Issuer Free Writing Prospectus Filed Pursuant to Rule 433 Registration No. 333-217418 May 5, 2017



# Providing innovative products that enhance drug efficacy and patient compliance to improve vision

#### **CORPORATE PRESENTATION**

EyeGate Pharmaceuticals, Inc.
271 Waverley Oaks Road, Suite 108 Waltham, MA 02452
www.eyegatepharma.com

## **Free Writing Prospectus Statement**



- We have filed a Registration Statement on Form S-1 with the Securities and Exchange Commission (the "SEC"), including a preliminary
  prospectus dated May 5, 2017 (the "Prospectus"), with respect to the offering of our securities to which this communication relates. Before
  you invest, you should read the Prospectus (including the risk factors described therein) and, which available, the final prospectus relating to
  the offering, and the other documents filed with the SEC and incorporated by reference into the Prospectus, for more complete information
  about us and the offering. You may obtain these documents, including the Prospectus, for free by visited EDGAR on the SEC website at
  http://www.sec.gov.
- Alternatively, we or any underwriter participating in the offering will arrange to send you the prospectus if you request it by contacting Wedbush Securities Inc., Two Embarcadero Center, San Francisco, CA 94111, by telephone (toll-free) at (213) 688-8000 or by email at vinnie.devone@wedbush.com.
- This presentation highlights basic information about us and the offering. Because it is a summary that has been prepared solely for
  informational purposes, it does not contain all of the information that you should consider before investing in our company. Except as
  otherwise noted, this presentation speaks only as of the date hereof.
- This presentation does not constitute an offer to sell, nor a solicitation of an offer to buy, any securities by any person in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation.
- Neither the SEC nor any other regulatory body has approved or disapproved of our securities or passed upon the accuracy or adequacy of this
  presentation. Any representation to the contrary is a criminal offense.
- This presentation includes industry and market data that we obtained from industry publications and journals, third-party studies and surveys, internal company studies and surveys, and other publicly available information. Industry publications and surveys generally state that the information contained therein has been obtained from sources believed to be reliable. Although we believe the industry and market data to be reliable as of the date of this presentation, this information could prove to be inaccurate. Industry and market data could be wrong because of the method by which sources obtained their data and because information cannot always be verified with complete certainty due to the limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties. In addition, we do not know all of the assumptions that were used in preparing the data from the sources relied upon or cited herein.

## **Forward Looking Statements**



Some of the matters discussed in this presentation contain forward-looking statements that involve significant risks and uncertainties, including statements relating to the prospects for the Company's lead product EGP-437, for the timing and outcome of the Company's clinical trials, the potential approval to market EGP-437, and the Company's capital needs. Actual events could differ materially from those projected in this presentation and the Company cautions investors not to rely on the forward-looking statements contained in, or made in connection with, the presentation.

Among other things, the Company's clinical trials may be delayed or may eventually be unsuccessful. The Company may consume more cash than it currently anticipates and faster than projected. Competitive products may reduce or eliminate the commercial opportunities of the Company's product candidates. If the U.S. Food and Drug Administration or foreign regulatory agencies determine that the Company's product candidates do not meet safety or efficacy endpoints in clinical evaluations, they will not receive regulatory approval and the Company will not be able to market them. Operating expense and cash flow projections involve a high degree of uncertainty, including variances in future spending rate due to changes in corporate priorities, the timing and outcomes of clinical trials, regulatory and developments and the impact on expenditures and available capital from licensing and strategic collaboration opportunities. If the Company is unable to raise additional capital when required or on acceptable terms, it may have to significantly alter, delay, scale back or discontinue operations.

Additional risks and uncertainties relating to the Company and its business can be found in the "Risk Factors" section of the Company's Annual Report on Form 10-K filed with the SEC on February 23, 2017. The Company undertakes no duty or obligation to update any forward-looking statements contained in this presentation as a result of new information, future events or changes in the Company's expectations, except as required by applicable law.

