2007 Plan") for employees, non-employee directors and consultants for the purpose of advancing the interests of the Company's stockholders by enhancing its ability to attract, retain and motivate persons who are expected to make important contributions to the Company. The 2007 Plan provided for the granting of stock option awards, RSU awards, and other stock-based and cash-based awards. Following the effectiveness of the 2013 Stock Incentive Plan described below in connection with the closing of the Company's initial public offering, the Company is no longer granting additional awards under the 2007 Plan.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

12. Stock Option and Compensation Plans (Continued)

In August 2013, the Company's board of directors adopted and the Company's stockholders approved the 2013 stock incentive plan (the "2013 Plan"), which became effective immediately prior to the closing of the Company's initial public offering. The 2013 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, and other stock-based awards. Upon effectiveness of the 2013 Plan, the number of shares of the Company's common stock that were reserved for issuance under the 2013 Plan was the sum of (1) such number of shares (up to approximately 3,359,641 shares) as is equal to the sum of 739,317 shares (the number of shares of the common stock then available for issuance under the 2007 Plan), and such number of shares of the Company's common stock that are subject to outstanding awards under the 2007 Plan that expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by the Company at their original issuance price pursuant to a contractual repurchase right plus (2) an annual increase, to be added the first business day of each fiscal year, beginning with the fiscal year ending December 31, 2014 and continuing until, and including, the fiscal year ending December 31, 2023, equal to the lowest of 2,542,372 shares of the Company's common stock, 4% of the number of shares of the Company's common stock outstanding on the first day of the fiscal year and an amount determined by its board of directors. The Company's employees, officers, directors, consultants and advisors are eligible to receive awards under the 2013 Plan. However, incentive stock options may only be granted to employees of the Company.

In connection with the evergreen provisions of the 2013 Plan, the number of shares available for issuance under the 2013 Plan was increased by approximately 1,257,000 shares, effective as of January 1, 2014 and an additional approximately 1,360,000 shares effective as of January 1, 2015. As of December 31, 2015, the Company had approximately 1,070,000 shares available for grant under the 2013 Plan. In connection with the evergreen provisions of the 2013 Plan, the number of shares available for issuance under the 2013 Plan was further increased by approximately 1,408,000 shares, effective as of January 1, 2016.

On August 31, 2015, as an inducement grant issued outside the Company's existing equity compensation plan in accordance with NASDAQ listing rule 5635(c)(4) (an "inducement grant"), the Company issued to an employee an option to purchase 120,000 shares of its common stock at an exercise price of $44.03 per share.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

12. Stock Option and Compensation Plans (Continued)

A summary of the stock option activity, weighted average exercise prices, options outstanding and exercisable as of December 31, 2015, 2014 and 2013 is as follows:

	Years ended December 31,					
	2015		2014		2013	
	Common Stock Options	Weighted Average Exercise Price	Common Stock Options	Weighted Average Exercise Price	Common Stock Options	Weighted Average Exercise Price
Outstanding at beginning of year:	3,680	$ 21.03	2,708	$ 9.41	1,344	$ 1.65
Granted	764	$ 47.31	1,744	$ 33.92	1,583	$ 14.82
Exercised	(1,133)	$ 10.31	(621)	$ 4.75	(151)	$ 0.61
Expired or forfeited	(302)	$ 34.09	(151)	$ 28.50	(68)	$ 1.53
Outstanding at end of year:	3,009	$ 30.43	3,680	$ 21.03	2,708	$ 9.41

	Years ended December 31,		
	2015	2014	2013
Options exercisable at end of year	955	993	984
Weighted average grant date fair value (per share) of options granted during the period	$ 31.33	$ 24.41	$ 10.48

As of December 31, 2015, there were approximately 2,794,000 options outstanding, net of estimated forfeitures, that had vested or are expected to vest. The weighted-average exercise price of these options was $23.18 per option; the weighted-average remaining contractual life of these options was 8.0 years; and the aggregate intrinsic value of these options was approximately $134.0 million.

	As of December 31, 2015				
	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Total Options Outstanding	Weighted Average Remaining Life (Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$0.12-$10.03	448	6.6	$ 7.70	201	$ 5.38
$10.04-$20.00	339	6.7	$ 13.45	130	$ 13.52
$20.01-$30.00	162	7.8	$ 25.61	76	$ 25.51
$30.01-$40.00	1,270	8.1	$ 33.28	511	$ 33.31
$40.01-$55.00	742	9.2	$ 45.50	37	$ 43.23
$55.01-$70.34	48	9.6	$ 70.26	—	$ —
	3,009	8.0	$ 30.43	955	$ 24.50
Aggregate Intrinsic Value	$ 144,758			$ 51,594	

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

12. Stock Option and Compensation Plans (Continued)

Cash proceeds from, and the aggregate intrinsic value of, stock options exercised during the years ended December 31, 2015, 2014 and 2013, respectively, were as follows:

	Years ended December 31,		
	2015	2014	2013
Cash Proceeds from options exercised	$ 11,473	$ 2,949	$ 94
Aggregate intrinsic value of options exercised	$ 49,255	$ 21,646	$ 4,545

In connection with stock option awards granted to employees, the Company recognized approximately $15.5 million, $11.3 million and $2.2 million in share-based compensation expense during the years ended December 31, 2015, 2014 and 2013, respectively, net of expected forfeitures. As of December 31, 2015, there was approximately $36.9 million of unrecognized compensation costs, net of estimated forfeitures, related to stock option awards to granted employees, which are expected to be recognized over a remaining weighted average period of 2.6 years.

In connection with stock options awards granted to consultants, the Company recognized approximately $4.1 million, $1.4 million and $0.7 million in share-based compensation expense during the years ended December 31, 2015, 2014 and 2013, respectively, net of expected forfeitures. As of December 31, 2015, there was approximately $4.3 million of unrecognized compensation costs, net of estimated forfeitures, related to stock option awards granted to consultants, which are expected to be recognized over a remaining weighted average period of 2.1 years.

The following table presents a summary of the Company's outstanding shares of RSU awards granted as of December 31, 2015:

	Restricted Stock Units	Weighted Average Grant-Date Fair Value
Outstanding, December 31, 2014	37	$ 34.13
Awarded	336	45.04
Vested	(55)	41.90
Forfeited	(30)	42.01
Outstanding, December 31, 2015	288	$ 44.54

As of December 31, 2015, there were approximately 265,000 RSUs outstanding, net of estimated forfeitures, that are expected to vest. The weighted-average fair value of these RSUs was $44.54; and the aggregate intrinsic value of these RSUs was approximately $20.8 million.

In connection with RSUs granted to employees, the Company recognized approximately $5.2 million and $0.3 million in share-based compensation expense during the years ended December 31, 2015 and December 31, 2014, respectively, net of expected forfeitures. The Company did not recognize any share-based compensation expense related to RSUs during the year ended December 31, 2013. As of December 31, 2015, there was approximately $8.6 million of unrecognized compensation costs, net of estimated forfeitures, related to RSUs granted to employees, which are expected to be recognized over a remaining weighted average period of 2.9 years. The total fair value of the RSUs that vested during the year ended December 31, 2015 was $2.3 million.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

13. Employee Benefit Plan

The Company maintains a defined contribution 401(k) plan available to employees. Employee contributions are voluntary and are determined on an individual basis, limited by the maximum amounts allowable under federal tax regulations. The Company's matching contributions to employees totaled approximately $0.5 million and $0.2 million during the years ended December 31, 2015 and December 31, 2014, respectively. The Company did not match any of the employee contributions during the year ended December 31, 2013.

14. Fair Value Measurements

ASC 820, *Fair Value Measurements and Disclosures*, defines fair value as the price that would be received to sell an asset, or paid to transfer a liability, in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. The fair value standard also establishes a three-level hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The Company reviews investments on a periodic basis for other than temporary impairments. This review is subjective as it requires management to evaluate whether an event or change in circumstances has occurred in the period that may have a significant adverse effect on the fair value of the investment. The Company uses the market approach to measure fair value for its financial assets. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets. The Company classifies its corporate debt securities within the fair value hierarchy as Level 2 assets, as it primarily utilizes quoted market prices or rates for similar instruments to value these securities.

The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability on the measurement date. The three levels are defined as follows:

- Level 1—inputs to the valuation methodology are quoted prices (unadjusted) for an identical asset or liability in an active market. The Company's Level 1 assets consist of investments in money market funds and U.S. Treasury securities.

- Level 2—inputs to the valuation methodology include quoted prices for a similar asset or liability in an active market or model-derived valuations in which all significant inputs are observable for substantially the full term of the asset or liability. The Company's Level 2 assets consist of investments in investment-grade corporate debt securities.

- Level 3—inputs to the valuation methodology are unobservable and significant to the fair value measurement of the asset or liability. The Company does not hold any assets that are measured using Level 3 inputs.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

14. Fair Value Measurements (Continued)

The following table presents, for each of the fair value hierarchy levels required under ASC 820, the Company's assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2015:

	Fair Value Measurement Using		
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets			
Investments in money market funds*	$ 196,188	$ —	$ —
Investments in U.S. Treasury securities	$ 150,387	$ —	$ —
Investments in Corporate debt securities	$ —	$ 39,833	$ —

The following table presents, for each of the fair value hierarchy levels required under ASC 820, the Company's assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2014:

	Fair Value Measurement Using		
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets			
Investments in U.S. Treasury money market funds*	$ 35,111	$ —	$ —
Investments in U.S. Treasury securities	$ 423,746	$ —	$ —

* Investments in money market funds and U.S. Treasury securities with maturities less than 90 days are reflected in cash and cash equivalents in the accompanying Balance Sheets.

No transfer of assets between Level 1 and Level 2 of the fair value measurement hierarchy occurred during the years ended December 31, 2015 or December 31, 2014.

OPHTHOTECH CORPORATION

Notes to Financial Statements (Continued)

(tabular dollars and shares in thousands, except per share data)

15. Selected Quarterly Financial Information (unaudited)

The following is a summary of the quarterly results of operations for the years ended December 31, 2015 and 2014:

	2015			
	March 31	June 30	September 30	December 31
Collaboration revenue	$ 41,678	$ 1,597	$ 3,448	$ 4,782
Research and development expenses	24,557	32,059	40,479	33,917
General and administrative expenses	9,584	11,959	10,412	12,066
Income (loss) from operations	7,537	(42,421)	(47,443)	(41,201)
Net income (loss) attributable to common stockholders	$ 6,636	$ (37,131)	$ (39,573)	$ (35,649)
Basic earnings (loss) per common share	$ 0.19	$ (1.08)	$ (1.14)	$ (1.02)
Diluted earnings (loss) per common share	$ 0.19	$ (1.08)	$ (1.14)	$ (1.02)

	2014			
	March 31	June 30	September 30	December 31
Collaboration revenue	$ —	$ —	$ 39,575	$ 1,684
Research and development expenses	14,377	34,707	17,105	22,196
General and administrative expenses	6,349	7,570	8,812	10,656
Income (loss) from operations	(20,726)	(42,277)	13,658	(31,168)
Net income (loss) attributable to common stockholders	$ (20,682)	$ (72,990)	$ 8,552	$ (31,652)
Basic earnings (loss) per common share	$ (0.64)	$ (2.19)	$ 0.26	$ (0.94)
Diluted earnings (loss) per common share	$ (0.64)	$ (2.19)	$ 0.25	$ (0.94)

