As filed with the Securities and Exchange Commission on May 5, 2017

Registration No. 333-217418

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

AMENDMENT NO. 1
TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

EyeGate Pharmaceuticals, Inc.

(Exact name of registrant as specified in its Charter)

Delaware	**2834**	**98-0443284**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification No.)**

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271 Waverley Oaks Road, Suite 108, Waltham, MA 02452
(781) 788-9043

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

Stephen From
President and Chief Executive Officer
EyeGate Pharmaceuticals, Inc.
271 Waverley Oaks Road, Suite 108, Waltham, MA 02452
(781) 788-9043

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

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

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

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

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

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

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

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

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

CALCULATION OF REGISTRATION FEE

Title of each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price[1]	Amount of Registration Fee[2]
Common Stock[3]	$ 11,500,874	$ 1,333

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. Includes the offering price of shares that the underwriter has the option to purchase to cover over-allotments, if any.

(2) Previously paid.

(3) Pursuant to Rule 416 under the Securities Act, the securities being registered hereunder include such indeterminate number of additional shares of common stock as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

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

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

SUBJECT TO COMPLETION, DATED MAY 5, 2017

PROSPECTUS

5,348,000 Shares of Common Stock

We are offering 5,348,000 shares of our common stock.

Our common stock is listed on The NASDAQ Capital Market under the symbol "EYEG." On May 4, 2017, the last reported sale price of our common stock on The NASDAQ Capital Market was $1.87 per share. The public offering price per share will be determined between us and the underwriter at the time of pricing, and may be at a discount to the current market price.

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary — Implications of Being an Emerging Growth Company."

You should read this prospectus, together with additional information described under the headings "Incorporation of Certain Information by Reference" and "Where You Can Find More Information," carefully before you invest in our common stock.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 10 of this prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of information that should be considered in connection with an investment in our securities.

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

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

(1) We have agreed to reimburse the underwriter for certain expenses. See "Underwriting" on page 21 of this prospectus for a description of the compensation payable to the underwriter.

We have granted the underwriter a 30-day option to purchase up to 802,200 additional shares of our common stock on the same terms and conditions described herein, solely to cover over-allotments, if any.

The underwriter expects to deliver the shares against payment therefor on or about , 2017.

Wedbush PacGrow

Prospectus dated , 2017.

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ABOUT THIS PROSPECTUS

We have not, and the underwriter has not, authorized anyone to provide you with information that is different from that contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. When you make a decision about whether to invest in our securities, you should not rely upon any information other than the information contained in or incorporated by reference in this prospectus or in any free writing prospectus that we may authorize to be delivered or made available to you. Neither the delivery of this prospectus nor the sale of our securities means that the information contained in this prospectus or any free writing prospectus is correct after the date of this prospectus or such free writing prospectus. This prospectus is not an offer to sell or the solicitation of an offer to buy our securities in any circumstances under which the offer or solicitation is unlawful.

For investors outside the United States: We have not, and the underwriter has not, taken any action that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities covered hereby and the distribution of this prospectus outside the United States.

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause our future performance to differ materially from our assumptions and estimates. See "Special Note Regarding Forward-Looking Statements."

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

We have proprietary rights to trademarks used in this prospectus, including EyeGate®. Solely for our convenience, trademarks and trade names referred to in this prospectus may appear without the "®" or "™" symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent possible under applicable law, our rights or the rights to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Each trademark, trade name, or service mark of any other company appearing in this prospectus is the property of its respective holder.

PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus. It may not contain all of the information that is important to you. You should read the entire prospectus carefully, especially the discussion regarding the risks of investing in our securities under the heading "Risk Factors," before investing in our securities. All references to "Company" "we," "our" or "us" refer solely to EyeGate Pharmaceuticals, Inc. and its subsidiaries and not to the persons who manage us or sit on our Board of Directors (the "Board").

Overview

We are a clinical-stage specialty pharmaceutical company focused on developing and commercializing products using our two proprietary platform technologies, crosslinked thiolated carboxymethyl hyaluronic acid ("CMHA-S") and iontophoresis drug delivery system for treating diseases and disorders of the eye. Our most advanced platform is based on a CMHA-S, a modified form of the natural polymer hyaluronic acid ("HA"), which is a gel that possesses unique physical and chemical properties such as hydrating and healing when applied to the ocular surface. We believe that the ability of CMHA-S to adhere longer to the ocular surface, resist degradation and protect the ocular surface makes it well-suited for treating various ocular surface injuries.

The EyeGate Ocular Bandage Gel ("OBG") is an eye drop formulation of a CMHA-S hydrogel capable of coating the ocular surface and designed to resist degradation under conditions present in the eye. This prolongs residence time of the bandage on the ocular surface, thereby addressing the limitations of current non-crosslinked hyaluronic acid formulations. Additionally, crosslinking allows the product's viscosity to be modified to meet optimum ocular needs. The increased viscosity and non-covalent muco-adhesive interfacial forces improve residence time in the tear film, thus providing a coating that aids and promotes re-epithelization of the ocular surface via physical protection without any optical blur.

Hyaluronic acid is a naturally occurring polymer that is important in many physiological processes, including wound healing, tissue homeostasis, and joint lubrication. To create this hydrogel, the HA is modified to create CMHA that is then crosslinked together through the thiol groups to CMHA-S. Some products employ disulfide crosslinking while others utilize a Polyethylene Glycol Diacrylate, or PEGDA, crosslinker. Crosslinking slows degradation of the HA backbone and provides a matrix for incorporating therapeutic agents. Variations in the number of thiols per molecule, the molecular weight of the polymer, the concentration of the polymer, the type of crosslinking, and incorporation of active ingredients, provides a highly versatile platform that can be tailored to a specific application and formulated as eye drops, gels, or films.

Our first CMHA-S-based product candidate, the EyeGate OBG, is a topically applied 0.75% CMHA-S eye drop formulation that has completed its first-in-man clinical trial. Preclinical studies suggest that the specific CMHA-S chemical modification comprising the EyeGate OBG creates a favorable set of attributes, including prolonged retention time on the ocular surface, and a smooth continuous clear barrier without blur that can minimize mechanical lid friction, reduce repeat injury, and mechanically protect the ocular surface, allowing accelerated corneal re-epithelization. It is intended for the management of corneal epithelial defects and to accelerate re-epithelization of the ocular surface following surgery, infections, and other traumatic and non-traumatic conditions.

EyeGate OBG is being developed pursuant to a *de novo* 510(k) regulatory pathway for devices submitted for marketing clearance to the U.S. Food and Drug Administration, or FDA. We believe that EyeGate OBG is the first and only eye drop being developed in the U.S. to target acceleration of corneal re-epithelization. On May 4, 2017, we submitted an Investigational Device Exemption, or IDE, with the FDA. The IDE, if accepted, will enable us to initiate a second pilot study. We anticipate initiating the second trial in the second quarter of 2017 for which we expect to report top-line data in late third quarter or early fourth quarter of 2017. Assuming positive results from this trial and a subsequent pivotal trial we expect to initiate in the second half of 2017 and to report topline data from in the first quarter of 2018, we plan to file *de novo* 510(k) and CE mark applications in the first half of 2018 with potential commercial launch in late 2018, initially targeting an estimated 160,000 to 240,000 photorefractive keratectomy, or PRK, procedures in the US annually.

The same crosslinked HA in EyeGate OBG is presently available commercially as a veterinary device indicated for use in the management of superficial noninfectious corneal ulcers. Manufactured by SentrX Animal Care and sold in the U.S. by Bayer Animal Health as Remend® Corneal Repair, the product has been used successfully for five years in dogs, cats and horses, without adverse effects. The composition of the veterinary product is identical to that of the EyeGate OBG. We have obtained a license from BioTime, Inc. for the exclusive worldwide right to commercialize CMHA-S for ophthalmic treatments in humans. We paid BioTime $50,000, and are required to pay royalties to BioTime based on revenue relating to any product incorporating the CMHA-S technology. Our license agreement expires when patent protection for the CMHA-S technology lapses, which is expected to occur in the U.S. in 2027. We do not have the rights to the CMHA-S platform for animal health or veterinary medicine.