## **Follow-on Offering Summary**



Issuer	EyeGate Pharmaceuticals, Inc.			
Exchange / Ticker	NASDAQ / EYEG			
Shares Outstanding	10,878,116 common shares as of May 3, 2017			
Offering Size	\$10.0 million			
Share Composition	100% Primary			
Over-Allotment	15% greenshoe (100% Primary)			
Use of Proceeds	To support operations, including for clinical trials, for working capital and for other general corporate purposes			
Sole Book-runner	Wedbush PacGrow			

## **Investment Highlights**



#### **Near Term Commercial Ophthalmic Company**

- De novo FDA 510(k) and CE Mark filings for OBG expected by H1 2018
  - OBG commercial launch late 2018 targeting initially ~160,000 240,000 PRK procedures in U.S. annually
- NDA filing expected by H1 2018 for EGP-437
  - Product partnered with Valeant (Bausch & Lomb)

#### **Multiple Upcoming Catalysts**

- OBG: PRK Pilot 2 trial top-line data expected by late Q3 / early Q4 2017
- OBG: PRK Pivotal trial top-line data expected by Q1 2018
- EGP-437 Cataract Surgery Phase 2b top-line data expected by year-end 2017
- EGP-437 Anterior Uveitis Phase 3 top-line data expected by Q1 2018

#### Robust pipeline with positive clinical data in hand for all candidates

- Most recently announced positive results from OBG: PRK Pilot trial January 2017
- Clinical utility of hyaluronic acid (HA) well understood, further de-risking OBG product line

#### Attractive competitive profile

OBG is first and only eye drop in the U.S. targeting acceleration of re-epithelization claim

#### Validating relationship with Bausch & Lomb (Valeant) for EGP-437

Worldwide rights retained for OBG product line

#### Capital efficient development strategy

**Robust Patent Estate** 

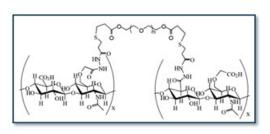
## **Clinical Pipeline**



Two platforms in the clinic with expected FDA filings as early as H1 2018

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





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



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

## **Hyaluronic Acid**



# Hyaluronic acid (HA) is a naturally occurring compound in the body

- ~15 grams of HA in an adult human body
- About 50% in the skin (promotes wound healing), also in the synovial fluid (natural lubricant)
- Rapidly degrades: one-third is naturally turned-over (degraded and synthesized) every day

#### **Properties**

High-molecular weight HA is non-immunogenic

High-molecular weight HA binds up to 1,000 times its volume in water weight

HA provides: hydration, lubrication of joints, and providing a meshwork for cell migration

Regulatory Approvals

#### U.S. - Dermatology & Osteoarthritis

- HA approved in the U.S. as a device to dress for wound and burn management (dermatology)
- HA injections approved in the U.S. as a device to treat knee pain caused by osteoarthritis

#### Ex-U.S. - Dry Eye & Wound Healing

 HA eye drops are the standard of care in Europe and Asia for wound healing, dry eye and/or ocular surface damage

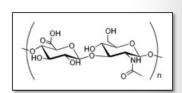
## **CMHA-S Platform**

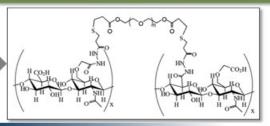


#### Differentiation: CMHA-S is a crosslinked version of Hyaluronic acid

#### Hyaluronic acid

#### **Crosslinked HA**





#### HA crosslinking prevents degradation and increases viscosity

- Crosslinking HA creates a 3D structure that stabilizes the molecule (resists degradation)
- Adheres longer to the ocular surface (90 minutes)
- · Higher viscosity that thins with blinking and is non blurring
- Scaffolding matrix that protects the ocular surface

## EyeGate's first CMHA-S product is a topical application (eye drop) for treating a wide variety of ocular surface pathologies

- EyeGate Ocular Bandage Gel or OBG (eye drop): A 0.75% concentration of crosslinked HA
- Corneal epithelial defects can lead to ocular infections, inflammation, corneal neovascularization, and vision loss
  if not treated promptly and healed rapidly



#### Demonstrated efficacy and safety across several animal studies



#### Commercially available as a veterinary device

- Manufactured by SentrX Animal Care
- Sold in the U.S. and certain European countries by Bayer Animal Health as Remend<sup>®</sup> Corneal Repair<sup>1</sup>
- 5 years in dogs, cats and horses, with an excellent safety profile

#### Efficacy of CMHA-S has been demonstrated in various animal pathology models

- Post traumatic corneal stromal ulcers (dogs and cats)
- Corneal abrasion and alkali burn injuries (rabbits)
- Dry eye (rabbits and dogs)

#### Molly: 12 year old cat with a non-healing corneal defect







B. Ulcer healing after 12 days of using 0.75% CMHA-S

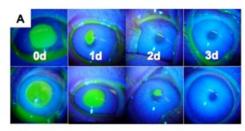
 $1. \, {\it EyeGate \ has \ human \ ophthalmic \ rights \ only. \ Visit \ http://www.bayerdvm.com/show.aspx/rem.end-cross-linking-video}}$ 