EXHIBIT INDEX

Exhibit Number	Description of Exhibit	Incorporated by Reference				Filed Herewith
		Form	File Number	Date of Filing	Exhibit Number	
3.1	Restated Certificate of Incorporation of the Registrant	S-1/A	333-190643	9/9/2013	3.3	
3.2	Amended and Restated Bylaws of the Registrant	S-1/A	333-190643	9/9/2013	3.4	
4.1	Specimen Stock Certificate evidencing the shares of common stock	S-1/A	333-190643	9/9/2013	4.1	
10.1+	Amended and Restated 2007 Stock Incentive Plan, as amended	S-1	333-190643	8/15/2013	10.1	
10.2+	Form of Incentive Stock Option Agreement under Amended and Restated 2007 Stock Incentive Plan	S-1	333-190643	8/15/2013	10.2	
10.3+	Form of Nonstatutory Stock Option Agreement under 2007	S-1	333-190643	8/15/2013	10.3	
10.4+	2013 Stock Incentive Plan	10-K		3/2/2015	10.4	
10.5+	Amendment No. 1 to Stock Incentive Plan, adopted June 4, 2015	10-Q		8/10/2015	10.1	
10.6+	Form of Incentive Stock Option Agreement under 2013 Stock Incentive Plan	S-1/A	333-190643	9/9/2013	10.5	
10.7+	Form of Nonqualified Stock Option Agreement under 2013 Stock Incentive Plan	S-1/A	333-190643	9/9/2013	10.6	
10.8+	Form of Restricted Stock Unit Agreement under 2013 Stock Incentive Plan	10-K		3/2/2015	10.7	
10.9	Lease Agreement, dated as of September 30, 2007, between the Registrant and One Penn Plaza LLC, as the same has been supplemented by agreement dated March 12, 2013 and amended by the Amendment of Lease, dated as of August 30, 2013, Second Amendment to Lease, entered into on January 7, 2014, Third Amendment of Lease, dated as of April 18, 2014, and the Fourth Amendment of Lease, dated as of December 22, 2014	10-K		3/2/2015	10.8	
10.10	Sublease Agreement, dated April 7, 2015, by and between Otsuka America Pharmaceutical, Inc. and the Registrant	10-Q		8/10/2015	10.2	

Exhibit Number	Description of Exhibit	Incorporated by Reference				Filed Herewith
		Form	File Number	Date of Filing	Exhibit Number	
10.11	Lease Agreement with Carnegie 214 Associates Limited Partnership, dated as of October 25, 2013	S-1	333-193681	1/31/2014	10.8	
10.12	Office Lease Agreement, dated as of August 22, 2013, by and between the Registrant and PSN Partners, L.P.	S-1/A	333-190643	9/9/2013	10.17	
10.13†	Divestiture Agreement, dated as of July 27, 2007, by and between the Registrant and (OSI) Eyetech, Inc.	S-1	333-190643	8/15/2013	10.9	
10.14†	License, Manufacturing and Supply Agreement, dated as of September 30, 2006, by and between Nektar Therapeutics AL, Corporation and (OSI) Eyetech, Inc., as the same was assigned to the Registrant on July 27, 2007 and amended by Amendment No. 1 thereto, dated as of April 5, 2012, and supplemented by a letter agreement, dated as of June 20, 2013	S-1	333-190643	8/15/2013	10.10	
10.15†	Amendment No. 2 to, Scope of Work #1 for, and Amendment No. 3 to License, Manufacturing and Supply Agreement, dated as of September 30, 2006, by and between Nektar Therapeutics AL, Corporation and (OSI) Eyetech, Inc., as the same was assigned to the Registrant on July 27, 2007 and amended by Amendment No. 1 thereto, dated as of April 5, 2012, and supplemented by a letter agreement, dated as of June 20, 2013.	10-Q		5/11/2015	10.1	
10.16†	Amended and Restated Exclusive License Agreement, dated as of September 12, 2011, by and between the Registrant and Archemix Corp., as amended by Amendment No. 1 thereto dated December 20, 2011 and supplemented by a letter agreement, dated as of April 30, 2012	S-1	333-190643	8/15/2013	10.11	

Exhibit Number	Description of Exhibit	Incorporated by Reference				Filed Herewith
		Form	File Number	Date of Filing	Exhibit Number	
10.17†	Amended and Restated Exclusive License Agreement, dated as of September 12, 2011, by and between the Registrant and Archemix Corp., as amended by Amendment No. 1 thereto, dated as of December 20, 2011	S-1	333-190643	8/15/2013	10.12	
10.18†	Purchase and Sale Agreement, dated as of May 23, 2013, by and between the Registrant and Novo A/S	S-1	333-190643	8/15/2013	10.13	
10.19†	Amendment No. 1 to the Purchase and Sale Agreement, dated as of May 23, 2013, by and between the Registrant and Novo A/S	10-K		3/2/2015	10.24	
10.20†	Licensing and Commercialization Agreement by and between the Registrant and Novartis Pharma AG dated May 19, 2014	10-Q		8/6/2014	10.2	
10.21†	Clinical Manufacturing and Supply Agreement by and between the Registrant and Agilent Technologies, Inc. dated May 2, 2014	10-Q		8/6/2014	10.1	
10.22†	Amendment No. 1 to Clinical Manufacturing and Supply Agreement by and between the Registrant and Agilent Technologies, Inc. dated September 3, 2015	10-Q		11/5/2015	10.1	
10.23†	Commercial Manufacturing and Supply Agreement by and between the Registrant and Agilent Technologies, Inc. dated September 3, 2015	10-Q		11/5/2015	10.2	
10.24+	Offer of Employment between the Registrant and David Guyer	S-1/A	333-190643	9/9/2013	10.14	
10.25+	Letter Agreement between the Registrant and David R. Guyer dated February 26, 2015, amending the Offer of Employment between the Registrant and David R. Guyer dated April 26, 2013	10-Q		5/11/2015	10.2	
10.26+	Third Amended and Restated Employment Agreement between the Registrant and Samir C. Patel, dated May 1, 2015	10-Q		5/11/2015	10.3	

Exhibit Number	Description of Exhibit	Incorporated by Reference				Filed Herewith
		Form	File Number	Date of Filing	Exhibit Number	
10.27+	Offer of Employment between the Registrant and Michael G. Atieh dated September 20, 2014	10-Q		11/12/2014	10.1	
10.28+	Letter Agreement between the Registrant and Michael G. Atieh, dated May 4, 2015	10-Q		5/11/2015	10.4	
10.29+	Letter Agreement between the Registrant and Michael G. Atieh, dated January 4, 2016					Yes
10.30+	Nonstatutory Stock Option Agreement between the Registrant and Michael G. Atieh, dated September 30, 2014	10-Q		11/12/2014	10.2	
10.31+	Offer of Employment between the Registrant and Henric Bjarke, dated July 15, 2015					Yes
10.32+	Letter Agreement between the Registrant and Henric Bjarke, dated July 15, 2015					Yes
10.33+	Nonstatutory Stock Option Agreement between the Registrant and Henric Bjarke, dated August 31, 2015					Yes
10.34+	Offer of Employment between the Registrant and Barbara A. Wood, dated October 21, 2013, revised October 22, 2013					Yes
10.35+	Letter Agreement between the Registrant and Barbara A. Wood, dated February 20, 2015	10-Q		5/11/2015	10.6	
23.1	Consent of Ernst & Young LLP	10-K			23.1	Yes
31.1	Certification of principal executive officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended.					Yes
31.2	Certification of principal financial officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended.					Yes
32.1	Certification of principal executive officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					Yes

Exhibit Number	Description of Exhibit	Incorporated by Reference				Filed Herewith
		Form	File Number	Date of Filing	Exhibit Number	
32.2	Certification of principal financial officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					Yes
101.INS	XBRL Instance Document.					Yes
101.SCH	XBRL Taxonomy Extension Schema Document.					Yes
101.CAL	XBRL Taxonomy Calculation Linkbase Document.					Yes
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					Yes
101.LAB	XBRL Taxonomy Label Linkbase Document.					Yes
101.PRE	XBRL Taxonomy Presentation Linkbase Document.					Yes

† Confidential treatment has been granted as to certain portions, which portions have been omitted and separately filed with the Securities and Exchange Commission.

+ Management contract or compensatory plan or arrangement filed in response to Item 15(a)(3) of the Instructions to the Annual Report on Form 10-K.

Exhibit 10.29

OPHTHOTECH

One Penn Plaza
19th Floor
New York, NY 10119
(212) 845-8200

January 4, 2016

Mr. Michael G. Atieh

Re: Separation Agreement and General Release

Dear Mike:

This letter agreement (the "Letter Agreement") confirms our agreement concerning your retirement and separation from Ophthotech Corporation ("Ophthotech" or the "Company") and the transition of your responsibilities as Executive Vice President, Chief Financial Officer & Business Officer and Treasurer (collectively, "CFO"). By the Company's and your signing a copy of this Letter Agreement in the space provided below, the Company and you agree to the terms and conditions set forth herein.

A. Designated Employee Period.

1. You agree to retire and resign as CFO (and resign from all officership and director positions at the Company and its subsidiaries), and directly become a consultant to the Company as provided for below, at such time as the Chief Executive Officer ("CEO") terminates the "Designated Employee Period" (as defined below). In addition, during the Designated Employee Period, the CEO shall have the option to require that you relinquish some or all of the offices and titles comprising your position as CFO, and continue as an employee, until such time as the CEO terminates the Designated Employee Period, at which point you shall retire and resign and directly become a consultant to the Company as provided for below. During the Designated Employee Period you agree to (i) continue to fulfill your professional responsibilities and obligations and remain an employee in good standing, and (ii) perform such duties and responsibilities, and assume such titles, as are determined by the Company's Chief Executive Officer (the "CEO") in his sole discretion (but you shall not be subject to any greater duties, titles or responsibilities than you currently have).

2. During the Designated Employee Period you shall (A) continue to receive your current annual base salary at the rate of $453,940 (the "Base Salary"), payable in accordance with the Company's normal payroll practices, (B) receive a lump-sum

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payment in the amount of $306,410, consisting of your bonus for 2015, payable on January 15, 2016, and (C) continue to participate in the Company's benefit plans and programs, so long as you remain eligible to continue such participation.

3. For purposes of this Letter Agreement, the "Designated Employee Period" shall mean the period commencing upon your execution of this Letter Agreement and continuing until the earlier of (i) the date upon which the CEO terminates your services as CFO (without requiring that you continue as an employee) or terminates your services as an employee (as the case may be) for any reason and (ii) June 30, 2016.

4. Upon termination of the Designated Employee Period, your employment by the Company shall terminate (the "Separation Date"). So long as you have not resigned prior to the Separation Date, or during the Designated Employee Period engaged in "Disqualifying Conduct" (as defined below), and you execute and return within twenty-eight (28) days of the Separation Date, and do not revoke a copy of the Supplemental General Release in the form attached hereto as Exhibit A, the Company will provide you with the following payments ("Severance Payment") on the sixtieth (60th) day following the Separation Date. The Severance Payment shall consist of:

   i. a lump sum payment in the amount of $453,940 consisting of twelve (12) months of your current base salary;

   ii. a lump sum payment of $113,484, consisting of your pro-rata Target Bonus for 2016; and

   iii. a lump sum payment equal to the product of (A) the number of full months remaining between the Separation Date and the date you become eligible for Medicare, less the number of full months following the Separation Date for which COBRA coverage remains in effect under this Letter Agreement and (B) the monthly cost paid by the Company as of the Separation Date for medical coverage for you and your spouse. This payment shall be subject to the conditions set forth in Paragraph D.12 (the "COBRA Payment").

5. Your group health, vision and dental coverage will continue through the last date of the month in which your Separation Date occurs. You will be given separate information regarding your right to continue your group health/dental/vision coverage, as required by the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA"). All COBRA rights are subject to your completion and submission of the proper forms in the times allotted.

   Provided you timely elect COBRA continuation coverage, the Company will reimburse you for the monthly premium to continue such coverage for the lesser of (i) eighteen (18) full calendar months immediately following the last day of the calendar month in which your Separation Date occurs; and (ii) the end of the calendar month in which you become eligible to receive group health plan

coverage under another employee benefit plan. For the avoidance of doubt, such reimbursement of monthly premiums shall be subject to Code Section 409A.

6. Provided that you comply with the terms of this Letter Agreement, and your post-termination obligations to the Company, both during the Designated Employee Period and during the "Consultancy Period" (as defined below), and provided that you have continued to provide services to the Company as an employee or consultant on the applicable vesting dates and not engaged in any "Disqualifying Conduct"(as defined below), the following stock options and restricted stock units granted to you by the Company (collectively, the "Stock Grants") shall (i) continue to vest, through September 30, 2016, in accordance with the terms of the grant agreements and the applicable stock incentive plans (other than with respect to vesting as provided for in this Letter Agreement) and (ii) once vested, remain exercisable through September 30, 2019.

    a. Nonstatutory Stock Option Agreement providing for the grant of 200,000 options as of September 30, 2014 (resulting in a maximum vesting of 100,000 options, assuming your service through September 30, 2016);

    b. Nonstatutory Stock Option Agreement providing for the grant of 6,500 options as of January 2, 2015 (resulting in a maximum vesting of 2,708 options, assuming your service through September 30, 2016); and

    c. Restricted Stock Unit Agreement providing for the grant of 1,700 shares as of January 2, 2015 (resulting in a maximum vesting of 425 RSU's, assuming your service through September 30, 2016).