Our first product candidate from our second platform is EGP-437, a reformulated topically active corticosteroid, dexamethasone phosphate, delivered into the ocular tissues through our proprietary innovative iontophoresis drug delivery system, the EyeGate® II Delivery System. The EyeGate® II Delivery System features a compact and easy-to-use device that we believe has the potential to deliver drugs non-invasively and quickly into the ocular tissues through the use of iontophoresis, which can accelerate the onset of action, dramatically reduce dosing frequency compared to regular eye drops, and sustain the duration of therapeutic effect. Iontophoresis employs the use of a low electrical current that promotes the migration of a charged drug substance across biological membranes. The EyeGate® II Delivery System is easy-to-use, taking only a few minutes to deliver medication. More than 2,400 treatments have been administered to date using our EyeGate® II Delivery System in clinical trials. EGP-437 is currently in clinical development for the treatment of various inflammatory conditions of the eye. Current programs include the treatment of ocular inflammation and pain in post-surgical cataract patients, with a planned Phase 2b trial expected to commence in the second quarter of 2017 and the treatment of uveitis, a debilitating form of intraocular inflammation of the anterior portion of the uvea, such as the iris and/or ciliary body, with a Phase 3 trial currently enrolling. We expect to report top-line data from the cataract surgery trial by the end of 2017, and for the uveitis trial in the first quarter of 2018.

EGP-437 is being developed pursuant to a new drug application, or NDA, under the Section 505(b)(2) pathway, which enables an applicant to rely, in part, on the FDA's findings of safety and efficacy for an existing product, or published literature, in support of its NDA. In the case of EGP-437, the existing reference product is dexamethasone eye drops. Based on guidance provided by the FDA, we believe that if the planned confirmatory Phase 3 trial of EGP-437 in anterior uveitis meets non-inferiority criteria, the results of that trial, along with data from our previously completed Phase 3 trial in anterior uveitis, will be sufficient to support a NDA filing in the first half of 2018. We also believe, based on guidance provided by the FDA, that the design of the ongoing confirmatory Phase 3 anterior uveitis trial is acceptable and that the nonclinical work completed to date is sufficient to support a NDA filing.

Medical products containing a combination of new drugs, biological products, or medical devices may be regulated as "combination products" in the U.S. A combination product generally is defined as a product comprised of components from two or more regulatory categories, such as drug/device, device/biologic, or drug/biologic. Each component of a combination product is subject to the requirements established by the FDA for that type of component, whether a new drug, biologic, or device. In order to facilitate premarket review of combination products, the FDA designates one of its centers to have primary jurisdiction for the premarket review and regulation of both components. We expect that the Center for Drug Evaluation and Research will have primary jurisdiction over our EGP-437 combination product. The determination whether a product is a combination product or two separate products is made by the FDA on a case-by-case basis. We have had discussions with the FDA about the status of our EGP-437 combination product as a combination product and we have been advised that the FDA considers our product a combination drug/device.

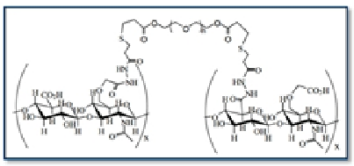
We have entered into two exclusive global license agreements with subsidiaries of Valeant Pharmaceuticals International, Inc. ("Valeant"), through which we have granted Valeant exclusive, worldwide commercial and manufacturing rights to the combination of our EyeGate® II Delivery System and our EGP-437 product in the fields of uveitis and ocular iontophoretic treatment for post-operative ocular inflammation and pain in ocular surgery patients, as well as a right of last negotiation to license the combination product for other indications. We are responsible for the clinical development of the product in the U.S. for the indications licensed, together with the costs associated therewith. Valeant has the right to develop the product in the fields outside of the U.S. and has agreed to fund 100% of any costs associated therewith.

Ophthalmic Market Opportunity

Ophthalmology is a specialty market with commercial and regulatory dynamics that we believe make it possible for a small or medium sized company like us to develop and commercialize products on our own. We believe that the specialists in the U.S. who treat ocular diseases are sufficiently concentrated that we could effectively promote our products with a specialty sales and marketing group. We believe we can commercialize EyeGate OBG on our own given our existing partnership for the EGP-437 combination product in the ocular iontophoretic development.

Clinical Pipeline

Ocular Bandage Gel (OBG): Crosslinked Hyaluronic Acid (CMHA-S) as Eye Drop



Indication(s)	Stage	Upcoming Milestone(s)
Large Corneal Epithelial Defects – PRK	Pilot trial completed, *Positive data announced*	▪ Late Q3 / early Q4 2017: Pilot 2 top-line data ▪ Q1 2018: Pivotal top-line data ▪ H1 2018: *De novo* FDA 510(k) and CE Mark filing

Iontophoresis Delivery System: EGP-437: Corticosteroid Iontophoresis

Indication(s)	Stage	Upcoming Milestone(s)
Cataract Surgery	Phase 2b *Positive Phase 1b/2a data*	YE 2017: Phase 2b top-line data Q1 2018: Phase 3 initiation H2 2018: NDA filing
Anterior Uveitis	Phase 3	Q1 2018: Phase 3 top-line data H1 2018: NDA filing

Current Targeted Indications

Large Corneal Epithelial Defects

EyeGate OBG is initially targeting the accelerated re-epithelization of large corneal epithelial defects resulting from PRK.

PRK is an efficacious alternative to patients seeking surgical correction of refractive errors who are not suitable candidates for laser in situ keratomileusis ("LASIK") due to inadequate corneal thickness, larger pupil size, history of keratoconjunctivitis sicca ("KCS"), or anterior basement membrane disease. PRK involves controlled mechanical removal of corneal epithelium with subsequent excimer laser photoablation of the underlying Bowman's layer and anterior stroma, including the subepithelial nerve plexus.

The military prefers PRK as a refractive surgery due to the stability of the PRK incision and the absence of risk for flap dislocation during military active duty. Although this procedure yields desirable visual acuity results, common complications of the procedure include post-operative pain secondary to the epithelial defects,

risk of corneal infection prior to re-epithelization of the large epithelial defect, corneal haze formation, decreased contrast sensitivity, and slower visual recovery.

Per our discussion with the FDA at the pre-submission meeting that occurred in the fourth quarter of 2016, we also plan on designing and initiating trials during the second half of 2017 that will broaden the indications for use of OBG beyond PRK, including ocular burns, microabrasions, superficial punctate keratitis and other conditions. The designs will be based on size of defect and not a specific underlying cause or indication.

Market opportunity

Large corneal epithelial defects can result from various etiologies such as ocular trauma, surgery, ocular surface disorders, systemic diseases, and epithelial injury due to exposure. We believe EyeGate OBG has the potential to treat a wide variety of ocular diseases and disorders that result from corneal epitheliopathy, and based on statistics from the National Eye Institute of the National Institutes of Health, the Centers for Disease Control, the American Academy of Ophthalmology and Market Scope, we believe such diseases and disorders potentially account for over 75,000,000 patients in the U.S. These conditions range from acute injury to chronic diseases and we believe EyeGate OBG can potentially help restore vision to these patients faster and provide better visual outcomes by accelerating corneal re-epithelization. The daily frequency for the EyeGate OBG treatments needed to treat the corneal epithelial conditions will most likely vary based on the severity, cause and chronicity of the underlying pathology. They may vary from 2 – 3 times a day to as frequent as 8 times during an acute and very painful episode. For patients who have undergone a PRK procedure, we believe the medical need to treat the subacute condition is quite high. Based on data from the American Academy of Ophthalmology, we estimate that the annual prevalence in the U.S. of patients who have had a PRK procedure is between 160,000 and 240,000. If approved, we believe EyeGate OBG is well positioned to capture a large market share to treat patients who have had a PRK procedure because it will be the first and only eye drop in the U.S. targeting the acceleration of re-epithelization claim. We also plan on designing and initiating clinical trials during the second half of 2017 that will broaden the indications for use of OBG beyond PRK, including ocular burns, microabrasions, superficial punctate keratitis and other conditions.

Clinical Trial Results

In January 2017, we reported topline results from the first-in-human pilot trial of EyeGate OBG, the acceleration of re-epithelialization of large corneal epithelial defects in patients having undergone PRK. The prospective, randomized, controlled study enrolled 39 subjects undergoing bilateral PRK surgery and aimed to assess the safety and performance of EyeGate OBG on its own or combined with a Bandage Contact Lens (“BCL”) compared to the current standard of care, artificial tears and BCL. The primary endpoint of the study was complete wound closure by Day 3.

The enrolled subjects were randomized into one of three study groups, with subjects receiving the same treatment in both eyes:

- Patients in arm 1 (n=12) received EyeGate Ocular Bandage Gel four times daily (QID) for two weeks after surgery.
- Arm 2 (n=14) was comprised of EyeGate Ocular Bandage Gel QID for two weeks after surgery in combination with a BCL.
- Arm 3 (n=13) was comprised of artificial tears administered four times daily and BCL.