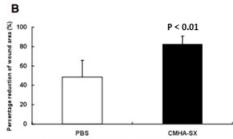
## **Healing Corneal Abrasions and Alkali Burns**

Efficacy Study: Rabbits1

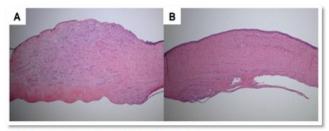


CMHA-S treated central corneal epithelium exhibited a faster wound closure CMHA-S treated cornea exhibited "more normal" epithelial and stromal organization





A. Fluorescein staining of corneal epithelial abrasions B. Quantitative analysis at 24 hours; 49% vs 83% complete



#### Histology of alkali burn healing

- A. Control at Day 12 central wound with unhealed corneal epithelium
- B. CMHA-S treated central epithelium and corneal stroma showing a better organization than control
- Abrasion: Wound closure complete by 48 hours with CMHA-S
- Burns: Complete re-epithelization at Day 12 for CMHA-S but not for control

1. Guanghui Yang, Ladan Espandar, Nick Mamalis and Glenn D. Prestwich, Veterinary Ophthalmology 2010



First-in-human Clinical Trial Completed

Announced positive data evaluating ability of EyeGate OBG to accelerate corneal surface re-epithelialization following bilateral photorefractive keratectomy (PRK)

- ✓ PRK is an efficacious alternative for patients seeking surgical correction of refractive errors who are poor LASIK candidates
- ✓ PRK surgery provides several advantages as indication to evaluate OBG's ability
  - Larger epithelial defects: All eyes randomized at time zero with same size defect
  - Homogenous population: All eyes healthy (i.e. normal stem cell function) and will heal at ~same rate
- √ 39 subjects randomized to one of three groups: both eyes received the same treatment
  - Group 1: EyeGate Ocular Bandage Gel QID for 2 weeks after surgery
  - Group 2: EyeGate Ocular Bandage Gel QID for 2 weeks after surgery in combination with a Bandage Contact Lens (BCL)
  - Group 3: BCL and preservative-free artificial tears





- ✓ Excellent safety and tolerability
  - No adverse events in OBG arm
  - No corneal haze out to Day 28
- √ ~30% more patients healed by Day 3 with OBG than standard-of-care (BCL+AT)
- ✓ Additionally, wound size was ~53% smaller as early as Day 1 (24 hours post surgery) with OBG

		# Subjects	Closed Wound: Day 3		Surface Area (mm²)	
		per Arm	#	%	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 Sul	ojects Enrolled	39				
OBG vs B	CL: % Superior			54.8%	53.3%	94.4%

<sup>1.</sup> BCL = bandage contact lens and AT = artificial tears



Eye Drop Regulated as Device

Meeting with FDA (Nov 2016) confirms device de novo 510(k) filing available for OBG

# Device - Indication for Use (IFU): Acceleration of re-epithelialization of large corneal epithelial defects in patients having undergone PRK

- Broader IFU: Demonstrate benefit in additional clinical trial(s) based on size of defect and not a specific underlying cause or indication
  - Superiority claim against standard-of-care not necessary

# CMHA-S Promotes re-epithelization (wound healing) Accelerates re-epithelization Exhibits "more normal" epithelial and stromal organization and morphology

POTENTIALLY FASTER RESTORATION OF VISION AND BETTER VISUAL OUTCOMES

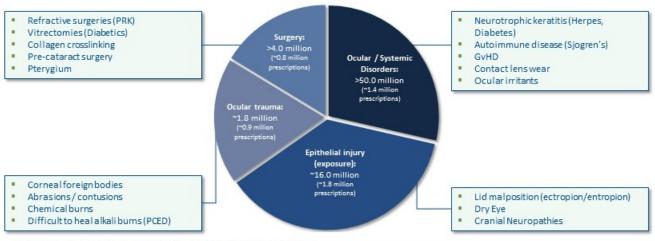
**Market Opportunity** 



#### EyeGate has retained control of worldwide commercial rights to CMHA-S

- De novo FDA 510(k) filing targeted for H1 2018
- European CE Mark targeted for H1 2018, commercializing late 2018
- Estimate 160,000 240,000 PRK procedures<sup>1</sup> in the U.S. annually