   Notwithstanding the foregoing, if during 2016 the Company enters into a term sheet providing for the consummation of a Change in Control Event (as defined in the Company's 2013 Stock Incentive Plan) and consummates that Change in Control Event on or prior to December 31, 2016, the Company will vest any equity awards held by you that vest solely on the passage of time under the Stock Grants immediately prior to the effective date of the Change in Control Event.

   This Letter Agreement is intended to modify the terms of the applicable grant and/or award agreements referenced above as specified herein; without limiting the foregoing, to the extent this Letter Agreement results in any modification from an Incentive Stock Option grant to a non-qualified stock option, or is otherwise inconsistent with the provisions of the terms of the applicable award or grant agreements, the terms of this Letter Agreement control.

7. During the Designated Employee Period you shall not be eligible for any equity awards or any other remuneration, awards, payments or benefits in addition to what is specified in this Letter Agreement.

8. For purposes of this Letter Agreement, "Disqualifying Conduct" shall mean (i) you failed to attempt in good faith, refused or willfully neglected to perform and

discharge your material duties and responsibilities, (ii) you have been convicted of, or pled *nolo contendere* to, a felony or other crime involving fraud or moral turpitude, (iii) you breached your fiduciary duty of loyalty to the Company, or acted fraudulently or with material dishonesty in discharging your duties to the Company, (iv) you undertook an intentional act or omission of misconduct that materially harmed or was reasonably likely to materially harm the business, interests, or reputation of the Company, (v) you materially breached any material provision of this Letter Agreement or any other agreement with the Company, or (vi) you have materially breached any material provision of any Company code of conduct or ethics policy. With respect to any alleged breach of the foregoing sub-clauses (i), (v) and (vi) the Company will provide you with written notice and an opportunity to cure within ten (10) days of such notice, to the extent such alleged breach is in the judgment of the Company otherwise curable.

9. If you die during the Designated Employee Period, the Company will provide the payments and benefits set forth in Sections A4 (other than the COBRA Payment), A5 or A6 to your spouse, or if your spouse pre-deceases you, your estate, provided that your spouse or your estate (as applicable) executes and returns within twenty-eight (28) days of the date of your death, and does not revoke a copy of the Supplemental General Release in the form attached hereto as Exhibit A.

B. <u>The Consulting Period.</u>

1. Upon the Separation Date, and subject to compliance with the terms of this Letter Agreement and the absence of Disqualifying Conduct, the Company shall continue to engage you, and you agree to make your services available, as a consultant on an as-needed basis following the Separation Date through September 30, 2016 (the "<u>Consultancy Period</u>"), with services to be provided as described below. For any period of the Consultancy Period running from January 1, 2016 through to and including June 30, 2016, you shall be paid a monthly consulting fee equal to $37,828, payable in arrears. For any period of the Consultancy Period running from July 1, 2016 through September 30, 2016, the Company will pay you $1,000 per month, in arrears.

2. For so long as the Company in its discretion maintains the Solium system plan (or a substantially comparable system) for its senior executives or consultants (but in no event past September 30, 2019 to the extent that the Company maintains the system plan through such date), the Company will under the Solium system plan provide a platform with notices, compilations and statements for the exercise of the Stock Grants and sale of the underlying stock through your broker JP Morgan Chase, or some substantially comparable plan. To the extent that you are no longer eligible to participate in the Solium system, the exercise of any stock options shall be in such manner as the Company may direct.

C. Tax and Reporting Matters.

1. All payments under this Letter Agreement will be subject to all deductions required by law, including applicable taxes and withholdings. In accordance with its normal payroll practices, the Company will mail to the address listed above (or such other address as you have provided in writing to the Company's Human Resources Department) an IRS Form W-2 (a) following the end of 2015, covering compensation you received in 2015, including compensation you received as the Severance Payment, if any; (b) following the end of 2016, covering compensation you received in 2016, including the Severance Payment and any COBRA reimbursement payments received in 2016; (c) following the end of 2017, covering any COBRA reimbursement payments received in 2017. An IRS Form 1099 will be issued to you for the payments described in Paragraph B.l.

D. Release and Ongoing Obligations.

In consideration for the Company providing you with the payments and benefits described in Section A, above, to which you are not otherwise entitled, you voluntarily agree to the following:

1. You, for yourself and for your heirs, executors, administrators, successors and assigns (referred to collectively as "Releasor"), forever release and discharge the Company and any and all of the Company's past and present affiliates, parent entities, subsidiaries, divisions, offices, branches, assets, employee benefit plans, funds, investment funds, successors and assigns, and any and all of its and their past and present officers, directors, partners, members, shareholders, agents, attorneys, employees, agents, trustees, fiduciaries, representatives, administrators, successors and assigns (whether acting in such capacity or otherwise) (referred to collectively as the "Releasees"), from any and all claims, demands, causes of action, fees and liabilities of any kind whatsoever, whether known or unknown, which Releasor ever had, now has or may have against Releasees or any of them by reason of any actual or alleged act, omission, transaction, practice, conduct, occurrence or other matter from the beginning of the world up to and including the date you sign this Letter Agreement (other than claims you may have based upon your rights under this Letter Agreement).

2. Without limiting the generality of the foregoing general release, by signing this Letter Agreement you agree that Releasor is releasing Releasees from any and all claims arising out of your employment with the Company, the terms and conditions of such employment and/or the termination of such employment, including but not limited to: (i) any claim under the Employee Retirement Income Security Act of 1974 ("ERISA"), Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Civil Rights Act of 1866, the Equal Pay Act, the Americans with Disabilities Act, the Family and Medical Leave Act, the National Labor Relations Act, the Sarbanes-Oxley Act, the Dodd-Frank Act, the New York State Human Rights Law, the New York City Human Rights Law, the New York Labor Law, the New York Minimum Wage Act, the statutory

provisions regarding retaliation/discrimination under the New York Worker's Compensation Law, the New York City Earned Sick Time Act, Florida Civil Rights Act of 1992 f/k/a Human Rights Act of 1977, Fla. Stat. § 760.01 *et seq*.; the Florida Equal Pay Law, Fla. Stat. § 448.07, Fla. Stat. § 725.07, Florida AIDS Act, Fla. Stat. § 760.50, Florida Law Sickle-Cell Trait Discrimination Law, Fla. Stat. §§ 448.075, 448.076, Florida Private Whistleblower Protection Law, Fla. Stat. § 448.101 *et seq*., the Florida Public Whistle-Blower's Act, Fla. Stat. § 112.3187 *et seq*.; Florida Workers' Compensation Retaliation Law, Fla. Stat. § 440.205, Florida Unpaid Wages Law, Fla. Stat. § 448.08, Florida Minimum Wage Act, Fla. Stat. §§ 448.109, 448.110, Article X Section 24 of the Florida Constitution, Florida Leave to Victims of Domestic Violence Act, Fla. Stat. § 741.313, and waivable rights under the Florida Constitution, the New Jersey Law Against Discrimination, the New Jersey Family Leave Act, the New Jersey Conscientious Employee Protection Act, the New Jersey Wage Payment Law, the New Jersey Wage and Hour Law, the New Jersey Equal Pay Law, the New Jersey Smoker's Rights Act, the New Jersey Lie Detector Test Law, the New Jersey Jury Duty Employee Protection Law, the New Jersey Worker Freedom From Intimidation Act, the New Jersey Political Activities of Employees Law, the New Jersey Fair Credit Reporting Act, the retaliation provisions of the New Jersey Workers' Compensation Law, the New Jersey Security and Financial Empowerment Act, the New Jersey Social Media Privacy law, the New Jersey Opportunity to Compete Act, all New Jersey Municipal Sick Leave Laws, any claims for violation of the New Jersey State Constitution, and any other applicable federal, state or local statute (all as amended); (ii) any claims for violation of any statutory or administrative rules, regulations or codes; (iii) any other claim of discrimination, harassment or retaliation in employment (whether based on federal, state or local law, statutory or decisional); (iv) any claim sounding in tort (whether intentional or unintentional), common law or contract (express or implied), wrongful discharge, whistleblowing, detrimental reliance, defamation; wrongful discharge, retaliatory discharge, and (v) any claim for attorney's fees, costs, disbursements, emotional distress, pain and suffering, damages of any kind, including compensatory and/or punitive damages.

3. Notwithstanding the foregoing general release, nothing in this Letter Agreement will affect or constitute a waiver of: (i) claims arising after the date you sign it; (ii) claims that cannot be waived by law; (iii) any right to make any disclosure to or cooperate with the United States Securities and Exchange Commission ("SEC") pursuant to Section 21F(b) of the Securities and Exchange Act or to receive a reward from the SEC in connection therewith; (iv) claims for accrued, vested benefits under any employee pension plan of the Company in accordance with the terms of the official plan documents and applicable law; (v) claims for reimbursement through the Company's Flexible Spending Account Program; (vi) claims for benefits under the Company's group medical, vision and dental and disability plans in accordance with the terms of such plans and applicable law; (vii) your rights with respect to matters arising under this Letter Agreement, including without limitation matters arising after the Effective Date in connection with the Stock Grants; (viii) your rights to indemnification or coverage arising

under the Company's foundation documents or bylaws, any applicable Directors and Officer policy and applicable laws; or (ix) your rights as a shareholder in connection with any matter arising after the Effective Date under any equity interest (the "Excluded Claims").

4. You acknowledge that you may hereafter discover claims or facts in addition to or different from those which you now know or believe to exist with respect to the subject matter of this Letter Agreement and which, if known or suspected at the time you execute this Letter Agreement, may have materially affected this Letter Agreement and your decision to enter into it. Nevertheless, you hereby waive any right, claim or cause of action that might arise as a result of such different or additional claims or facts.

5. You represent and warrant that you have maintained in the strictest confidence all information relating to the Company and/or the Releasees and their respective business that is not generally known by persons not employed by the Company and that could not easily be determined or learned by someone outside of the Company. All of the foregoing shall be deemed "Confidential Information." You agree that you will maintain in the strictest confidence all Confidential Information, except as set forth below. In addition, you hereby acknowledge and re-affirm all your obligations under the Invention, Non-Disclosure, Non-Competition and Non-Solicitation Agreement between you and the Company dated September 30, 2014 (the "Covenant Agreement"), including your post termination obligations, which are expressly incorporated herein and which shall continue in full force and effect. You acknowledge and agree that the payments and benefits provided under this Letter Agreement represent additional consideration for your obligations under the Covenant Agreement.

6. You represent and warrant that you fully and completely disclosed any alleged facts of which you are aware that constitute or might constitute a violation of the Company's policies, including the Code of Conduct, and/or any of the securities laws, rules or regulations of the United States of America or any political subdivision thereof.

7. You agree and acknowledge that the CEO's and/or the Company's exercise of discretion pursuant to any of the terms of this Letter Agreement shall not give rise to any claim of any nature.

8. You agree that you have not and in the future will not disclose to any other person or entity (directly or indirectly), Confidential Information (as defined in Paragraph D.4), except (a) as may be required pursuant to a valid subpoena, a request by a government agency (including but not limited to the United States Equal Employment Opportunity Commission ("EEOC") or the Securities and Exchange Commission ("SEC") in connection with any charge filed, investigation or proceeding or as otherwise required by law; and (b) to your immediate family members, financial advisors and attorneys, provided that you first inform them of the confidentiality of this Agreement and they agree to maintain its

confidentiality. You further agree that you will not solicit or initiate any demand or request by others for the disclosure of Confidential Information; or encourage or induce any other person to make any statement or disclosure of Confidential Information. In the event that you receive an inquiry from the press or otherwise that could potentially call for the disclosure of Confidential Information, you will respond to the inquiry, if at all, by stating "I cannot comment," or words to that effect. This Paragraph shall not be construed to prohibit you from participating in the activities described in Paragraph D. 10.