The study demonstrated safety and tolerability of EyeGate OBG, with encouraging potential efficacy. 83.3% of the subjects in Arm 1 (EyeGate OBG alone) achieved complete wound closure by Day 3, compared to 53.8% of patients that received the standard of care. Also, on Day 3, the average wound surface area was 94.4% smaller for the OBG arm versus the standard or care arm or $0.02mm^2$ vs $0.37mm^2$ respectively. Additionally, the average wound surface area on Day 1 (24 hours post-surgery) was $18.5mm^2$ for patients in the EyeGate OBG alone arm compared to $39.5mm^2$ in the BCL arm, a 53.3% improvement. Based on these positive results, EyeGate plans to continue development with a double-masked, controlled trial evaluating EyeGate OBG monotherapy against BCL in the second quarter of 2017.

	# Subjects per arm	Closed Wound: Day 3		Surface Area (mm^2)	
		#	%	Day 1	Day 3
Arm 1: OBG	12	10	83.3%	18.5	0.02
Arm 2: OBG + BCL	14	9	64.3%	40.7	0.10
Arm 3: BCL + AT1	13	7	53.8%	39.5	0.37
Total Subjects Enrolled	**39**				
OBG vs BCL: % Superior			**54.8%**	**53.3%**	**94.4%**

EyeGate® II Delivery System and EGP-437

Delivery of therapeutic agents using ocular iontophoresis is a potential means of non-invasively achieving higher drug levels rapidly within the eye by promoting the migration of a charged drug substance across biological membranes with a low electrical current. The EyeGate® II Delivery System applicator utilizes an inert electrode, which stimulates the electrolysis of water to produce ions (hydroxide or hydronium), which via electrorepulsion, drive a like-charged drug substance into the ocular tissues. The EyeGate® II Delivery System is a platform technology that requires customized pharmaceutical formulations to enable delivery efficiency and safety while allowing for potential novel intellectual property.

Many front of the eye conditions such as pain and inflammation following cataract surgery and non-infectious anterior uveitis are acute inflammatory conditions. The current standard of care to treat ocular surface and anterior segment inflammation is patient administered corticosteroids in the form of eye drops. Topical corticosteroids suffer from a number of drawbacks including poor patient compliance, low ocular bioavailability, rapid clearance, and steroid-related side effects including elevated intraocular pressure (IOP). We believe that our EGP-437 product candidate has the potential to address these unmet needs by providing in-office treatments given by the eye care provider thereby mitigating patient compliance issues and substantially reducing the burden of care. Also, the data from multiple clinical trials suggests that EGP-437 does not significantly raise IOP, at the time points evaluated during the study period.

The primary route of administration for drugs treating retinal diseases is through intravitreal injection into the vitreous of the eye. These injections must be given as frequently as once per month when treating chronic diseases like macular degeneration. Unfortunately, there are known drawbacks associated with administering intravitreal injections, including safety risks, adverse patient experience and the time and labor to administer. Data from our Phase 1b/2a proof-of-concept trial in macular edema suggests that iontophoresis can non-invasively deliver efficacious levels of EGP-437 to the back of the eye and or retina. The non-invasive delivery of EGP-437 demonstrated a positive response in some macular edema patients in the trial.

Current Targeted Indications

Cataract Surgery

Cataracts are the leading cause of blindness worldwide, and there are more than 24 million people age 40 and older who have cataracts in the U.S. alone, according to the *Vision Problems in the U.S.* report from Prevent Blindness. A cataract is a clouding of the lens in the eye that affects vision. Most cataracts are related to aging and are very common in older people. By age 80, more than half of the U.S. population either have a cataract or have had cataract surgery. Cataract surgery is the most common surgical procedure in the population aged over 65 years. There are approximately four million cataract surgeries performed per year in the U.S. As the technology of cataract surgery has progressed, so too, has the increased patient demand for excellent vision and safety after the procedure, but visual rehabilitation after cataract surgery is sometimes delayed by the

inflammatory processes that are induced by phacoemulsification where the eye's cloudy lens is emulsified with an ultrasonic hand piece and aspirated from the eye. Inflammation is induced in all cataract surgeries by the mechanical transmission of energy into the eye, disruption of cell membranes, and the normal healing process. Postoperative topical corticosteroids are used routinely to reduce inflammation and improve visual outcomes after cataract surgery. Despite their use, transient corneal edema is one of the major factors that can hinder the improvement of vision in the first days after surgery, and cystoid macula edema may reduce quality of vision for weeks or months after the procedure. Therefore, reducing inflammation immediately following the procedure and any potential damage to the corneal endothelium and retina are high priorities for the ophthalmic surgeon.

Non-Infectious Anterior Uveitis

Uveitis is a general term for inflammation of the uveal tract and encompasses a wide range of etiologies. It may be idiopathic, associated with systemic diseases or result from a variety of infectious agents. An annual estimated 17.6% of active uveitis patients experience transient or permanent loss of vision. Uveitis is responsible for more than 2.8% of cases of blindness in the U.S., making this disorder an important cause of vision loss and impairment. Non-infectious anterior uveitis is a debilitating form of intraocular inflammation of the anterior portion of the uvea, such as the iris and/or ciliary body and is the most common form of uveitis. Incidence in the U.S. ranges from approximately 26.6 to 102 per 100,000 adults annually with recent reports indicating occurrence in all age groups with the highest incidence in those over age 65. Chronic or recurrent, anterior uveitis may lead to complications such as cataracts, glaucoma, and macular edema.

Inflammation can be classified as either acute or chronic. Acute inflammation is the initial response of the body to harmful stimuli and is achieved by the increased movement of plasma and white blood cells from the blood into the injured tissues, in this case the uvea. Sometimes, the inflammation associated with anterior uveitis is in response to a real infection. This is known as infectious anterior uveitis. However, anterior uveitis often occurs for no apparent reason as the result of the immune system malfunctioning and triggering the process of inflammation even though no infection is present. This is known as non-infectious anterior uveitis. Patients that have anterior uveitis exhibit a large number of white blood cells in the anterior chamber of the eye. In order to count these cells in the anterior chamber, the physician uses a slit lamp, an instrument consisting of a high-intensity light source that can be focused to shine a thin sheet of light into the eye. The treatment objective is to eliminate the inflammation of the uvea which can be confirmed by an anterior chamber cell count of zero.

Clinical Development

We submitted an IND for EGP-437 to the FDA in April 2008, under which we have completed seven clinical trials. The first two trials were executed in parallel — a Phase 1/2 non-infectious anterior uveitis trial and a Phase 2 dry eye trial. These two trials were followed by a Phase 3 dry eye trial. Subsequently, we completed our first Phase 3 trial for non-infectious anterior uveitis. During the time that we executed the Phase 3 non-infectious anterior uveitis trial we completed a Phase 2 proof-of-concept cataract surgery trial, with prophylactic treatment of EGP-437. In December 2016, we completed a Phase 1b/2a dose ranging trial treating inflammation and pain for subjects that have undergone cataract surgery and in mid-2016 a Phase 1b/2a proof-of-concept macular edema trial, which demonstrated the ability of the EyeGate® II Delivery System to deliver a drug non-invasively to the back of the eye.

EGP-437: Cataract Surgery

We have completed two trials (Phase 2 prophylactic and Phase 1b/2a dose-ranging) and in December 2016 reported positive data for our Phase 1b/2a dose-ranging clinical trial for the treatment of ocular inflammation and pain in post-surgical cataract patients. The design of this trial is based on treating the patients post-operatively and not prophylactically. The Phase 1b/2a clinical trial was a multi-center, open-label trial enrolling 80 subjects who had undergone unilateral cataract extraction and implantation of a monofocal intra-ocular lens. The primary objective of this trial was to assess the safety and efficacy of iontophoretic EGP-437 in these patients following surgery. A positive response was achieved and the 4.5 mA-min iontophoretic dose has been determined as the optimal dose to take forward into a Phase 2 trial, to be initiated in the second quarter of 2017, with the top-line data expected by year-end.

EGP-437: Anterior Uveitis

We have completed two trials (Phase 1/2 and Phase 3) for anterior uveitis and have demonstrated in the completed Phase 3 non-inferiority study that two iontophoretic treatments with EGP-437 achieved the same response rate as the positive control for the primary efficacy endpoint, a complete clearing of anterior chamber cells, by Day 14. This was achieved with a lower incidence of increased IOP, which is characterized as an increase of 6 mm Hg or more from baseline. We are currently enrolling patients in an ongoing confirmatory Phase 3 trial and expect to report top-line data in the first quarter of 2018. The FDA has provided guidance that the ongoing confirmatory Phase 3 trial of EGP-437 in anterior uveitis meets non-inferiority criteria, and that data from this trial along with data from our previously completed Phase 3 trial in anterior uveitis will be sufficient to support a NDA filing. The FDA also communicated that the design of the ongoing confirmatory Phase 3 anterior uveitis trial is acceptable and that the nonclinical work completed to date is sufficient to support a NDA filing.