#### Corneal Epitheliopathy: U.S. Numbers



 $1. \, {\sf Source: American \ Academy \ of \ Ophthalmology \ (https://www.aao.org/newsroom/eye-health-statistics)}}$ 

## **CMHA-S Solid or Film Formulations (2 Versions)**

Research Funded by Grants



#### Department of Defense SBIR Phase 2 Grant: Ocular Surface Shield

A sterile, field-stable product easily applied to immediately protect and promote healing of the ocular surface

- Desired Properties of the Film:
  - ✓ Easy to place, requiring no sutures or glue
  - ✓ Allows for immediate stabilization of the eye following trauma
  - ✓ No refrigeration or freezer required: Room stable
  - ✓ Prevents adhesions and scar formation between the globe and the conjunctiva

#### National Science Foundation SBIR Grant: Phase 2 Status

Films/Pellet: Topical sustained-release delivery vehicle placed in inferior fornix

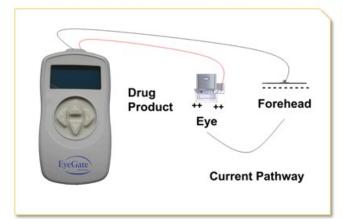
- Release Profile: High-load product released out to 12 weeks (in vitro study)
- · Retention Rate: Re-engineering design for longer retention on eye
- Delivery vehicle for short or long-term acute or chronic conditions including
  - Antibiotic: bacterial conjunctivitis / keratitis
  - Antihistamine: seasonal / perennial allergies
  - Prostaglandins: glaucoma

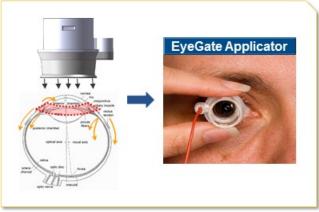
## **Iontophoresis Delivery Platform**



#### A non-invasive method of propelling charged active compounds into ocular tissues

- ✓ Small electrical current (constant); current has same charge as active substance (drug)
- ✓ Electrode creates repulsive electromotive forces (like charges repel)
- ✓ Drug migrates toward return electrode, mobility a function of molecular weight and charge
- ✓ Drug dose controlled by 2 variables: Current (mA) x application time (minutes)
- ✓ Easy to use: ophthalmologist or optometrist in <5 minutes.
  </p>
- ✓ More than 2,400 treatments performed in office setting



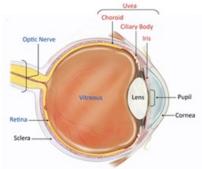


## **EGP-437: A Potent Anti-inflammatory Agent**



(corticosteroid - dexamethasone phosphate)

#### Two indications licensed by Valeant: cataract surgery and anterior uveitis



Grade	Cells	
0	<1	
0.5	1 to 5	
1.0	6 to 15	
2.0	16 to 25	
3.0	26 to 50	
4.0	> 50	









- Etiology assault based (cataract surgery) vs primarily auto-immune (uveitis)
- Inflammation of uveal tissue including iris and/or ciliary body
- Inflammation severity determined by number of white blood cells in the anterior chamber of the eye (slit-lamp used)
- Primary end-point is proportion of subjects with zero cells in EGP-437 arm vs control arm

Cataract surgery incidence: ~4 million1 annually in U.S. Uveitis incidence: ~26.6 to 102 per 100,000 annually in U.S.

1. Market Scope, 2015 Comprehensive Report on The Global IOL Market, June 2015

## **EGP-437: A Highly Differentiated Product**



**Dramatically Reduces Patient Burden** 

Standard of care for both indications: corticosteroid eye drops

Example from first pivotal anterior uveitis trial...





## **Cataract Surgery**



EGP-437 demonstrated safe and effective in reducing inflammation and preventing pain as early as Day 1 with two different iontophoretic doses

#### **Trial Design**

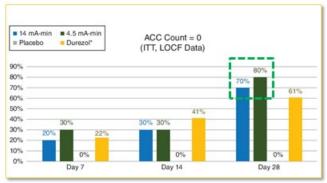
- 80 subjects who underwent unilateral cataract extraction with a monofocal intraocular lens
- 7 cohorts whereby EGP-437 was delivered in iontophoretic doses of 4.0 mA-min, 4.5 mA-min, 9.0 mA-min and 14.0 mA-min, 1 placebo cohort at 14.0 mA-min
- Different dosing regimens: 2 or 3 doses, Day 0, Day 1, Day 4 and potential for additional treatment on Day 7
- Primary outcomes:
  - 1 Proportion of subjects with anterior chamber cell (ACC) count of zero
  - 2 Proportion with pain score of zero