9. You will cooperate fully with the Company, and provide assistance to the Company, in connection with (a) the orderly transition of all of your responsibilities and matters, (b) any pending or future litigation, administrative proceeding, or investigatory matter, and (c) any other matters for which you were responsible or with respect to which your knowledge may be of assistance to the Company. You further agree that, in the event you are subpoenaed by any person or entity (including, but not limited to, any government agency) to give testimony (in a deposition, court proceeding or otherwise) which in any way relates to your employment with the Company, unless prohibited from doing so by an order of a court or a government agency, you will give prompt written notice of such request to the Company's Head of Human Resources, at the address above to allow the Company a reasonable opportunity to first contest the right of the requesting person or entity to such disclosure. You agree to provide such cooperation and assistance as requested by the Company, subject to the reasonable efforts of the Company to accommodate any new employment obligations you may have, and the Company shall reimburse you for your reasonable out-of-pocket expenses in connection therewith. For the avoidance of doubt, nothing in this Paragraph or elsewhere in the Agreement is intended in any way to prevent you from testifying fully and truthfully in any action or proceeding or in connection with any regulatory matter.

10. You agree that you have not and will not make any disparaging, critical or otherwise detrimental statements (orally or in writing) to any person or entity concerning the Company, its officers, directors, managing members, investors, employees, attorneys, representatives, affiliates, customers, clients, its and their business affairs or financial condition, the circumstances surrounding your employment and separation from the Company. For purposes of this Letter Agreement, the term "disparage" shall mean any oral or written statement or representation which, directly or by implication, tends, in the minds of a reasonable audience, to create a negative impression about the subject of the statement or representation, and includes, without limitation, comments or statements to the press and/or media, including, but not limited to, print journalists, press interviews or statements, newspapers, radio, television, cable, satellite programs, or Internet media (including blogs, web pages, web posts, email, and or "chat programs"), or to the Company, its officers, directors, employees, affiliates, customers, clients, or any person or entity with which the Company has a business relationship which would: (a) adversely affect in any manner the conduct of the business of the Company or the Company's business

relationships; (b) adversely affect in any manner the business reputation of the Company, its officers, directors, managing members, investors, employees, attorneys, representatives, affiliates, customers, clients, or any person or entity with which the Company has a business relationship; (c) induce or encourage others, to disparage the Company, its officers, directors, managing members, investors, employees, attorneys, representatives, affiliates, customers, clients, or any person or entity with which the Company has a business relationship. This Paragraph shall not be construed to prohibit you from participating in the activities described in Paragraph D. 10.

11. Nothing in this agreement shall be construed to prohibit you from reporting possible violations of federal or state law or regulations to any governmental agency or self-regulatory organization, or making other disclosures that are protected under whistleblower or other provisions of any applicable federal or state law or regulations. Nothing contained in this Letter Agreement shall prohibit you from filing a charge with, or participating in any investigation or proceeding conducted by, the EEOC, or other federal, state or local government agency, except

that you understand and agree that you will not be able to recover monetary or equitable relief of any kind from Releasees in connection with any such charged filed by you or on your behalf in connection with any action filed by a third party with respect to the claims you are waiving in this Letter Agreement. Additionally, nothing in this Letter Agreement shall constitute a waiver of any of the Excluded Claims.

12. You agree that on the Separation Date, you will immediately return to the undersigned all property of the Company and/or any of the other Releasees that you have, including but not limited to records and materials, business and client information and files, cardkey access to Company offices, remote access card, desktop and laptop computer, cell phone, smartphone or other electronic device, keys, and corporate credit cards. You agree that on the Separation Date, you will have no electronic versions of the Company's documents and other materials in your possession. Notwithstanding the foregoing, you may retain a copy of your contacts database and copies of personal documents, including documents related to your employment terms, compensation, employee benefits, business expenses, federal, state and local taxes, diaries and calendars.

13. You acknowledge and agree that you are entitled to the reimbursement of COBRA premiums provided for under Paragraph A.5 and the lump-sum payment provided for under Paragraph A.4(iii) of this Letter Agreement (the "Bridge Payment") only if you (i) timely elect and receive COBRA continuation coverage for eighteen months following the last day of the calendar month in which your Separation Date occurs, and (ii) do not become eligible to receive group health plan coverage under another employee benefit plan before August 8, 2018; if either of these conditions are not met, you agree that the Company, may at its discretion, (i) cease making any further payment to you for reimbursement of COBRA premiums, and (ii) off-set against amounts otherwise due you the amounts of any COBRA reimbursements paid to you after you became eligible

for coverage under another employer's plan (the "Alternative Coverage Date")(the "Excess COBRA Payment") and/or the value of that portion of the Bridge Payment attributable to periods after the Alternative Coverage Date (the "Excess Bridge Payment"), and you agree to promptly repay to the Company upon demand the Excess COBRA Payment and/or Excess Bridge Payment (as the case may be).

14. You acknowledge that apart from the payments and benefits that will be provided to you as set forth in this Letter Agreement, you have received all compensation, wages, bonuses, severance or termination pay, stock options, restricted stock units, equity grants, commissions, notice period, leave and/or benefits to which you may have been entitled to under any law, policy or plan of or sponsored by the Company, or pursuant to any prior agreement with the Company and that no other payments or benefits are due or owing to you except as set forth in this Letter Agreement, including any severance payment or benefits under the offer letter, dated September 20, 2014 ("Offer Letter") and the Severance Letter. You further affirm that you have had no known workplace injuries or occupational diseases.

E. **Mutual Understandings.** The parties mutually agree to the following provisions:

1. The Company will instruct its named executive officers not to make any disparaging, critical or otherwise detrimental statements (orally or in writing) to any person or entity concerning you, your business affairs or the circumstances surrounding your employment and separation from the Company; provided that nothing in this Section E(l) shall restrict or otherwise limit the Company from disclosing events or circumstances in such manner at it deems necessary to comply with its disclosure and reporting obligations under applicable law.

2. You will direct requests for references with respect to your employment at the Company to David Guyer who shall respond in a manner consistent with the contents of Exhibit C.

3. It is the Company's policy not to provide the reasons for any employee's departure unless required by law. Therefore, if asked for additional information beyond that provided in Exhibit C, any prospective employer who makes an inquiry to David Guyer about your employment shall be directed to contact the Company's Head of Human Resources or her designee, who will confirm only the dates of your employment, the positions you held, and your compensation (provided that compensation information will be provided only if you submit written authorization releasing this information to the Company's Head of Human Resources or her designee or to the extent required by subpoena, court order or law).

4. Notwithstanding the foregoing Paragraphs E.1, E.2 and E.3, nothing herein shall limit the Company's ability to make any disclosures required by the securities laws or the rules and regulations of the SEC or of any stock exchange on which

the Company's shares are listed, including the filing of a Current Report on Form 8-K to disclose the fact of your resignation and the financial arrangements memorialized hereby, the inclusion of information regarding compensation paid to you as required in any filing with the SEC made by the Company and the filing of this Agreement as an exhibit to the Company's periodic reports filed pursuant to the Securities Exchange Act.

5. Nothing herein is intended to or shall be deemed to constitute an admission that the Company or any of the other Releasees have violated any federal, state or local law (statutory or decisional), ordinance or regulation, breached any contract, or committed any wrongdoing whatsoever against you or otherwise. Neither this Letter Agreement nor any of its terms may be used as an admission or introduced as evidence as to any issue of law or fact in any proceeding, suit or action, other than an action to enforce this Letter Agreement. Moreover, by signing this Letter Agreement you acknowledge that you are not aware of any wrongdoing or fraudulent or unlawful conduct on the part of the Company or the Releasees.

6. In the event that any provision of this Letter Agreement is held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions will not in any way be affected or impaired thereby. Moreover, if any provision contained in this Letter Agreement is held to be excessively broad as to duration, scope, activity or subject, that provision will be construed by limiting and reducing it so as to be enforceable to the maximum extent compatible with applicable law.

7. This Letter Agreement, and any attachments and exhibits hereto, together with the Covenant Agreement referenced in Paragraph D.4 above, and any documents relating to the options and restricted stock units referenced in Paragraph A.6 above, constitutes the entire agreement between you and the Company with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements relating thereto, whether written or oral, with the exception of any agreements or portions thereof expressly described herein as imposing continuing rights and obligations; provided that the "Modified Cutback" provisions (Section 3) of the severance letter between you and the Company, dated May 4, 2015 shall remain applicable (as necessary) to any payments under this Letter Agreement. You represent that in executing this Letter Agreement, you have not relied on any representation or statement not set forth herein. No amendment, modification or waiver of this Letter Agreement shall be valid or binding upon the parties unless in writing and signed by both parties.

8. This Letter Agreement will be governed by and construed in accordance with the laws of the State of New York, except as may be preempted by federal law. This Letter Agreement is binding upon, and shall inure to the benefit of, the parties and their respective heirs, executors, administrators, successors and assigns.

9. Payments under this Agreement are intended to be exempt from, or otherwise comply with, Section 409A of the Internal Revenue Code as amended ("Section

409A"). You agree to fully indemnify and hold harmless the Company and the Releasees from payment of taxes, interest or penalties that may be required by any governmental agency at any time as a result of the payments set forth herein, except that the Company shall make all required payroll tax payments as required by applicable law in connection with base salary or any other covered compensation paid to you through the Separation Date. Set forth in Exhibit D are additional provisions relating to Section 409A and applicable to this Agreement.

10. During the Designated Employee Period and the Consultancy Period, you agree to abide by the Company's Insider Trading Policy. Thereafter, you shall not be subject to the blackout periods in the Company's Insider Trading Policy and, in accordance with the terms of the applicable grant agreements and stock incentive plans, you will be permitted to exercise any vested Stock Grants and dispose of any underlying shares in the Company, subject to any laws governing insider trading and the expiration of any exercise period.

11. Your Offer Letter and the Severance Letter are superseded by this Letter Agreement and the terms of the Offer Letter and Severance Letter have no further force or effect.

F. Obligations Unrelated to This Letter Agreement.

Regardless of whether you sign this Letter Agreement, you and the Releasees will have the following rights and obligations:

1. You will be paid for all accrued vacation days that remain unused as of the Separation Date, with such payment occurring within ten (10) days of the Separation Date.

2. Your participation in the Company's 401(k)/retirement plan(s) will cease on the Separation Date. You will receive any accrued vested benefits under this plan(s) in accordance with the terms of the plan and applicable law. Separate information will be given to you regarding these benefits.

3. If covered, your group health/dental/vision coverage will continue through the last date of the month in which your Separation Date occurs. You will be given separate information regarding your right to continue your group health/dental/vision coverage, as required by the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA"). All COBRA rights are subject to your completion and submission of the proper forms in the times allotted.

4. You may be eligible to convert your Company-provided life insurance policy to an individual policy. Information about conversion of life insurance benefits will be sent to you separately.

G. Consideration Period.

By signing this Letter Agreement in the space provided below and returning it to the undersigned, you are confirming your acceptance of the terms and conditions set forth herein, and you are acknowledging the following:

1. The obligations as set out in this Letter Agreement represent a complete waiver and release of all rights and claims that you have or may have against the Releasees, as provided in Paragraph D.1 above. Accordingly, you should review it carefully before signing it.

2. You are advised to consult with an attorney of your choice before signing this Letter Agreement.

3. To accept this Letter Agreement, you must sign, have notarized, and deliver the Letter Agreement to **Amy Sheehan**, at the address above.

4. By signing this Letter Agreement, you acknowledge that you have carefully read this Letter Agreement in its entirety, you fully understand the significance of all the terms and conditions of this Letter Agreement and have had a reasonable opportunity to discuss them with an attorney of your choice, and you are signing this Letter Agreement voluntarily and of your own free will and agreeing to all the terms and conditions contained herein.

5. This Letter Agreement will become effective after you sign this Letter Agreement (the "Effective Date").

We wish you the best in your future endeavors.

Sincerely yours,

/s/ Amy Sheehan
Amy Sheehan
Vice President, Human Resources
Ophthotech

Agreed to and Accepted by:

/s/ Michael G. Atieh
Michael G. Atieh

Date: 1-4-16

State of Florida)
) ss.:
County of Martin)

On this 4 day of Jan., 2016, before me, a Notary Public of the State of , personally appeared Michael G. Atieh, who executed the foregoing Letter Agreement and did then and there acknowledge to me that he voluntarily executed the same.