EGP-437: Other Indications

Although we have completed two trials (Phase 2 and Phase 3) for dry eye, at this time we are not anticipating any further development for this indication. We have completed a Phase 1/2 for macular edema and at this time we are assessing the next steps for this indication.

Our Strategy

Our goal is to become a leading specialty pharmaceutical company focused on developing and commercializing products for treating diseases and disorders of the eye. The key elements of this strategy are to:

- *Continue clinical development of our EyeGate OBG device for the treatment of corneal epithelial defects.* We have just completed our first-in-human trial enrolling subjects with a 9mm corneal wound, a large corneal epithelial defect, post PRK surgery and released positive top-line data in the first quarter of 2017. We anticipate initiating a double-masked controlled trial in the second quarter of 2017 and expect to report top-line data in late third quarter or early fourth quarter of 2017.
- *Continue clinical development of our EGP-437 Combination Product for the treatment of inflammation and pain post cataract surgery*. We have completed an 80 subject open-label dose ranging trial and plan on initiating a randomized controlled Phase 2b trial in the second quarter of 2017. We expect to report top-line data for this trial by year-end 2017.
- *Continue clinical development of EGP-437 for the treatment of noninfectious anterior uveitis.* We have begun enrolling patients for the confirmatory Phase 3 trial evaluating the safety and efficacy of EGP-437 for the treatment of noninfectious anterior uveitis. Based on our estimates regarding subject enrollment, we expect to report top-line data for this trial in the first quarter of 2018.
- *Utilize the EyeGate iontophoresis expertise to expand our drug delivery platform for the treatment of eye diseases.* Our initial platform, the EyeGate® II Drug Delivery System, is an in-office treatment performed by an eye care provider. We plan to develop a system based on iontophoresis that could be applied at home by the patient. This would be ideal for the treatment of certain chronic ocular diseases, as it could reduce the required frequency of visits to the eye care provider's office.
- *Utilize the EyeGate CMHA-S polymer platform to expand our drug delivery capabilities for the treatment of anterior segment eye diseases.* This unique biodegradable polymer platform offers the potential to deliver drugs and molecules to the ocular surface as a delivery vehicle. OBG stays on the ocular surface for upwards of 90 minutes, which potentially enables this CMHA to enhance drug bioavailability. Furthermore, the crosslinking enables a sustained release platform. We are undertaking research to explore expanding the utility of this polymer in ophthalmology.
- *Pursue other strategic collaborations.* We plan to evaluate opportunities to enter into collaborations that may contribute to our ability to advance our drug delivery platforms and product candidates and to progress concurrently a range of discovery and development programs. We also plan to evaluate opportunities to in-license or acquire the rights to other products, product candidates or technologies for the treatment of eye diseases.

Corporate Information

Our principal executive offices are located at 271 Waverley Oaks Road, Suite 108, Waltham, MA 02452, and our telephone number is (781) 788-9043. Our website address is *www.eyegatepharma.com.* Our website and the information contained in, or accessible through, our website will not be deemed to be incorporated by reference into this prospectus and does not constitute part of this prospectus. You should not rely on any such information in making your decision whether to purchase our securities.

Implications of Being an Emerging Growth Company

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

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until December 31, 2020. However, if certain events occur prior to December 31, 2020, including if we become a "large accelerated filer," our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company before such date.

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

THE OFFERING

Common stock offered by us	5,348,000 shares, assuming a public offering price of $1.87 per share, the last reported sale price of our common stock on The NASDAQ Capital Market on May 4, 2017
Common Stock outstanding after this offering	16,226,116 shares (17,028,316 shares if the underwriter exercises its over-allotment option in full), assuming a public offering price of $1.87 per share, the last reported sale price of our common stock on The NASDAQ Capital Market on May 4, 2017
Over-allotment option	We will grant the underwriter a 30-day option to purchase up to 802,200 additional shares of our common stock, assuming a public offering price of $1.87 per share, the last reported sale price of our common stock on The NASDAQ Capital Market on May 4, 2017, on the same terms and conditions described herein, solely to cover over-allotments, if any.
Use of proceeds	We intend to use the net proceeds from this offering to support our operations, including for clinical trials, for working capital and for other general corporate purposes, which will include the pursuit of our other research and development efforts and could also include the acquisition or in-license of other products, product candidates or technologies candidates or technologies. See "Use of Proceeds" on page 15.
Risk factors	Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 10 of this prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of information that should be considered in connection with an investment in our securities.
NASDAQ Capital Market symbol	EYEG

The number of shares of our common stock to be outstanding after this offering is based on 10,878,116 shares of our common stock outstanding as of May 4, 2017, and excludes as of such date:

- 1,489,934 shares of common stock issuable upon exercise of options outstanding under our 2005 Equity Incentive Plan and 2014 Equity Incentive Plan, at a weighted-average exercise price of approximately $2.87 per share;
- 2,852,736 shares of our common stock issuable upon the exercise of outstanding warrants to purchase shares of our common stock with a weighted-average exercise price of $7.45 per share;
- any shares of our common stock issuable upon exercise of the underwriter's over-allotment option;
- 350,961 shares of common stock reserved for future issuance under our 2014 Equity Incentive Plan; and
- 70,567 shares of common stock reserved under our 2014 Employee Stock Purchase Plan.

Except as otherwise noted, all information in this prospectus assumes no exercise of the underwriter's over-allotment option.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks and uncertainties and all other information contained in or incorporated by reference in this prospectus, including the risks and uncertainties discussed under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2016. All of these risk factors are incorporated by reference herein in their entirety. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described herein and in the documents incorporated herein by reference.

We have broad discretion to determine how to use the proceeds raised in this offering, and we may not use the proceeds effectively.

Our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways with which you may not agree or that do not yield a favorable return. We intend to use the net proceeds from this offering for clinical trials, for working capital and for other general corporate purposes, which will include the pursuit of our other research and development efforts and could also include the acquisition or in-license of other products, product candidates or technologies. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our stock price to decline.

You will experience immediate and substantial dilution when you purchase shares in this offering.

You will incur immediate and substantial dilution as a result of this offering. After giving effect to the assumed sale by us of 5,348,000 shares of our common stock in this offering at an assumed public offering price of $1.87 per share, the last reported sale price of our common stock on The NASDAQ Capital Market on May 4, 2017, and after deducting the underwriting discount and estimated offering expenses payable by us, investors in this offering will suffer an immediate dilution of $1.12 per share.

If we issue additional common stock, or securities convertible into or exchangeable or exercisable for common stock, our stockholders, including investors who purchase shares of common stock in this offering, may experience additional dilution, and any such issuances may result in downward pressure on the price of our common stock. We may not be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. See "Dilution" on page 16 of this prospectus for a more detailed discussion of the dilution you will incur in connection with this offering.

The issuance of additional equity securities may negatively impact the trading price of our common stock.

We have issued equity securities in the past, will issue equity securities in this offering and expect to continue to issue equity securities to finance our activities in the future. In addition, outstanding options and warrants to purchase our common stock may be exercised and additional options and warrants may be issued, resulting in the issuance of additional shares of common stock. The issuance by us of additional equity securities, including the shares of common stock issuable upon exercise of the warrants issued by us in this offering, would result in dilution to our stockholders, and even the perception that such an issuance may occur could have a negative impact on the trading price of our common stock.

We are not in compliance with NASDAQ's continued listing requirements. If we are unable to comply with those listing requirements, our common stock could be delisted which would have a materially adverse effect on the marketability of our comment stock.

On April 12, 2017, we received a notice from NASDAQ that we were not in compliance with its continued listing requirements set forth in NASDAQ's Marketplace Rule 5550(b) because (i) we did not have a minimum required stockholders' equity of $2.5 million, (ii) the market value of our listed securities

("MVLS") was less than $35 million, and (iii) we did not have net income from continuing operations in the latest fiscal year or in two of the last three fiscal years. In accordance with Nasdaq Listing Rule 5810(c)(3)(C), we have a period of 180 calendar days, or until October 2, 2017, to regain compliance. To regain compliance, at any time during the 180 calendar day-compliance period, our MVLS must be $35 million or more for a minimum of 10 consecutive business days or we must have stockholders' equity of at least $2.5 million.

In the event that we do not regain compliance with these listing requirements prior to the expiration of the compliance period, we will receive written notification that our securities are subject to delisting. At that time, we may appeal the delisting determination to a hearings panel pursuant to NASDAQ's appeal procedures. We believe that the receipt of the net proceeds of this offering will bring us back into compliance with these listing requirements.