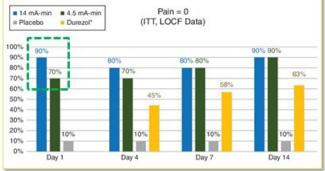
## **Cataract Surgery**

Positive results announced



#### EGP-437 demonstrated safe and effective in reducing inflammation and preventing pain





# Cohorts receiving the 4.5 mA-min and the 14 mA-min doses of iontophoretic EGP-437 generated the most encouraging results

- Cell count (ACC) of zero in 20-30% of patients at day 7 and 70-80% of patients at Day 28
- ✓ Percentage of patients in 4.5 and 14 mA-min doses with zero pain on day 1 was 70% and 90% respectively

#### Phase 2b trial initiation targeted for Q2 2017

Durezol data from CDER Application Number 22-212: Medical Review for Durezol, studies ST-601A-002a and 002b. Durezol data shown is based on combined data from both studies. QID dose, ITT, LOCF.
 EGP-437 data from 14mA-min dosed on Days 0, 1, and 4 (some subjects received additional dose at Day 7) and is ITT, LOCF.

## **Anterior Uveitis**

#### Initial Phase 3 Non-Inferiority Trial





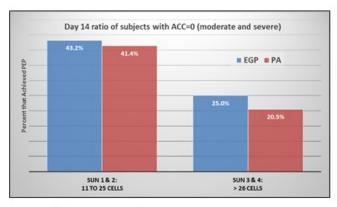
- Two 3 minute treatments of iontophoretically delivered EGP-437 (Day 0 and Day 7) vs corticosteroid eye drops taken up to 8 times per day for 28 days
- Primary end point: Percentage of subjects with ACC count of zero at Day 14
- Safety: Review of side effects, steroid induced increase in intraocular pressure

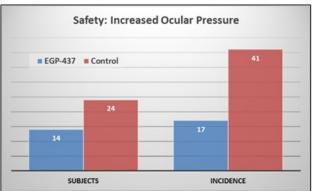
## **Anterior Uveitis**





#### EGP-437 demonstrated safe and effective in reducing inflammation vs positive control





- ✓ Successfully demonstrated similar response to standard of care (corticosteroid eye drops - prednisolone acetate 1%)
- ✓ Lower incidence of increased intraocular pressure (IOP) with EGP-437 treatment

Confirmatory Phase 3 trial ongoing: Top-line data expected Q1 2018

1. ITT = Intent to Treat
2. Primary End Point (PEP): Total cell clearing (ACC) at Day 14





- Exclusive licenses to manufacture, sell, distribute and commercialize throughout the world for use in the fields of cataract surgery and uveitis
  - Total upfront and milestone payments of approximately \$135 million
    - Includes development and commercial milestones
  - Royalties based on net sales: high single digits with upward adjustment based on minimum sales for cataract surgery indication
- EyeGate responsible for completion of the clinical development and FDA filing for both indications
- Valeant responsible for development outside U.S.
- Valeant has right of last refusal for product outside of licensed fields
  - For EGP-437 delivered with Iontophoretic EG II Delivery System

## **Macular Edema**





#### Trial demonstrated iontophoresis non-invasively delivers efficacious quantities to back of eye

Macular Edema (ME): Abnormal thickening of macula associated with accumulation of excess fluid within the neurosensory retina

	Number	DME	RVO	СМЕ
Phakic	9	6	3	
Pseudophakic	9	4	3	2

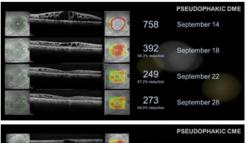
Efficacy: one-third of subjects responded

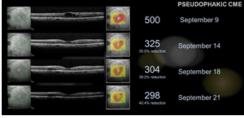
 ✓ Positive response from all subtypes (DME, RVO, and CME)¹

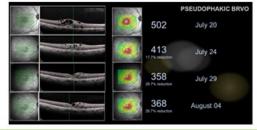
Excellent Safety: No increase in IOP

#### **Enrollment completed**

- Under review for further development
- Value in preventing CME post cataract surgery