Notary Public

BECKY BICH NGOC TRAN
MY COMMISSION #FF013190
EXPIRES June 28, 2017
(407) 398-0153 FloridaNotaryService.com

1-4-16

EXHIBIT A

SUPPLEMENTAL GENERAL RELEASE

i. Agreement and General Release ("General Release") by and between Ophthotech Corporation ("Ophthotech" or the "Company") and Michael G. Atieh ("you"), in consideration of the payments and promises contained in the Letter Agreement dated January 4, 2016 (the "Letter Agreement"), you voluntarily agree to the following:

ii. You, for yourself and for your heirs, executors, administrators, successors and assigns (referred to collectively as "Releasor"), forever release and discharge the Company and any and all of the Company's past and present affiliates, parent entities, subsidiaries, divisions, offices, branches, assets, employee benefit plans, funds, investment funds, successors and assigns, and any and all of its and their past and present officers, directors, partners, members, shareholders, agents, attorneys, employees, agents, trustees, fiduciaries, representatives, administrators, successors and assigns (whether acting in such capacity or otherwise) (referred to collectively as the "Releasees"), from any and all claims, demands, causes of action, fees and liabilities of any kind whatsoever, whether known or unknown, which Releasor ever had, now has or may have against Releasees or any of them by reason of any actual or alleged act, omission, transaction, practice, conduct, occurrence or other matter from the beginning of the world up to and including the date you sign this General Release.

iii. Without limiting the generality of the foregoing general release, by signing this General Release you agree that Releasor is releasing Releasees from any and all claims arising out of your employment with the Company, the terms and conditions of such employment and/or the termination of such employment, including but not limited to: (i) any claim under the Employee Retirement Income Security Act of 1974 ("ERISA"), Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Civil Rights Act of 1866, the Age Discrimination in Employment Act (including the Older Workers Benefit Protection Act), the Equal Pay Act, the Americans with Disabilities Act, the Family and Medical Leave Act, the National Labor Relations Act, the Sarbanes-Oxley Act, the Dodd-Frank Act, the New York State Human Rights Law, the New York City Human Rights Law, the New York Labor Law, the New York Minimum Wage Act, the statutory provisions regarding retaliation/discrimination under the New York Worker's Compensation Law, the New York City Earned Sick Time Act, Florida Civil Rights Act of 1992 f/k/a Human Rights Act of 1977, Fla. Stat. § 760.01 *et seq*.; the Florida Equal Pay Law, Fla. Stat. § 448.07, Fla. Stat. § 725.07, Florida AIDS Act, Fla. Stat. § 760.50, Florida Law Sickle-Cell Trait Discrimination Law, Fla. Stat. §§ 448.075, 448.076, Florida Private Whistleblower Protection Law, Fla. Stat. § 448.101 *et seq*., the Florida Public Whistle-Blower's Act, Fla. Stat. § 112.3187 *et seq*.; Florida Workers' Compensation Retaliation Law, Fla. Stat. § 440.205, Florida Unpaid Wages Law, Fla. Stat. § 448.08, Florida Minimum Wage Act, Fla. Stat. §§ 448.109, 448.110, Article X Section 24 of the Florida Constitution, Florida Leave to Victims of Domestic Violence Act, Fla. Stat. § 741.313, and waivable rights under the Florida Constitution, the New Jersey Law Against Discrimination, the New Jersey Family Leave Act, the New Jersey Conscientious Employee Protection Act, the New Jersey Wage Payment Law, the New Jersey Wage and Hour Law, the New Jersey Equal Pay Law, the New Jersey

Smoker's Rights Act, the New Jersey Lie Detector Test Law, the New Jersey Jury Duty Employee Protection Law, the New Jersey Worker Freedom From Intimidation Act, the New Jersey Political Activities of Employees Law, the New Jersey Fair Credit Reporting Act, the retaliation provisions of the New Jersey Workers' Compensation Law, the New Jersey Security and Financial Empowerment Act, the New Jersey Social Media Privacy law, the New Jersey Opportunity to Compete Act, all New Jersey Municipal Sick Leave Laws, any claims for violation of the New Jersey State Constitution, and any other applicable federal, state or local statute (all as amended); (ii) any claims for violation of any statutory or administrative rules,

regulations or codes; (iii) any other claim of discrimination, harassment or retaliation in employment (whether based on federal, state or local law, statutory or decisional); (iv) any claim sounding in tort (whether intentional or unintentional), common law or contract (express or implied), wrongful discharge, whistleblowing, detrimental reliance, defamation; wrongful discharge, retaliatory discharge, and (v) any claim for attorney's fees, costs, disbursements, emotional distress, pain and suffering, damages of any kind, including compensatory and/or punitive damages.

iv. Nothing contained in this General Release shall prohibit you from filing a charge with, or participating in any investigation or proceeding conducted by, the EEOC, SEC, or other federal, state or local government agency, except that you understand and agree that you will not be able to recover monetary or equitable relief of any kind from Releasees in connection with any such charged filed by you or on your behalf in connection with any action filed by a third party with respect to the claims you are waiving in this General Release. Additionally, nothing in this General Release will affect or constitute a waiver of (i) claims arising after the date you sign it; (ii) claims that cannot be waived by law; (iii) any right to make any disclosure to or cooperate with the United States Securities and Exchange Commission ("SEC") pursuant to Section 21F(b) of the Securities and Exchange Act or to receive a reward from the SEC in connection therewith; (iv) claims for accrued, vested benefits under any employee pension plan of the Company in accordance with the terms of the official plan documents and applicable law; (v) claims for reimbursement through the Company's Flexible Spending Account Program; (vi) claims for benefits under the Company's group medical, vision and dental and disability plans in accordance with the terms of such plans and applicable law; (vii) your rights with respect to matters arising under this Letter Agreement, including without limitation matters arising after the execution date of the Letter Agreement in connection with the Stock Grants; (viii) your rights to indemnification or coverage arising under the Company's foundation documents or bylaws, any applicable Directors and Officer policy and applicable laws; or (ix) your rights as a shareholder in connection with any matter arising after the execution date of the Letter Agreement under any equity interest (the "Excluded Claims").

v. You acknowledge that you may hereafter discover claims or facts in addition to or different from those which you now know or believe to exist with respect to the subject matter of the Letter Agreement and which, if known or suspected at the time you execute this General Release, may have materially affected this General Release and your decision to enter into it. Nevertheless, you hereby waive any right, claim or cause of action that might arise as a result of such different or additional claims or facts.

vi. You acknowledge that you: (a) have carefully read this General Release in its entirety; (b) were provided twenty-one (21) days to consider its terms; (c) were advised by the Company in writing to consult with an attorney of your choosing in connection with this General Release; (d) fully understand the significance of all of the terms and conditions of this General Release and have discussed them with your independent legal counsel, or had a reasonable opportunity to do so; (e) have had answered to your satisfaction any questions you have asked with regard to the meaning and significance of any of the provisions of this General Release; and (f) are signing this General Release voluntarily and of your own free will and agree to abide by all the terms and conditions contained herein.

vii. After executing this General Release, you will have seven (7) days to revoke your signature (such period, the "Revocation Period"). This Release will not become effective, and the Company will not provide the consideration pursuant to Section A of the Letter Agreement, until after you sign this General Release and the Revocation Period expires without revocation (the "Execution Date"). Any revocation of this General Release is requested to be in writing and delivered personally or by overnight courier to **Amy Sheehan**.

NOT TO BE EXECUTED BEFORE SEPARATION DATE

SIGNATURE PAGE FOLLOWS

Agreed to and Accepted by:

/s/ Michael G. Atieh
Michael G. Atieh

Date: 1-4-16

State of Florida)
) ss.:
County of Martin)

On this 4 day of Jan, 2016, before me, a Notary Public of the State of , personally appeared Michael G. Atieh, who executed the foregoing Supplemental General Release and did then and there acknowledge to me that he voluntarily executed the same.

Notary Public

1-4-16

EXHIBIT D - SECTION 409A MATTERS

(a) The intent of the parties is that payments and benefits under this Letter Agreement ("Agreement") comply with or be exempt from Section 409A and the regulations and guidance promulgated thereunder and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith.

(b) A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a termination of employment unless such termination is also a "separation from service" within the meaning of Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." If Michael G. Atieh ("the Executive") is deemed on the date of termination to be a "specified employee" within the meaning of that term under Section 409A(a)(2)(B), then with regard to any payment or the provision of any benefit that is specified herein as subject to this Section or is otherwise considered "deferred compensation" under Section 409A (whether under this Agreement, any other plan, program, payroll practice or any equity grant) and is due upon the Executive's separation from service, such payment or benefit shall not be made or provided until the date which is the earlier of (A) the expiration of the six (6)-month period measured from the date of such "separation from service" of the Executive, and (B) the date of the Executive's death (the "Delay Period") and this Agreement and each such plan, program, payroll practice or equity grant shall hereby be deemed amended accordingly.

(c) All expenses or other reimbursements hereunder that are taxable income to the Executive shall in no event be paid later than the end of the calendar year next following the calendar year in which the Executive incurs such expense or pays such related tax. With regard to any provision herein that provides for reimbursement of costs and expenses or in-kind benefits, except as permitted by Section 409A, (i) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (ii) the amount of expenses eligible for reimbursement, of in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year, *provided* that the foregoing clause (ii) shall not be violated without regard to expenses reimbursed under any arrangement covered by Internal Revenue Code Section 105(b) solely because such expenses are subject to a limit related to the period the arrangement is in effect and (iii) such payments shall be made on or before the last day of the Executive's taxable year following the taxable year in which the expense occurred.

(d) For purposes of Section 409A, the Executive's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Whenever a payment under this Agreement specifies a payment period with reference to a number of days (e.g., "payment shall be made within thirty (30) days following the date of termination"), the actual date of payment within the specified period shall be within the sole discretion of the Company.

One Penn Plaza
19th Floor
New York, NY 10119
(212) 845-8200

July 15, 2015

Mr. Henric Bjarke

Dear Henric:

It is my pleasure to extend to you this offer of employment with Ophthotech Corporation (the "Company"). On behalf of the Company, I set forth below the terms of your employment:

1. **Employment.** You will be employed to serve on a full-time basis as the Company's Senior Vice President & Chief Commercial Officer, effective August 31, 2015 (the "Start Date"), As the Company's Senior Vice President & Chief Commercial Officer you will report to the Company's Chief Executive Officer and have the duties and responsibilities that are consistent with your position and such other duties as may from time to time be assigned to you by the Company, The Company reserves the right to change your title and responsibilities at any time, with or without notice. You shall perform and discharge faithfully and diligently your duties and responsibilities hereunder. You agree to devote your full business time, efforts, skill, knowledge, attention and energies to the advancement of the Company's business and interests and to the performance of your duties and responsibilities as an employee of the Company. You agree to abide by the rules, regulations, instructions, personnel practices and policies of the Company and any changes therein that may be adopted from time to time by the Company. Notwithstanding the foregoing, you may continue to serve as a member of the board of directors of the companies for which you currently serve or are engaged with that will he creating a board, may serve on civic, charitable, educational, religious, public interest or public service boards, and may manage your personal and family investments, in each case, to the extent such activities, whether individually or in the aggregate, do not materially interfere or conflict with the performance of your duties and responsibilities for the Company.

2. **Base Salary.** Your base salary will be at the rate of $15,625 per semi-monthly pay period (which if annualized equals $375,000), less all applicable taxes and withholdings, to be paid in installments in accordance with the Company's regular payroll practices.

Such base salary may be adjusted from time to time in accordance with normal business practices and in the sole discretion of the Company.

3. **Discretionary Bonus.** Following the end of each calendar year and subject to the approval of the Company's Board of Directors (the "Board"), you will be eligible for a performance bonus of up to 40% of your annualized base salary (the "Target Bonus"), based on your personal performance and the Company's performance during the applicable calendar year, as determined by the Company in its sole discretion. In any event, you must be an active employee of the Company on the date the bonus is distributed in order to be eligible for and to earn any bonus award, as it also serves as an incentive to remain employed by the Company. You will be eligible for a pro-rata discretionary bonus for 2015.