A delisting of our common stock would have a materially adverse effect on the market liquidity of our common stock and, as a result, the market price for our common stock could become more volatile. Further, a delisting also could make it more difficult for us to raise additional capital.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains, and the documents incorporated herein by reference contain, forward-looking statements that involve risks and uncertainties. The forward-looking statements are contained principally in the sections of this prospectus and the documents incorporated herein by reference under the captions "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "objective," "intend," "should," "seek," "aim," "think," "optimistic," "strategy," "goals," "sees," "new," "guidance," "future," "continue," "drive," "growth," "long-term," "develop," "possible," "emerging," "opportunity," "pursue," "could," "can," "would," "expect," "believe," "anticipate," "project," "target," "design," "estimate," "predict," "potential," "plan" or the negative of these terms, and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- the timing and success of preclinical studies and clinical trials conducted by us and our development partners;
- the ability to obtain and maintain regulatory approval of our product candidates, and the labeling for any approved products;
- the scope, progress, expansion, and costs of developing and commercializing our product candidates;
- the size and growth of the potential markets for our product candidates and the ability to serve those markets;
- our expectations regarding our expenses and revenue, the sufficiency of our cash resources and needs for additional financing;
- the rate and degree of market acceptance of any of our product candidates;
- our expectations regarding competition;
- our anticipated growth strategies;
- our ability to attract or retain key personnel;
- our ability to establish and maintain development partnerships;
- our expectations regarding federal, state and foreign regulatory requirements;
- regulatory developments in the U.S. and foreign countries;
- our ability to obtain and maintain intellectual property protection for our product candidates;
- the anticipated trends and challenges in our business and the market in which we operate; and
- our use of proceeds from this offering.

Any forward-looking statement made by us in this prospectus speaks only as of the date on which it is made. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

PRICE RANGE OF COMMON STOCK

Our common stock is listed and has traded on The NASDAQ Capital Market under the symbol “EYEG” since July 31, 2015. From February 19, 2015, the date our initial public offering closed, to July 30, 2015, our common stock was quoted on the OTCQB Venture Marketplace (the “OTCQB”) under the symbol “EYEG”.

The following table sets forth, for the periods indicated, the range of high and low sales prices of our common stock as reported by The NASDAQ Capital Market since July 31, 2015 and the high and low bid prices of our common stock quoted on the OTCQB prior to such date. OTCQB quotations reflect inter-dealer prices, without retail mark-up, mark-down or commissions, and may not represent actual transactions.

	High	Low
Fiscal Year Ending December 31, 2017		
Second quarter (through May 4, 2017)	$ 2.53	$ 1.85
First quarter	$ 3.90	$ 1.42
Fiscal Year Ended December 31, 2016		
Fourth quarter	$ 2.10	$ 1.11
Third quarter	$ 3.00	$ 1.31
Second quarter	$ 4.00	$ 2.42
First quarter	$ 5.10	$ 1.38
Fiscal Year Ended December 31, 2015		
Fourth Quarter	$ 5.00	$ 2.39
Third quarter	$ 22.68	$ 2.78
Second quarter	$ 5.09	$ 3.22
First quarter (from February 19, 2015)	$ 6.10	$ 3.10

On May 4, 2017, the last reported sale price of our common stock as reported by The NASDAQ Capital Market was $1.87 per share. As of such date, we had approximately 89 stockholders of record.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain future earnings, if any, and all currently available funds for use in the operation of our business and do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors after considering our financial condition, results of operations, capital requirements, business prospects and other factors the board of directors deems relevant, and subject to the restrictions contained in our current or future financing instruments.

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $9.0 million, or approximately $10.4 million if the underwriter exercises its over-allotment option in full, assuming the sale of 5,348,000 shares of common stock at an assumed public offering price of $1.87 per share, the last reported sale price of our common stock on The NASDAQ Capital Market on May 4, 2017, after deducting the underwriting discount and estimated offering expenses payable by us.

A $0.25 increase (decrease) in the assumed public offering price of $1.87 per share would increase (decrease) the net proceeds from this offering by approximately $1.2 million, assuming that the number of shares of common stock we are offering, as set forth on the cover page of this prospectus, remains the same, after deducting the estimated underwriting discount and estimated offering expenses payable by us. We may also increase or decrease the number of shares of common stock we are offering. Each increase (decrease) of 1,000,000 shares in the number of shares of common stock we are offering would increase (decrease) the net proceeds to us from this offering by approximately $1.7 million, assuming that the assumed public offering price remains the same, and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering, together with other available funds, to support our operations, including for clinical trials, for working capital and for other general corporate purposes, which will include the pursuit of our other research and development efforts and could also include the acquisition or in-license of other products, product candidates or technologies, though no such acquisition or in-license is current contemplated. We have not yet determined the amount of net proceeds to be used specifically for any of the foregoing purposes.

Pending use of the proceeds as described above, we intend to invest the net proceeds of this offering in short-term, interest-bearing, investment-grade securities or certificates of deposit.

The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our clinical trials, as well as the amount of cash used in our operations. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds and investors will be relying on the judgment of our management regarding the application of the net proceeds from this offering.

Based upon our historical and anticipated future growth and our financial needs, we may engage in additional financings of a character and amount that we determine as the need arises. We may raise additional capital through additional public or private financings, the incurrence of debt and other available sources.

DILUTION

If you purchase shares of our common stock in this offering, you will experience dilution to the extent of the difference between the public offering price per share in this offering and our as adjusted net tangible book value per share immediately after this offering. Net tangible book value (deficit) per share is equal to the amount of our total tangible assets, less total liabilities, divided by the number of outstanding shares of our common stock. As of March 31, 2017, our net tangible book value was approximately $3,166,351, or approximately $0.29 per share.

After giving effect to the sale of 5,348,000 shares of common stock at an assumed public offering price of $1.87 per share, the last reported sale price of our common stock on The NASDAQ Capital Market on May 4, 2017, and after deducting the underwriting and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2017 would have been approximately $12.2 million, or approximately $0.75 per share. This represents an immediate increase in net tangible book value of $0.46 per share to existing stockholders and an immediate dilution of $1.12 per share to investors purchasing our common stock in this offering. The following table illustrates this dilution:

Assumed public offering price per share		$ 1.87
Net tangible book value per share as of March 31, 2017	$ 0.29	
Increase in net tangible book value per share after giving effect to this offering	$ 0.46	
As adjusted net tangible book value per share after giving effect to this offering		$ 0.75
Dilution per share to new investors		$ 1.12

If the underwriter exercises in full its option to purchase 802,200 additional shares of our common stock, at the assumed public offering price of $1.87 per share, the last reported sale price of our common stock on The NASDAQ Capital Market on May 4, 2017, our as adjusted net tangible book value would be approximately $13.6 million, or approximately $0.80 per share, an increase of approximately $0.51 per share to existing stockholders and an immediate dilution of $1.07 per share to new investors purchasing shares of common stock in this offering, after deducting the underwriting discount and estimated offering expenses payable by us.

Each $0.25 increase (decrease) in the assumed public offering price of $1.87 per share would increase (decrease) the as adjusted net tangible book value by $0.08 per share of common stock and the dilution to new investors by $0.17 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting the underwriting discount and estimated offering expenses payable by us.

We may also increase or decrease the number of shares we are offering. An increase of 1,000,000 shares in the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, would increase our as adjusted net tangible book value by approximately $1.7 million, or approximately $0.06 per share, and decrease the dilution per share to investors in this offering by approximately $0.06 per share, assuming that the assumed public offering price per share remains the same, and after deducting the underwriting discount and estimated offering expenses payable by us. Similarly, a decrease of 1,000,000 shares in the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, would decrease our as adjusted net tangible book value by approximately $1.7 million, or approximately $0.06 per share, and increase the dilution per share to investors in this offering by approximately $0.06 per share, assuming that the assumed public offering price per share remains the same, and after deducting the underwriting discount and estimated offering expenses payable by us. The information discussed above is illustrative only and will change based on the actual public offering price and other terms of this offering determined at pricing.

The above discussion and table do not take into account further dilution to investors purchasing our common stock in this offering that could occur upon the exercise of outstanding options and warrants having a per share exercise price less than the public offering price per share in this offering. To the extent that outstanding options or warrants outstanding as of March 31, 2017, are exercised or other shares are issued, investors purchasing our common stock in this offering will experience further dilution. In addition, we may choose to

raise additional capital due to 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 additional capital is raised through the sale of our common stock, including through the sale of securities convertible into or exchangeable or exercisable for common stock, the issuance of these securities could result in further dilution to our stockholders, including investors purchasing our common stock in this offering.