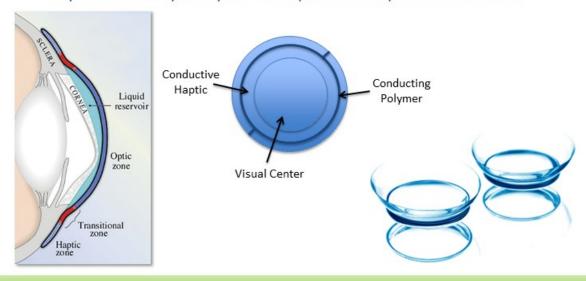
<sup>1.</sup> CME: cystoid macular edema, DME: diabetic macular edema, RVO: retinal vein occlusion

## **Evolution of a Platform**

#### At Home Version



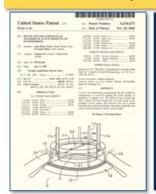
- Objective: Drug loaded contact lens with iontophoresis electronics
- Two layer lens
  - Layer 1: Sits on surface of eye loaded with drug
  - Layer 2: Sits on top of Layer 1 incorporates iontophoresis electronics



## **EyeGate Patent Portfolio**



#### Possesses comprehensive IP protection to ensure long-term leadership in ophthalmology





Iontophoresis + EGP-437: Ten families

• 103 granted patents: 18 U.S. and 85 foreign

• 11 pending patents: 3 U.S. and 8 foreign

Expiring out to 2029

Jade Therapeutics acquisition: Three families

4 pending patents: 2 U.S. and 2 foreign



#### Patents held through Licenses: Three families

Biotime (CMHA-S): Two families

8 granted patents: 2 U.S. and 6 foreign

Expiring out to 2028

University of Utah: One family

• 6 granted + 2 pending patents: 1 U.S. and 7 foreign

Expiring out to 2029

## **Clinical Catalysts**

**Key Inflection Points** 





## **Management and Board of Directors**



#### Management

#### Stephen From, President and CEO

- Former CEO at Centelion SAS (Aventis subsidiary)
- Qualified Chartered Accountant at PwC

#### Barbara Wirostko, MD, Chief Medical Officer

- Former founder and CSO at Jade Therapeutics
- Former Senior Medical Director at Pfizer
- M.D. and residency at Columbia University

#### Sarah Romano, Interim CFO

- Extensive experience with financial reporting for public companies and as an auditor at PwC
- · Certified Public Accountant
- Masters of Accounting from Boston College

#### **Board of Directors**

#### Paul Chaney, Chairman

- President, CEO at PanOptica
- Former EVP and President at Eyetech Pharmaceuticals
- Led Eyetech's IPO in 2004 through OSI Pharma acquisition

#### Morton Goldberg, MD

- Joseph E. Green Professor of Ophthalmology at Wilmer Eye Institute, Johns Hopkins University School of Medicine
- Former Professor and Chairman of Department of Ophthalmology at University of Illinois College of Medicine

#### Praveen Tyle, PhD

- EVP of Research & Development at Lexicon Pharmaceuticals
- Former CEO and Director of Osmotica Pharmaceuticals
- Former EVP and CSO at United States Pharmacopeia

#### **Thomas Balland**

- Managing Director at IPSA
- Former board member at CMC Biologics, Immutep,
   SpineVision and SpineGuard

#### Bernard Malfroy-Camine, PhD

- President, CEO of ViThera Pharmaceuticals
- Director, Business Development US Ops at Voisin Consulting
- Founder of MindSet Rx

#### **Thomas Hancock**

- Principal of Nexus Medical Partners
- Senior Analyst and MD at US Bancorp Piper Jaffray
- Numerous positions at Genentech

## **Summary**



#### Clinical-stage Specialty Pharma Ophthalmology Company

#### Ocular Bandage Gel for PRK:

- First and only eye drop in the U.S. targeting acceleration of re-epithelization claim
- OBG: PRK Pilot 2 trial top-line data expected by late Q3 / early Q4 2017
- OBG: PRK Pivotal trial top-line data expected by Q1 2018
- De Novo 510(k) and CE Mark filing targeted for H1 2018
- Commercial launch late 2018 targeting ~160,000 - 240,000 PRK procedures in U.S. annually

#### **EGP-437 for Anterior Uveitis:**

- Successfully demonstrated similar response to standard of care with lower incidence of increased IOP
- Partnered with Valeant
- Phase 3 top-line data expected by Q1 2018
- NDA filing expected by H1 2018

#### EGP-437 for Cataract Surgery:

- Demonstrated ability to control post operative pain and inflammation without the need for drop therapy
- · Partnered with Valeant
- Phase 2b top-line data expected by YE 2017
- Phase 3 initiation expected by Q1 2018
- NDA filing expected by H2 2018