4. **Equity.** In connection with the commencement of your employment with the Company, you will be eligible to receive an option to purchase 120,000 shares of the Company's common stock (the "Option"), subject to the approval by the Board (acting in its sole discretion) of such option grant. This option grant is also contingent upon your execution of the stock option agreement covering the Option. If the Board approves the grant, the Option would be issued on the Start Date with an exercise price equal to the fair market value of the Company's common stock (as determined by the Board) as of the date of grant and would vest over a four-year period, with 25% of the shares vesting on the first anniversary of the Start Date and the remainder of the shares vesting in equal monthly amounts thereafter until the fourth anniversary of the Start Date, pursuant to the terms of the stock option agreement and subject to your continued employment with the Company. You would be eligible for an annual performance-based option grant in January of 2016 on a pro-rata basis. If your employment with the Company, or its successor, is terminated by the Company without Cause (as defined in Section 1c of the Severance Agreement dated July 15, 2015) or by you for Good Reason (as defined in Section 1d of the Severance Agreement dated July 15, 2015) within the one (1) year period following a Change in Control Event (as defined in your option agreement), then, 100% of the portion of the Option that is not then-vested, and which has not been exercised, cancelled or forfeited, shall become vested and exercisable in full as of the date of such termination.

5. **Benefits.** You may participate in any and all benefit programs that the Company establishes and makes generally available to its employees from time to time, provided that you are eligible under (and subject to all provisions of) the plan documents that govern those programs. Benefits are subject to change at any time in the Company's sole discretion.

6. **Vacation.** You will be eligible for a maximum of four (4) weeks of paid vacation per calendar year to be taken at such times as may be approved in advance by the Company. Vacation days for which you are eligible shall accrue pro rata on a monthly basis during the period that you are employed during each calendar year.

7. **Sign-On Bonus.** Ophthotech will pay you a sign-on bonus of $35,000, less

applicable taxes and withholdings, payable in the first pay period after you join. Ophthotech reserves the right to require repayment of this amount should you voluntarily leave employment during your first 12 months with the Company.

8. **Relocation.** Ophthotech's relocation company will assist you in your move and Ophthotech will pay for the following relocation expenses:

- Packing and movement of your household goods.
- Lease cancellation fees and any excess costs on your current apartment in Switzerland.
- Three (3) months of temporary housing and storage.
- Home sale closing costs will be covered through the Buyer Value Option (BVO) program on your home in Connecticut. Details of this program will be explained to you by the relocation company.
- One way economy transportation for you and your family to relocate to the New York/New Jersey area. This includes airfare, car rental and reasonable meals for the trip.
- Home purchasing closing costs associated with you finding a home in the New Jersey area.
- Up to one (1) month of a car rental while your automobile is in transit.
- One (5-day) house hunting trips for you and your family to help you locate a residence. The house hunting trips will include economy air fare, reasonable daily meals, a car rental and hotel accommodations.
- One (1) month of salary to help you cover any relocation incidentals. This will be paid out at the time you officially relocate.
- Relocation to the New York/New Jersey area is required within 6-12 months of joining.
- Our expectation is that you immediately begin working out of the New York/New Jersey office on a weekly basis regardless of when you relocate your residence.
- If you voluntarily resign from the Company within twenty-four months of joining, a pro-rated portion of your relocation packaged will be required for re-payment. Details will be given in a separate relocation agreement.

9. **Invention, Non-Disclosure, Non-Competition and Non-Solicitation Agreement.** As a condition of employment, you will be required to execute the attached Invention, Non-Disclosure, Non-Competition and Non-Solicitation Agreement.

10. **No Conflict.** You represent that you are not bound by any employment contract, restrictive covenant or other restriction preventing you from entering into employment with or carrying out your responsibilities for the Company, or which is in any way inconsistent with the terms of this offer letter.

11. **Proof of Legal Right to Work.** You agree to provide to the Company, within three (3) days of your date of hire, documentation proving your eligibility to work in the United States, as required by the Immigration Reform and Control Act of 1986. You may need a work visa in order to be eligible to work in the United States. If that is the case, your

employment with the Company will be conditioned upon your obtaining a work visa in a timely manner as determined by the Company.

12. **At-Will Employment.** This letter shall not be construed as an agreement, either express or implied, to employ you for any stated term, and shall in no way alter the Company's policy of employment at-will, under which both the Company and you remain free to end the employment relationship for any reason, at any time, with or without cause or notice, Although your job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at-will" nature of your employment may only be changed by a written agreement signed by you and the Company's Chief Executive Officer that expressly states the intention to modify the at-will nature of your employment. Similarly, nothing in this letter shall be construed as an agreement, either express or implied, to pay you any compensation or grant you any benefit beyond the end of your employment with the Company. This letter supersedes all prior understandings, whether written or oral, relating to the terms of your employment.

13. **Successors and Assigns.** The terms of this letter shall be binding upon and inure to the benefit of you and the Company and their respective successors and assigns, including any corporation with which, or into which, the Company may be merged or which may succeed to the Company's assets or business; *provided, however,* that your obligations are personal and may not be assigned by you. You expressly consent to be bound by the provisions hereof for the benefit of the Company or any subsidiary or affiliate thereof to whose employ you may be transferred without the necessity that this letter be re-signed at the time of such transfer.

14. **Governing Law.** This letter shall be governed by and construed in accordance with the laws of the State of New York (without reference to the conflicts of laws provisions thereof). Any action, suit, or other legal proceeding which is commenced to resolve any matter arising under or relating to any provision of this letter shall be commenced only in a court of the State of New York (or, if appropriate, a federal court located within New York), and the Company and you each consents to the jurisdiction of such a court. The Company and you each hereby irrevocably waive any right to a trial by jury in any action, suit or other legal proceeding arising under or relating to any provision hereof.

If this letter correctly sets forth the terms under which you will be employed by the Company, please sign the enclosed duplicate of this letter in the space provided below and return it to me, along with a signed copy of the Invention, Non-Disclosure, Non-Competition and Non-Solicitation Agreement. If you do not accept this offer by July 22, 2015 the offer will be deemed withdrawn.

Sincerely,

By: /s/ Amy R. Sheehan
Amy R. Sheehan
Vice President, Human Resources

The foregoing correctly sets forth, the terms of my at-will employment with Ophthotech Corporation. I am not relying on any representations other than those set forth above.

/s/ Henric Bjarke	7/16/15
Henric Bjarke	Date

Exhibit 10.32

One Penn Plaza, Suite 19th Floor
New York, NY 10119
(212) 845-8200

July 15, 2015

Mr. Henric Bjarke
c/o Ophthotech Corporation
One Penn Plaza, Suite 19th Floor
New York, NY 10119

Dear Henric:

The board of directors (the "Board") of Ophthotech Corporation (the "Company") has provided for the following severance benefits to be provided to you in the event of your termination of employment with the Company, on the terms and conditions set forth herein.

1. **Severance**.

(a) If your employment is terminated (1) at any time by the Company without Cause or by you for Good Reason (as such terms are herein defined) or (2) within one year following a Change in Control Event (as defined in the Company's 2013 Stock Incentive Plan), by the Company, or its successor, without Cause or by you for Good Reason, the Company or its successor will (i) pay you in a lump sum on the Payment Date (as herein defined) (A) an amount equal to twelve (12) months of your then-current base salary, less standard employment-related withholdings and deductions and (B) an amount equal to a pro-rated portion of your Target Bonus (as such term is defined in your offer of employment with us dated July 15, 2015 (the "Offer Letter")) for the year in which your employment terminates, provided, however, that if your employment is terminated under the circumstances described in (2) of this Section 1(a), the Company or its successor will instead pay you an amount equal to your Target Bonus for the year in which your employment terminates, in either case, without regard to whether the performance goals with respect to such Target Bonus have been established or met and less standard employment-related withholdings and deductions, and (ii) provided you elect to continue your and your eligible dependents' participation in the Company's medical and dental benefit plans pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1986 ("COBRA"), reimburse you for the monthly premium to continue such coverage for the lesser of the twelve (12) full calendar months immediately following the month in which the termination of your employment occurs and the end of the calendar month in which you become eligible to receive group health plan coverage under another employee benefit plan. Notwithstanding the foregoing, if the reimbursement of monthly premiums would otherwise violate the nondiscrimination rules or cause the reimbursement of claims to be taxable under the Patient Protection and Affordable Care Act of 2010, together with the Health Care and Education Reconciliation Act of 2010 (collectively, the "Healthcare Reform Act") or Section 105(h) of the

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Internal Revenue Code of 1986, as amended (the "Code"), these payments shall be treated as taxable payments to you and you shall be subject to imputed income tax treatment to the extent necessary to eliminate any discriminatory treatment or taxation under the Act or Section 105(h).

(b) Notwithstanding the foregoing, the Company shall not be obligated to pay you the severance payments provided for herein unless you have timely executed (and not revoked) a separation agreement in a form to be provided by the Company. Such separation agreement must be executed and become binding and enforceable within sixty (60) calendar days after the effective date of your termination of employment (such 60th day, the "Payment Date"); provided however, that if the 60th day following the date of termination occurs in the next calendar year following the date of termination, then the Payment Date shall be no earlier than January 1 of such following calendar year.

(c) For purposes hereof, "Cause" shall mean that: (i) you failed to attempt in good faith, refused or willfully neglected to perform and discharge your material duties and responsibilities; (ii) you have been convicted of, or pled *nolo contendere* to, a felony or other crime involving fraud or moral turpitude; (iii) you breached your fiduciary duty of loyalty to the Company, or acted fraudulently or with material dishonesty in discharging your duties to the Company; (iv) yon undertook an intentional act or omission of misconduct that materially harmed or was reasonably likely to materially harm the business, interests, or reputation of the Company; (v) you materially breached any material provision of this letter or any other agreement with the Company; or (vi) you materially breached any material provision of any Company code of conduct or ethics policy. Notwithstanding the foregoing, "Cause" shall not be deemed to have occurred unless; (A) the Company provides you with written notice that it intends to terminate your employment hereunder for one of the grounds set forth in subsections (i), (v) or (vi) within sixty (60) days of such reason(s) occurring, (B) if such ground is capable of being cured, you have failed to cure such ground within a period of thirty (30) days from the date of such written notice, and (C) the Company terminates your employment within six (6) months from the date that Cause first occurs.

(d) For purposes hereof, "Good Reason" shall mean, without your written consent: (i) any change in your position or reporting relationship with the Company that diminishes in any material respect your authority, duties or responsibilities; (ii) any material reduction in your base compensation; (iii) a material change in the primary geographic location at which services are to be performed by you (unless the new location is closer to your primary residence than the prior location); or (iv) a material breach of any provision hereof by the Company or any successor or assign. Notwithstanding the foregoing, "Good Reason" shall not be deemed to have occurred unless: (A) you provide the Company with written notice that you intend to terminate your employment hereunder for one of the grounds set forth in subsections (i), (ii), (iii) or (iv) of the immediately preceding sentence within sixty (60) days of such reason(s) occurring, (B) if such ground is capable of being cured, the Company has failed to cure such ground within a period of thirty (30) days from the date of such written notice, and (C) you terminate your employment within six (6) months from the date that Good Reason first occurs. For purposes of clarification, the above-listed conditions shall apply separately to each occurrence of Good Reason and failure to adhere to such conditions in the event of Good Reason shall not disqualify you from asserting Good Reason for any subsequent occurrence of Good Reason.

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2. **Equity Acceleration**. If your employment with the Company, or its successors terminated by the Company or such successor without Cause or by you for Good Reason within the one (1) year period following a Change in Control Event, then the then-unvested portion of any equity awards held by you that vest solely based on the passage of time shall immediately vest in full and become exercisable or free from forfeiture or repurchase, as applicable, as of the date of such termination.

3. **Modified Cutback**.

(a) Notwithstanding any other provision of this letter agreement, the Offer Letter, or any other agreements between you and us, except as set forth in Section 3(b) hereof, in the event that the Company undergoes a "Change in Ownership or Control" (as defined below), the Company shall not be obligated to provide you a portion of any "Contingent Compensation Payments" (as defined below) that you would otherwise be entitled to receive to the extent necessary to eliminate any "excess parachute payments" (as defined in Section 280G(b)(l) of the Code) for you. For purposes of this Section 3(a), the Contingent Compensation Payments so eliminated shall be referred to as the "Eliminated Payments" and the aggregate amount (determined in accordance with Treasury Regulation Section 1.280G-1, Q/A-30 or any successor provision) of the Contingent Compensation Payments so eliminated shall be referred to as the "Eliminated Amount."