The table and discussion above are based on 10,878,116 shares of our common stock outstanding as of March 31, 2017, and excludes as of such date:

- 1,489,934 shares of common stock issuable upon exercise of options outstanding under our 2005 Equity Incentive Plan and 2014 Equity Incentive Plan, at a weighted-average exercise price of approximately $2.87 per share;
- 2,852,736 shares of our common stock issuable upon the exercise of outstanding warrants to purchase shares of our common stock with a weighted-average exercise price of $7.45 per share;
- any shares of our common stock issuable upon exercise of the underwriter's over-allotment option;
- 350,961 shares of common stock reserved for future issuance under our 2014 Equity Incentive Plan; and
- 70,567 shares of common stock reserved under our 2014 Employee Stock Purchase Plan.

DESCRIPTION OF OUR CAPITAL STOCK

General

Our authorized capital stock consists of 100,000,000 shares of common stock, par value $0.01 per share, and 10,000,000 shares of preferred stock, par value $0.01 per share. The following description summarizes some of the terms of our restated certificate of incorporation and amended and restated bylaws, but does not purport to be complete and is qualified in its entirety by the provisions of our restated certificate of incorporation and amended and restated bylaws, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

Common Stock

Outstanding Shares. There were 10,878,116 shares of our common stock outstanding as of May 4, 2017. As of May 4, 2017, there were 1,489,934 shares of common stock subject to outstanding options and 2,852,736 shares of common stock subject to outstanding warrants.

Voting Rights. Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of the stockholders, including the election of directors. Except as otherwise provided by law or our restated certificate of incorporation or bylaws, all matters other than the election of directors submitted to the stockholders at any meeting shall be decided by the affirmative vote of a majority of the outstanding shares of common stock present in person or represented by proxy at the meeting and entitled to vote thereon. Directors are elected by a plurality of the votes cast at the meeting. Our restated certificate of incorporation and amended and restated bylaws do not provide for cumulative voting rights. Because of this, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. At present, we have no plans to issue dividends. See the section titled “Dividend Policy”.

Liquidation. In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Other Rights and Preferences. Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of our Series A Preferred Stock and any series of our preferred stock that we may designate and issue in the future.

Fully Paid and Nonassessable. All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

Provisions in our restated certificate of incorporation provide that our board of directors is authorized to issue preferred stock in one or more series, to establish the number of shares to be included in each such series and to fix the designation, powers, preferences and rights of such shares and any qualifications, limitations or restrictions thereof. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of our Company without further action by the stockholders and may adversely affect the voting and other rights of the holders of common stock. The issuance of preferred stock with voting and conversion rights may adversely affect the voting power of the holders of common stock, including the loss of voting control to others.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

Some provisions of Delaware law, our restated certificate of incorporation and our amended and restated bylaws contain provisions that could make the following transactions more difficult: an acquisition of us by means of a tender offer; an acquisition of us by means of a proxy contest or otherwise; or the removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions which provide for payment of a premium over the market price for our shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Undesignated Preferred Stock. The ability of our board of directors, without action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with voting or other rights or preferences as designated by our board of directors could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our Company.

Stockholder Meetings. Our amended and restated bylaws provide that a special meeting of stockholders may be called only by our chairman of the board or chief executive officer (or president, if there is no chief executive officer), or by a resolution adopted by a majority of our board of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals. Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals to be brought before a stockholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

Elimination of Stockholder Action by Written Consent. Our restated certificate of incorporation and amended and restated bylaws eliminate the right of stockholders to act by written consent without a meeting.

Staggered Board. Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders. This system of electing and removing directors may tend to discourage a third-party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Removal of Directors. Our restated certificate of incorporation provides that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds (2/3) of the total voting power of all of our outstanding voting stock then entitled to vote in the election of directors.

Stockholders Not Entitled to Cumulative Voting. Our restated certificate of incorporation does not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they choose, other than any directors that holders of our preferred stock may be entitled to elect.

Delaware Anti-Takeover Statute. We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed to be "interested stockholders" from engaging in a "business combination" with a publicly held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction

resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors.

Amendment of Charter Provisions. The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock, would require approval by holders of at least 66 2/3% of the total voting power of all of our outstanding voting stock.

The provisions of Delaware law, our restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the composition of our board and management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Preferred Stock

General. Our certificate of incorporation authorizes our board of directors to issue up to 10,000,000 shares of our preferred stock, par value $0.01 per share.

Subject to the limitations prescribed by our certificate of incorporation, our board of directors is authorized to establish the number of shares constituting each series of preferred stock and to fix the designations, powers, preferences and rights of the shares of each of those series and the qualifications, limitations and restrictions of each of those series, all without any further vote or action by our stockholders. Our board of directors has designated 3,750 of the 10,000,000 authorized shares of preferred stock as Series A Preferred Stock. The shares of Series A Preferred Stock were validly issued, fully paid and non-assessable. There were no shares of our Series A Preferred Stock outstanding as of May 4, 2017.

The purpose of authorizing our Board to issue preferred stock in one or more series and determine the number of shares in the series and its rights and preferences is to eliminate delays associated with a shareholder vote on specific issuances. Examples of rights and preferences that the Board may fix are:

- dividend rights;
- dividend rates;
- conversion rights;
- voting rights;
- terms of redemption; and
- liquidation preferences.

The existence of authorized but unissued shares of preferred stock may enable our Board to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our Board were to determine that a takeover proposal is not in the best interests of us or our stockholders, our Board could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer, stockholder or stockholder group. The rights of holders of our common stock described above, will be subject to, and may be adversely affected by, the rights of any preferred stock that we may designate and issue in the future. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Listing

Shares of our common stock are quoted on The NASDAQ Capital Market under the symbol “EYEG.”

Registration Rights

In connection with our initial public offering in February 2015, we issued warrants to the underwriters for that offering that provide for certain registration rights to the holders thereof. Each of the warrants provide that the holder shall have certain rights to participate in registrations of our common stock that we may decide to do, from time to time.

UNDERWRITING

Subject to the terms and conditions set forth in an underwriting agreement between us and Wedbush Securities Inc., whom we refer to as the underwriter, we have agreed to sell to the underwriter, and the underwriter has agreed to purchase from us, the number of shares of common stock set forth opposite its name below.

Underwriter	Number of Shares
Wedbush Securities Inc.	
Total	5,348,000

Subject to the terms and conditions set forth in the underwriting agreement, the underwriter has agreed to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased.

The underwriter is offering the shares, subject to prior sale, when, as and if issued to and accepted by it, subject to approval of legal matters by its counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriter of officer's certificates and legal opinions. The underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Discounts

The following table shows the per share and total underwriting discount to be paid to the underwriter by us at the assumed public offering price set forth on the cover page of this prospectus. Such amounts are shown assuming both no exercise and full exercise of the underwriter's option to purchase additional shares.

	No Exercise of Over-Allotment Option	Full Exercise of Over-Allotment Option
Per Share	$	$
Total	$	$

The underwriter has advised us that it proposes to offer directly to the public the shares purchased pursuant to the underwriting agreement at the public offering price set forth on the cover page of this prospectus and to certain securities dealers at the public offering price less a concession not in excess of $ per share. After the offering, the underwriter may change the offering price and other selling terms.

We have agreed to reimburse the underwriter for certain of its expenses relating to this offering; provided, however, that such expenses may not exceed $100,000 in the aggregate.

The expenses of the offering, not including the underwriting discount, are estimated at approximately $285,000 and are payable by us.

Option to Purchase Additional Shares

We have granted an option to the underwriter, exercisable for 30 days after the date of this prospectus, to purchase up to 802,200 additional shares at the public offering price, less the underwriting discount. If the underwriter exercises this option, it will be obligated, subject to conditions contained in the underwriting agreement, to purchase the shares for which the option has been exercised.

Lock-Up Agreements

We and all of our directors and executive officers have agreed that, for a period of 90 days, or the lock-up period, after the date of this prospectus subject to certain limited exceptions described below, we and they will not directly or indirectly, without the prior written consent of the underwriter, (1) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of common stock (including, without limitation, shares of common stock that may be deemed to be beneficially owned by us or them in accordance with the rules and regulations of the SEC and shares of common stock that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for common stock, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any

of the economic benefits or risks of ownership of shares of common stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of common stock or other securities, in cash or otherwise, (3) make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible into or exercisable or exchangeable for common stock or any of our other securities, or (4) publicly disclose the intention to do any of the foregoing.