(b) Notwithstanding the provisions of Section 3(a), no such reduction in Contingent Compensation Payments shall be made if (1) the Eliminated Amount (computed without regard to this sentence) exceeds (2) 100% of the aggregate present value (determined in accordance with Treasury Regulation Section 1.280G-1, Q/A-31 and Q/A-32 or any successor provisions) of the amount of any additional taxes that would be incurred by you if the Eliminated Payments (determined without regard to this sentence) were paid to you (including, state and federal income taxes on the Eliminated Payments, the excise tax imposed by Section 4999 of the Code payable with respect to all of the Contingent Compensation Payments in excess of your "base amount" (as defined in Section 280G(b)(3) of the Code), and any withholding taxes). The override of such reduction in Contingent Compensation Payments pursuant to this Section 3(b) shall be referred to as a "Section 3(b) Override." For purpose of this paragraph, if any federal or state income taxes would be attributable to the receipt of any Eliminated Payment, the amount of such taxes shall be computed by multiplying the amount of the Eliminated Payment by the maximum combined federal and state income tax rate provided by law.

(c) For purposes of this Section 3 the following terms shall have the following respective meanings:

(i) "Change in Ownership or Control" shall mean a change in the ownership or effective control of the Company or in the ownership of a substantial portion of the assets of the Company determined in accordance with Section 280G(b)(2) of the Code.

(ii) "Contingent Compensation Payment" shall mean any payment (or benefit) in the nature of compensation that is made or made available (under this Agreement or otherwise) to a "disqualified individual" (as defined in Section 280G(c) of the Code) and

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that is contingent (within the meaning of Section 280G(b)(2)(A)(i) of the Code) on a Change in Ownership or Control of the Company.

(d) Any payments or other benefits otherwise due to you following a Change in Ownership or Control that could reasonably be characterized (as determined by the Company) as Contingent Compensation Payments (the "Potential Payments") shall not be made until the dates provided for in this Section 3(d). Within 30 days after each date on which you first become entitled to receive (whether or not then due) a Contingent Compensation Payment relating to such Change in Ownership or Control, the Company shall determine and notify you (with reasonable detail regarding the basis for its determinations) (1) which Potential Payments constitute Contingent Compensation Payments, (2) the Eliminated Amount and (3) whether the Section 3(b) Override is applicable, Within 30 days after delivery of such notice to you, you shall deliver a response to the Company (the "Executive Response") stating either (A) that you agree with the Company's determination pursuant to the preceding sentence or (B) that you disagree with such determination, in which case you shall set forth (x) which Potential Payments should be characterized as Contingent Compensation Payments, (y) the Eliminated Amount, and (z) whether the Section 3(b) Override is applicable. In the event that you fail to deliver an Executive Response on or before the required date, the Company's initial determination shall be final. If you state in the Executive Response that you agree with the Company's determination, the Company shall make the Potential Payments to you within three business days following delivery to the Company of the Executive Response (except for any Potential Payments which are not due to be made until after such date, which Potential Payments shall be made on the date on which they are due). If you state in the Executive Response that you disagree with the Company's determination, then, for a period of 60 days following delivery of the Executive Response, you and the Company shall use good faith efforts to resolve such dispute. If such dispute is not resolved within such 60-day period, such dispute shall be settled exclusively by arbitration in New York, New York, in accordance with the rules of the American Arbitration Association then in effect. Judgment may be entered on the arbitrator's award in any court having jurisdiction. The Company shall, within three business days following delivery to the Company of the Executive Response, make to you those Potential Payments as to which there is no dispute between the Company and you regarding whether they should be made (except for any such Potential Payments which are not due to be made until after such date, which Potential Payments shall be made on the date on which they are due). The balance of the Potential Payments shall be made within three business days following the resolution of such dispute.

(e) The Contingent Compensation Payments to be treated as Eliminated Payments shall be determined by the Company by determining the "Contingent Compensation Payment Ratio" (as defined below) for each Contingent Compensation Payment and then reducing the Contingent Compensation Payments in order beginning with the Contingent Compensation Payment with the highest Contingent Compensation Payment Ratio. For Contingent Compensation Payments with the same Contingent Compensation Payment Ratio, such Contingent Compensation Payment shall be reduced based on the time of payment of such Contingent Compensation Payments with amounts having later payment dates being reduced first. For Contingent Compensation Payments with the same Contingent Compensation Payment Ratio and the same time of payment, such Contingent Compensation Payments shall be reduced on a pro rata basis (but not below zero) prior to reducing Contingent Compensation Payment

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with a lower Contingent Compensation Payment Ratio. The term "Contingent Compensation Payment Ratio" shall mean a fraction the numerator of which is the value of the applicable Contingent Compensation Payment that must be taken into account by you for purposes of Section 4999(a) of the Code, and the denominator of which is the actual amount to be received by you in respect of the applicable Contingent Compensation Payment. For example, in the case of an equity grant that is treated as contingent on the Change in Ownership or Control because the time at which the payment is made or the payment vests is accelerated, the denominator shall be determined by reference to the fair market value of the equity at the acceleration date, and not in accordance with the methodology for determining the value of accelerated payments set forth in Treasury Regulation Section 1.280G-lQ/A-24(b) or (c)).

(f) The provisions of this Section 3 are intended to apply to any and all payments or benefits available to you under this letter agreement or any other agreement or plan of the Company under which you receive Contingent Compensation Payments.

4. **Miscellaneous**.

(a) Code Section 409A. The intent of the parties is that payments and benefits under this letter comply with, or be exempt from, Internal Revenue Code Section 409A and the regulations and guidance promulgated thereunder (collectively "Code Section 409A"). Accordingly, if any provision of this letter is ambiguous, such that one interpretation would subject a payment or benefit to the excise tax imposed by Code Section 409A and an alternative interpretation would not so subject the payment or benefit, the parties intend the interpretation that would not so subject the payment or benefit to apply. With regard to any provision herein that provides for reimbursement of costs and expenses or in-kind benefits, except as permitted by Code Section 409A, (i) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, (ii) the amount of expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year, provided that this clause (ii) shall not be violated with regard to expenses reimbursed under any arrangement covered by Section 105(a) of the Code solely because such expenses are subject to a limit related to the period the arrangement is in effect, and (in) such payments shall be made on or before the last day of your taxable year following the taxable year in which the expense occurred, provided that any tax gross-ups may be reimbursed by the end of the calendar year following the calendar year in which such taxes are remitted to the taxing authorities. For purposes of Code Section 409A, each payment hereunder shall be treated as a separate payment and your right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. In no event may you, directly or indirectly, designate the calendar year of any payment to be made under this letter that is considered nonqualified deferred compensation. Termination of employment as used herein shall mean separation from service within the meaning of Code Section 409A. In the event at the time of any separation from service you are a "specified employee" within the meaning of Code Section 409A, any deferred compensation subject to Code Section 409A payable as a result of such termination shall not be paid prior to the earlier of six (6) months after such termination and your death and shall be paid immediately thereafter.

(b) Governing Law. This letter shall be governed by and construed in accordance with the laws of the State of New York (without reference to the conflicts of laws provisions thereof). Any action, suit, or other legal proceeding which is commenced to resolve any matter arising under or relating to any provision of this letter shall be commenced only in a court of the State of New York (or, if appropriate, a federal court located within New York), and the Company and you each consents to the jurisdiction of such a court. The Company and you each hereby irrevocably waive any right to a trial by jury in any action, suit or other legal proceeding arising under or relating to any provision hereof.

(c) Conflict; Amendment; Counterparts. This letter agreement sets forth the Company's sole obligation, subject to the terms and conditions set forth herein, to provide severance benefits to you. The severance benefits set forth in this letter agreement are therefore in lieu of, and not in addition to, the severance benefits described in Section 6 the Offer Letter or any other provision thereof or any other agreement or arrangement between you and us. Except as modified hereby, the terms of the Offer Letter remain in full force and effect. This agreement may only be modified in a document signed by both the Company and you. This agreement may be executed in counterparts, each of which will be deemed an original, but all of which will he deemed one and the same instrument.

[Remainder of page intentionally left blank]

If the provisions of this agreement are acceptable to you, please sign and date this agreement below and return the signed and dated amendment to me on or before July 22, 2015.

Sincerely,

OPHTHOTECH CORPORATION

By: /s/ Amy R. Sheehan
Amy R. Sheehan
Vice President, Human Resources

ACCEPTED AND AGREED:

/s/ Henric Bjarke
Henric Bjarke

Date: 7/16/2015

Exhibit 10.33

OPHTHOTECH CORPORATION

Nonstatutory Stock Option Agreement

1. Grant of Option.

This agreement evidences the grant by Ophthotech Corporation, a Delaware corporation (the "Company"), on August 31, 2015 (the "Grant Date") to Hemic Bjarke, an employee of the Company (the "Participant"), of an option to purchase, in whole or in part, on the terms provided herein, a total of 120,000 shares (the "Shares") of common stock, $0.001 par value per share, of the Company ("Common Stock") at $44.03 per Share. Unless earlier terminated, this option shall expire at 5:00 p.m., Eastern Time, on August 30, 2025 (the "Final Exercise Date").

The option evidenced by this agreement was granted to the Participant pursuant to the inducement grant exception under NASDAQ Stock Market Rule 5635(c)(4), and not pursuant to the Company's 2013 Stock Incentive Plan (the "Plan") or any equity incentive plan of the Company, as an inducement that is material to the Participant's employment with the Company.

It is intended that the option evidenced by this agreement shall not be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code"). Except as otherwise indicated by the context, the term "Participant", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

2. Vesting Schedule.

Except as otherwise provided herein, this option will become exercisable ("vest") as to 25% of the original number of Shares on one-year anniversary of the Grant Date and as to an additional 2.0833% of the original number of Shares at the end of each successive month following the one-year anniversary of the Grant Date until the fourth anniversary of the Grant Date.

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be in writing, signed by the Participant (or such electronic notice as is approved by the Company), and received by the Company at its principal office, accompanied by this agreement and payment in full as follows:

(1) in cash or by check, payable to the order of the Company;

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(2) by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) to the extent approved by the Board of Directors of the Company (the "Board"), in its sole discretion, by delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their fair market value per share as determined by (or in a manner approved by) the Board (the "Fair Market Value"), provided (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent approved by the Board, in its sole discretion, by delivery of a notice of "net exercise" to the Company, as a result of which the Participant would receive (i) the number of shares underlying the portion of this being exercised, less (ii) such number of shares as is equal to (A) the aggregate exercise price for the portion of this option being exercised divided by (B) the Fair Market Value on the date of exercise;

(5) to the extent permitted by applicable law or approved by the Board, in its sole discretion, by payment of such other lawful consideration as the Board may determine; or

(6) by any combination of the above permitted forms of payment.

The Participant may purchase less than the number of shares covered hereby, provided that no partial exercise of this option may be for any fractional share or for fewer than ten whole shares.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he exercises this option, is, and has been at all times since the Grant Date, an employee, officer or a director of, or consultant or advisor to, the Company or any other entity the employees, officers, directors, consultants, or advisors of which are eligible to receive option grants under the Plan (an "Eligible Participant").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right

to exercise this option shall terminate immediately upon written notice to the Participant from the Company describing such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he is an Eligible Participant and the Company has not terminated such relationship for "cause" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If the Participant, prior to the Final Exercise Date, is terminated by the Company for Cause (as defined in the severance benefits letter agreement, dated as of July 15, 2015, between the Participant and the Company, or any successor agreement thereto (the "Letter Agreement")), the right to exercise this option shall terminate immediately upon the effective date of such termination.

(f) Letter Agreement. Notwithstanding anything to the contrary in this Section 3 or in Section 7, this option shall be subject to any applicable vesting terms set forth in the Letter Agreement.