These lock-up restrictions will not apply to: (1) bona fide gifts, sales or other dispositions made exclusively by the holder to the holder's family, partners, members, stockholders or affiliates (as applicable), and transfers or other dispositions by will, other testamentary documents or intestate succession, *provided* that such transferee agrees to be bound by the terms of the lock-up agreement, the parties agree to not make any filing or public announcement regarding such transfer or disposition prior to the expiration of the lock-up period and the holder notifies the underwriter at least two business days prior to the proposed transfer or disposition; (2) the exercise of warrants or stock options granted pursuant to the Company's stock option/incentive plans or otherwise, or the conversion of securities, in each case outstanding on the date of this prospectus, *provided* that the restrictions shall apply to the shares of common stock issued upon such exercise or conversion; (3) the establishment of any trading plan established pursuant to Rule 10b5-1 under the Exchange Act, *provided* that no sales or securities convertible into common stock shall be made pursuant to such plan prior to the expiration of the lock-up period, and the Company does not, and is not required to, report the establishment of such plan in any public report or filing with the SEC under the Exchange Act prior to the expiration of the lock-up period; (4) any forfeiture, sale or other transfer to the company in connection with the termination of the holder's employment with or services to the company; and (5) the transfer of shares to the company to satisfy withholding taxes for any equity award granted prior to the date of this prospectus.

The underwriter may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release common stock and other securities from lock-up agreements, the underwriter will consider, among other factors, the holder's reasons for requesting the release, the number of shares of common stock and other securities for which the release is being requested and market conditions at the time.

Indemnification

We have agreed to indemnify the underwriter against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriter may be required to make for these liabilities.

Stabilization, Short Positions and Penalty Bids

The underwriter may engage in stabilizing transactions, short sales and purchases to cover positions created by short sales, and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of the common stock, in accordance with Regulation M under the Exchange Act:

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- A short position involves a sale by the underwriter of shares in excess of the number of shares the underwriter is obligated to purchase in the offering, which creates the syndicate short position. This short position may be either a covered short position or a naked short position. In a covered short position, the number of shares involved in the sales made by the underwriter in excess of the number of shares it is obligated to purchase is not greater than the number of shares that it may purchase by exercising its option to purchase additional shares. In a naked short position, the number of shares involved is greater than the number of shares in its option to purchase additional shares. The underwriter may close out any short position by either exercising its option to purchase additional shares and/or purchasing shares in the open market. In determining the source of shares to close out the short position, the underwriter will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which it may purchase shares through its option to purchase additional shares. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions.
- Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of the common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The NASDAQ Capital Market or otherwise and, if commenced, may be discontinued at any time.

Neither we nor the underwriter makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor the underwriter makes any representation that the underwriter will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Passive Market Making

In connection with this offering, the underwriter and any selling group members may engage in passive market making transactions in our common stock on The NASDAQ Capital Market in accordance with Rule 103 of Regulation M under the Securities Exchange Act of 1934, as amended, during a period before the commencement of offers or sales of common stock and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

Listing on The NASDAQ Capital Market

Our shares of common stock are listed on The NASDAQ Capital Market under the symbol "EYEG."

Electronic Distribution

In connection with the offering, the underwriter or certain securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

The underwriter and its affiliates have provided in the past to us and our affiliates, and may provide from time to time in the future, certain financial advisory, investment banking and other services in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, the underwriter and its affiliates may effect transactions for their own account or the accounts of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

NOTICE TO INVESTORS

Notice to Investors in the United Kingdom

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any securities which are the subject of the offering contemplated by this prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any such securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;

(c) by the underwriter to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive); or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of these securities shall result in a requirement for the publication by the issuer or the underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any of the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any such securities to be offered so as to enable an investor to decide to purchase any such securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

The underwriter has represented, warranted and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by it in connection with the issue or sale of any of the securities in circumstances in which section 21(1) of the FSMA does not apply to the issuer; and

(b) it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

European Economic Area

In particular, this document does not constitute an approved prospectus in accordance with European Commission's Regulation on Prospectuses no. 809/2004 and no such prospectus is to be prepared and approved in connection with this offering. Accordingly, in relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (being the Directive of the European Parliament and of the Council 2003/71/EC and including any relevant implementing measure in each Relevant Member State) (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) an offer of securities to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to such securities which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of securities to the public in that Relevant Member State at any time:

- to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

- to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000; and (3) an annual net turnover of more than €50,000,000, as shown in the last annual or consolidated accounts; or
- in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of securities to the public" in relation to any of the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State. For these purposes the shares offered hereby are "securities."

LEGAL MATTERS

Certain legal matters with respect to the validity of the securities offered by this prospectus will be passed upon for us by Burns & Levinson LLP, Boston, MA. Lowenstein Sandler LLP, New York, New York, is acting as counsel to the underwriter in connection with this offering.

EXPERTS

The consolidated balance sheets of EyeGate Pharmaceuticals, Inc. and subsidiary as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, convertible preferred stock non-controlling interests, and stockholders' equity (deficit), and cash flows for each of the years then ended, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report dated February 23, 2017, which is incorporated by reference herein, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

We are subject to the information requirements of the Exchange Act and, in accordance therewith, file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, Washington, D.C. 20549. You may call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. These documents also may be accessed through the SEC's electronic data gathering, analysis and retrieval system, or EDGAR, via electronic means, including the SEC's home page on the Internet (*www.sec.gov*).

We post on our public website (*www.eyegatepharma.com*) 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 Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it under File No. 001-36672, which means that we can disclose important information to you by referring you to those publicly available documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below, which we have already filed with the SEC, and all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any future report or document that is not deemed filed under such provisions, prior to the termination of the offering:

- Our Annual Report on Form 10-K for the year ended December 31, 2016 filed with the SEC on February 23, 2017;
- Our Quarterly Report on Form 10-Q for the three months ended March 31, 2017 filed with the SEC on May 5, 2017;
- Our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 28, 2017;
- Our Current Reports on Form 8-K filed with the SEC on January 30, 2017, February 6, 2017, February 21, 2017, April 13, 2017 and May 4, 2017 (in each case, except for information contained therein which is furnished rather than filed); and
- The description of our common stock contained in our registration statement on Form 8-A12B filed with the SEC on July 28, 2015 and amended on July 30, 2015.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus is modified or superseded for purposes of the prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus is delivered a copy of the documents incorporated by reference into this prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following address:

EyeGate Pharmaceuticals, Inc.
271 Waverley Oaks Road, Suite 108
Waltham, MA 02452
Telephone: (781) 788-8869

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5,348,000 Shares of Common Stock

PROSPECTUS

Wedbush PacGrow

, 2017

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The expenses payable by EyeGate Pharmaceuticals, Inc. (the "Registrant" or the "Company") in connection with the issuance and distribution of the securities being registered (other than underwriting discounts and commissions, if any) are set forth below. Each item listed is estimated, except for the Securities and Exchange Commission (the "SEC") registration fee.

Securities and Exchange Commission registration fee	$ 1,333
FINRA Filing Fee	2,225
Legal fees and expenses	200,000
Accounting fees and expenses	50,000
Transfer agent fees and expenses	1,000
Miscellaneous	30,442
Total	$ 285,000

* To be provided by amendment.

Item 14. Indemnification of Directors and Officers.

Our amended and restated certificate of incorporation contains provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, the personal liability of our directors for monetary damages for breach of their fiduciary duties as directors. Our amended and restated bylaws provide that we must indemnify our directors and officers and may indemnify our employees and other agents to the fullest extent permitted by the General Corporation Law of the State of Delaware.

Sections 145 and 102(b)(7) of the General Corporation Law of the State of Delaware provide that a corporation may indemnify any person made a party to an action by reason of the fact that he or she was a director, officer, employee or agent of the corporation or is or was serving at the request of a corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of an action by or in right of the corporation, no indemnification may generally be made in respect of any claim as to which such person is adjudged to be liable to the corporation.

We have entered into indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws, and intend to enter into indemnification agreements with any new directors and executive officers in the future. We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer of us against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions. See also "Undertakings" set out in response to Item 17 herein.

Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding the shares of common stock and preferred stock and the warrants issued, and options granted, by us in the three years preceding the filing of this registration statement that were not registered under the Securities Act.

(1) In June, July and December 2014, we issued convertible promissory notes in the principal amount of approximately $1.83 million, which converted into shares of our common stock in connection with the IPO, and warrants to purchase 562,732 shares of our common stock, at an exercise price of $6.00 per share.

(2) In July 2014, we issued 15,036 shares of our common stock in connection with the amendment to our Amended and Restated License Agreement with the University of Miami.

(3) In September 2014, we issued 2,277 shares of our common stock in connection with the exercise of stock options.

(4) In January 2015, we issued 23,072 shares of our common stock in connection with the exercise of stock options.

(5) On March 7, 2016, we entered into a Stock Purchase Agreement whereby we acquired 100% of the outstanding equity interests of Jade Therapeutics, Inc. ("Jade") and Jade became a wholly-owned subsidiary of the Company (the "Acquisition"). The consideration payable by the Company to the Sellers in connection with the Acquisition (subject to adjustment as provided in the Purchase Agreement) is 765,728 shares of the Company's common stock (the "EyeGate Shares"). The EyeGate Shares consist of (i) 689,157 shares of the Company's common stock issued at closing and (ii) 76,571 shares of the Company's common stock held back for a period of 18 months for potential post-closing working capital and/or indemnification claims relating to breaches of representations, warranties and covenants contained in the Purchase Agreement.

(6) On June 30, 2016, we completed a registered direct offering of 441,000 shares of common stock and 2,776.5 shares of Series A Convertible Preferred Stock (convertible into 1,234,000 shares of common stock) (the "Series A Preferred Stock"), along with a concurrent private placement of warrants (collectively, the "June 2016 Offering"). The total net proceeds to us from the June 2016 Offering, after deducting the placement agent fees and offering expenses, were approximately $3.4 million. The investor received, for each share of common stock or for each share of common stock issuable upon conversion of a share of Series A Preferred Stock purchased in the registered direct offering, a warrant to purchase one-half of a share of common stock at an exercise price of $3.50 per share, totaling 837,500 common stock warrants. The warrant issued to the investor is initially exercisable six months following issuance and terminates five years following the initial exercise date. In addition, we issued to H.C. Wainwright & Co., LLC, the exclusive placement agent for the June 2016 Offering, warrants to purchase 33,500 shares of common stock. The warrants and the shares of common stock underlying the warrants issued in the June 2016 Offering were not registered under the Securities Act of 1933, as amended (the "Securities Act"), or applicable state securities laws.

(7) In July 2016, we issued 22,674 shares of our common stock in connection with entering into a License Agreement with the University of Utah.

The offers, sales, grants and issuances of the securities described in paragraphs (3) and (4) were deemed to be exempt from registration under the Securities Act in reliance on Rule 701. The recipients of such securities were our employees, directors, officers, consultants and advisors and received the securities under our 2005 Equity Incentive Plan. Appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about us.

The offer, sale, and issuance of the securities described in paragraphs (1), (2), (5), (6) and (7) were deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act in that the issuances of the securities to the accredited investors did not involve a public offering. The recipients of the securities in these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the securities issued in these transactions.

Item 16. Exhibits and Financial Statement Schedules.

A list of exhibits filed with this registration statement on Form S-1 is set forth on the Exhibit Index and is incorporated herein by reference.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) That:

(i) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of this registration statement as of the time it was declared effective; and

(ii) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(2) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(3) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Amendment No. 1 to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Waltham, Commonwealth of Massachusetts, on this 5th day of May, 2017.

EYEGATE PHARMACEUTICALS, INC.

By: /s/ Stephen From
Stephen From
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 1 to Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Stephen From Stephen From	President, Chief Executive Officer and Director (principal executive officer)	May 5, 2017
/s/ Sarah Romano Sarah Romano	Interim Chief Financial Officer (principal financial and accounting officer)	May 5, 2017
* Paul Chaney	Director	May 5, 2017
* Morton Goldberg	Director	May 5, 2017
* Praveen Tyle	Director	May 5, 2017
* Thomas Balland	Director	May 5, 2017
* Thomas E. Hancock	Director	May 5, 2017
* Bernard Malfroy-Camine	Director	May 5, 2017

*By: /s/ Stephen From
Stephen From
Attorney-in-Fact

EXHIBITS

Exhibit Number	Description of Exhibit
1.1**	Form of Underwriting Agreement.
2.1(1)	Stock Purchase Agreement, dated as of March 7, 2016, by and among the Registrant and the Sellers named therein.
3.1(2)	Restated Certificate of Incorporation of the Registrant.
3.2(2)	Amended and Restated By-laws of the Registrant.
3.3(8)	Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock.
4.1(3)	Specimen Stock Certificate evidencing the shares of common stock.
4.2(8)	Form of Common Stock Purchase Warrant, dated June 30, 2016.
5.1**	Opinion of Burns & Levinson LLP.
10.1(4)	2005 Equity Incentive Plan, as amended.
10.2(5)	2014 Equity Incentive Plan.
10.3(4)	Employee Stock Purchase Plan.
10.4†(4)	Transaction Protocol (License Agreement), by and between Optis B.V., Optis France SA, and Mrs. Francine Behar-Cohen, dated as of July 23, 1999.
10.5†(4)	Amended and Restated License Agreement, by and between University of Miami and EyeGate Pharma SA (f/k/a Optis France SA), dated as of December 16, 2005.
10.6†(4)	First Amendment to First Amended and Restated License Agreement of and between EyeGate Pharma SA and University of Miami, dated as of July 7, 2014.
10.7†(6)	License Agreement made as of July 9, 2015, by and among the Registrant, EyeGate Pharma S.A.S., a wholly owned subsidiary of the Registrant and Valeant Pharmaceuticals Luxembourg S.à r.l., a société à responsabilité limitée.
10.8(7)	Form of Warrant Agency Agreement, dated August 5, 2015, by and between the Registrant and VStock Transfer, LLC.
10.9(4)	Form of Indemnification Agreement.
10.10(4)	Form of Notice of Stock Option Grant pertaining to the 2014 Equity Incentive Plan.
10.11(4)	Form of Notice of Stock Unit Award pertaining to the 2014 Equity Incentive Plan.
10.12#(4)	Form of Amended and Restated Offer of Employment by and between the Registrant and Michael Manzo.
10.13#(13)	Second Amended and Restated Employment Agreement, dated February 25, 2016, by and between the Registrant and Stephen From.
10.14(8)	Form of Securities Purchase Agreement, dated as of June 27, 2016, by and among the Registrant and the Purchasers named therein.
10.15(8)	Engagement Letter, dated as of June 24, 2016, by and between the Registrant and Rodman & Renshaw, a unit of H.C. Wainwright & Co.
10.16(9)	At the Market Offering Agreement, dated as of May 24, 2016, by and between the Registrant and H.C. Wainwright & Co., LLC.
10.17(10)	Offer Letter, dated as of April 25, 2016, by and between the Registrant and Ryan Brenneman.
10.18(11)#	Separation Agreement, dated as of December 21, 2016, by and between the Registrant and Ryan Brenneman.
10.19(12)#	Offer Letter, dated as of February 1, 2017, by and between the Registrant and Sarah Romano.
10.20†(14)	License Agreement, dated February 21, 2017, by and among the Registrant, EyeGate Pharma S.A.S., a wholly owned subsidiary of the Registrant and Valeant Pharmaceuticals Ireland.

Exhibit Number	Description of Exhibit
21.1(14)	Subsidiaries of the Registrant.
23.1*	Consent of EisnerAmper LLP.
23.2**	Consent of Burns & Levinson LLP (included in Exhibit 5.1).
24.1***	Power of Attorney.

(1) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed March 7, 2016) and incorporated by reference thereto.

(2) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed February 20, 2015) and incorporated by reference thereto.

(3) Previously filed as an exhibit to Amendment No. 2 to the Company's Registration Statement on Form S-1 (filed August 29, 2014) and incorporated by reference thereto.

(4) Previously filed as an exhibit to the Company's Registration Statement on Form S-1 (filed July 30, 2014) and incorporated by reference thereto.

(5) Previously filed as an exhibit to Amendment No. 7 to the Company's Registration Statement on Form S-1 (filed December 24, 2014) and incorporated by reference thereto.

(6) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed July 10, 2015) and incorporated by reference thereto.

(7) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed August 5, 2015) and incorporated by reference thereto.

(8) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed June 27, 2016) and incorporated by reference thereto.

(9) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed May 25, 2016) and incorporated by reference thereto.

(10) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed April 29, 2016) and incorporated by reference thereto.

(11) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed December 22, 2016) and incorporated by reference thereto.

(12) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed February 6, 2017) and incorporated by reference thereto.

(13) Previously filed as an exhibit to the Company's Annual Report on Form 10-K (filed March 30, 2016) and incorporated by reference thereto.

(14) Previously filed as an exhibit to the Company's Annual Report on Form 10-K (filed February 23, 2017) and incorporated by reference thereto.

* Filed herewith.

** To be filed by amendment.

*** Previously filed.

† Confidential treatment requested as to portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.

Management contract or compensatory plan or arrangement.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Amendment No. 1 to Registration Statement of EyeGate Pharmaceuticals, Inc. on Form S-1 (No. 333-217418) to be filed on or about May 5, 2017 of our report dated February 23, 2017, on our audits of the consolidated financial statements as of December 31, 2016 and 2015 and for each of the years then ended, which report was included in the Annual Report on Form 10-K filed on February 23, 2017. Our report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. We also consent to the reference to our firm under the caption "Experts" in the Amendment No. 1 to Registration Statement on Form S-1.

/s/ EISNERAMPER LLP

New York, New York
May 5, 2017