4. Agreement in Connection with Public Offering.

The Participant agrees, in connection with an underwritten public offering of the Common Stock pursuant to a registration statement under the Securities Act, (i) not to (a) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any other securities of the Company or (b) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of shares of Common Stock or other securities of the Company, whether any transaction described in clause (a) or (b) is to be settled by delivery of securities, in cash or otherwise, during the period beginning on the date of the filing of such registration statement with the Securities and Exchange Commission and ending 180 days after the date of the final prospectus relating to the offering (plus up to an additional 34 days to the extent requested by the managing underwriters for such offering in order to address Rule 2711(f) of the Financial Industry Regulatory Authority or any similar successor provision), and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering. The Company may impose stop-transfer instructions with respect to the shares of Common Stock or other securities subject to the foregoing restriction until the end of the "lock-up" period.

5. Withholding.

No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment

of, any federal, state or local withholding taxes required by law to be withheld in respect of this option. The Participant must satisfy all applicable federal, state, and local or other income and employment tax withholding obligations before the Company will deliver stock certificates or otherwise recognize ownership of Common Stock under this option. The Company may decide to satisfy the withholding obligations through additional withholding on salary or wages. If the Company elects not to or cannot withhold from other compensation, the Participant must pay the Company the full amount, if any, required for withholding or have a broker tender to the Company cash equal to the withholding obligations. Payment of withholding obligations is due before the Company will issue any shares on exercise of this option or at the same time as payment of the exercise price, unless the Company determines otherwise. If approved by the Board, in its sole discretion, a Participant may satisfy such tax obligations in whole or in part by delivery (either by actual delivery or attestation) of shares of Common Stock underlying this option valued at their Fair Market Value; *provided, however*, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Shares used to satisfy tax withholding requirements cannot be subject to any forfeiture, unfulfilled vesting or other similar requirements.

6. Transfer Restrictions.

(a) This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

(b) The Participant agrees that he will not transfer any Shares issued pursuant to the exercise of this option unless the transferee, as a condition to such transfer, delivers to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of Section 4; provided that such a written confirmation shall not be required with respect to Section 4 after the completion of the lock-up period in connection with the Company's underwritten public offering.

7. Adjustments for Changes in Common Stock and Certain Other Events.

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Common Stock other than an ordinary cash dividend, the number and class of securities and exercise price per share of this option shall be equitably adjusted by the Company in the manner determined by the Board. Without limiting the generality of the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to this option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then the Participant, if he exercises this option between the record date and the distribution date for such

stock dividend, shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon exercise of this option, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(b) Reorganization Events. A "Reorganization Event" shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any transfer or disposition of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange or other transaction or (c) any liquidation or dissolution of the Company. In connection with a Reorganization Event, the Board may take any one or more of the following actions with respect to this option (or any portion thereof) on such terms as the Board determines: (i) provide that this option shall be assumed, or substantially equivalent option shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written notice to the Participant, provide that the unexercised portion of this option will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant within a specified period following the date of such notice, (iii) provide that this option shall become exercisable, realizable, or deliverable, or restrictions applicable to this option shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the "Acquisition Price"), make or provide for a cash payment to the Participant with respect to this option equal to (A) the number of shares of Common Stock subject to the vested portion of this option (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such Reorganization Event) multiplied by (B) the excess, if any, of (I) the Acquisition Price over (II) the exercise price of this option and any applicable tax withholdings, in exchange for the termination of this option, (v) provide that, in connection with a liquidation or dissolution of the Company, this option shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings) and (vi) any combination of the foregoing.

For purposes of clause (i) above, this option shall be considered assumed if, following consummation of the Reorganization Event, this option confers the right to purchase, for each share of Common Stock subject to this option immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise of this option to consist solely of such number of shares of common stock of the acquiring or succeeding corporation (or an affiliate thereof) that the Board determined to be equivalent in value (as of the date of such determination or another date specified by the Board)

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to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

8. Miscellaneous.

(a) No Right To Employment or Other Status. The grant of this option shall not be construed as giving the Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with the Participant free from any liability or claim hereunder, except as otherwise expressly provided herein or provided for in the Offer Letter.

(b) No Rights As Stockholder. Subject to the provisions of this option, the Participant shall not have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to this option until becoming the record holder of such shares.

(c) Entire Agreement. This Agreement, together with the Letter Agreement and your offer letter dated July 15, 2015, constitute the entire agreement between the parties, and supersede all prior agreements and understandings, relating to the subject matter hereof.

(d) Amendment. Except with respect to any vesting terms set forth in the Offer Letter, the Board may amend, modify or terminate this Agreement, including but not limited to, substituting another option of the same or a different type and changing the date of exercise or realization. Notwithstanding the foregoing, the Participant's consent to such action shall be required unless (i) the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant, or (ii) the change is permitted under Section 7 and the Offer Letter.

(e) Acceleration. The Board may at any time provide that this option shall become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

(f) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to this Agreement until (i) all conditions of this Agreement have been met to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and regulations and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(g) Administration by Board. The Board will administer this Agreement and may construe and interpret the terms hereof. Subject to the terms and provisions of the Offer Letter, the Board may correct any defect, supply any omission or reconcile any inconsistency in this Agreement in the manner and to the extent it shall deem expedient to carry the Agreement into effect and it shall be the sole and final judge of such expediency. No director or person acting

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pursuant to the authority delegated by the Board shall be liable for any action or determination relating to or under this Agreement made in good faith.

(h) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers hereunder to one or more committees or subcommittees of the Board (a "Committee"). All references herein to the "Board" shall mean the Board or a Committee to the extent that the Board's powers or authority hereunder have been delegated to such Committee.

(i) Severability. The invalidity or unenforceability of any provision hereof shall not affect the validity or enforceability of any other provision hereof, and each such other provision shall be severable and enforceable to the extent permitted by law.

(j) Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than the State of Delaware.

(k) Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one in the same instrument.

The Company has caused this option to be executed by its duly authorized officer.

OPHTHOTECH CORPORATION

By: /s/ David Guyer
Name: David Guyer
Title: Chief Executive Officer

Employee Name: /s/ Henric Bjarke

Date: 9/24/15

OPHTHOTECH
One Penn Plaza, 35th Floor, New York, NY 10119
Phone: 212-845-8200 Fax: 212-845-8250

October 21, 2013
Revised October 22, 2013

Barbara A. Wood, Esq.

Dear Barbara:

On behalf of Opthotech Corporation (the "Company") it is my pleasure to offer you the position of **Senior Vice President, General Counsel & Corporate Secretary** reporting to me in our New York office. The terms of this offer, contingent on a mutually agreed upon start date, are as follows:

1. **Employment.** You will be employed on a full-time basis as the Company's Senior Vice President, General Counsel & Corporate Secretary. You will carry out duties and responsibilities consistent with your position and other duties as may from time to time be assigned to you by the Company. You agree to abide by the practices and policies of the Company and any changes to these that may be adopted from time to time by the Company.

2. **Base Salary.** Your initial biweekly base salary will be $14,038.46, corresponding to an annual salary of $365,000, less all applicable taxes and withholdings, to be paid in accordance with the Company's regular payroll practices. Your base salary may be adjusted from time to time in accordance with normal business practices and in the sole discretion of the Company.

3. **Discretionary Bonus.** Following the end of each calendar year and subject to the approval of the Company's Board of Directors (the "Board"), you will be eligible for a performance bonus of up to 35% of your annualized base salary, based on your personal performance and the Company's performance during the applicable calendar year, as determined by the Company in its sole discretion. To receive a bonus, you must be an active employee on the award date, and you must have been employed for at least 3 months prior to the award date. Bonuses will be pro-rated for employees employed less than a full year on the award date.

4. **Equity.** You will be eligible to receive an option to purchase 70,000 shares of the Company's common stock, subject to the approval by the Board, and contingent upon your execution of the corresponding stock option agreement. This option grant would be issued with an exercise price equal to the fair market value of the Company's common stock (as determined by the Board) as of the date of grant (usually the first

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effective date of your employment) and would vest over a four-year period, pursuant to the terms of the stock option agreement and subject to your continued employment with the Company.

5. **Benefits.** You may participate in any and all benefit programs that the Company establishes and makes generally available to similarly situated employees from time to time, provided that you are eligible under the plan documents that govern those programs. A summary of current benefits is enclosed with this letter. Benefits are subject to change at any time in the Company's sole discretion.

6. **Vacation.** You will be eligible for a maximum of four (4) weeks of paid vacation per calendar year, accrued monthly from your start date. Accrued vacation may not be carried over from year to year and must be taken in accordance with Company policy.

7. **Invention and Non-Disclosure Agreement.** As a condition of employment, you will be required to execute the attached Invention and Non-Disclosure Agreement.

8. **No Conflict.** You represent that you are not bound by any employment contract, restrictive covenant or other restriction preventing you from entering into employment with or carrying out your responsibilities for the Company, or which is in any way inconsistent with the terms of this offer letter.

9. **Proof of Legal Right to Work.** All persons employed in the United States after November 6, 1986 are required to complete an Employment Eligibility Verification Form and submit an original document or documents that establish identify and employment eligibility within 3 business days of starting employment. Your employment with the Company is contingent on your satisfactory completion of this requirement.

10. **At-Will Employment.** This letter shall not be construed as an agreement, either express or implied, to employ you for any stated term, and shall in no way alter the Company's policy of employment at-will, under which both the Company and you remain free to end the employment relationship at any time for any reason. This letter supersedes all prior understandings, whether written or oral, relating to the terms of your employment.

If you decide to accept this offer, and agree to the employment terms set forth in this letter, please sign the enclosed duplicate of this letter in the space provided below and return it to me along with a signed copy of the Invention and Non-Disclosure Agreement. If you do not accept this offer by October 30, 2013, the offer will be deemed withdrawn.

Sincerely,

By: /s/ David Guyer

David Guyer
CEO

The foregoing letter correctly sets forth the terms of my at-will employment with Ophthotech Corporation, which I hereby accept. I am not relying on any representations other than those set forth above.

/s/ Barbara A. Wood	23 Oct 2013
Barbara A. Wood	Date

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Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 No. 333-208893) pertaining to the 2013 Stock Incentive Plan and Inducement Stock Option Grant of Ophthotech Corporation, effective January 6, 2016,

(2) Registration Statement (Form S-8 No. 333-202438) pertaining to the 2013 Stock Incentive Plan and inducement stock options of Ophthotech Corporation, effective March 2, 2015,

(3) Registration Statement (Form S-8 No. 333-193694) pertaining to the 2013 Stock Incentive Plan of Ophthotech Corporation, effective January 31, 2014,

(4) Registration Statement (Form S-8 No. 333-191767) pertaining to the 2013 Stock Incentive Plan and Amended and Restated 2007 Stock Incentive Plan of Ophthotech Corporation, effective October 16, 2013,

of our reports dated February 26, 2016 with respect to the financial statements of Ophthotech Corporation and the effectiveness of internal control over financial reporting of Ophthotech Corporation, included in this Annual Report (Form 10-K) of Ophthotech Corporation for the year ended December 31, 2015.

/s/ Ernst & Young LLP
MetroPark, New Jersey
February 26, 2016

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Exhibit 31.1

CERTIFICATIONS

I, David R. Guyer, M.D., certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2015 of Ophthotech Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2016

By: /s/ DAVID R. GUYER

David R. Guyer, M.D.
Chief Executive Officer
(Principal Executive Officer)

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Exhibit 31.2

CERTIFICATIONS

I, Michael G. Atieh, certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2015 of Ophthotech Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2016

By: /s/ MICHAEL G. ATIEH

Michael G. Atieh
Chief Financial and Business Officer
(Principal Financial Officer)

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Exhibit 32.1

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of Ophthotech Corporation (the "Company") for the fiscal year ended December 31, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, David R. Guyer, M.D., Chief Executive Officer of the Company, hereby certifies, pursuant to Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 26, 2016

By: /s/ DAVID R. GUYER

David R. Guyer, M.D.
Chief Executive Officer
(Principal Executive Officer)

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Exhibit 32.2

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of Ophthotech Corporation (the "Company") for the fiscal year ended December 31, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Michael G. Atieh, Chief Financial Officer of the Company, hereby certifies, pursuant to Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 26, 2016

By: /s/ MICHAEL G. ATIEH

Michael G. Atieh
Chief Financial and Business Officer
(Principal Financial Officer)

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