

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM 8-K**

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

Date of report (Date of earliest event reported): **January 9, 2017**

**EYEGATE PHARMACEUTICALS, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation)

**001-36672**

(Commission File Number)

**98-0443284**

(IRS Employer Identification No.)

**271 Waverley Oaks Road  
Suite 108  
Waltham, MA**

(Address of principal executive offices)

**02452**

(Zip Code)

**(781) 788-8869**

(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 7.01. Regulation FD Disclosure.**

EyeGate Pharmaceuticals, Inc. (the “Company”) hereby furnishes the updated investor presentation attached as Exhibit 99.1 to this Current Report on Form 8-K, which the Company may use in presentations to investors from time to time, including at the 35<sup>th</sup> Annual J.P. Morgan Healthcare Conference, being held January 9-13, 2017, in San Francisco, CA.

The information furnished pursuant to Item 7.01, including Exhibit 99.1, shall not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

The information furnished in this report, including Exhibit 99.1, shall not be deemed to constitute an admission that such information or exhibit is required to be furnished pursuant to Regulation FD or that such information or exhibit contains material information that is not otherwise publicly available. In addition, the Company does not assume any obligation to update such information or exhibit in the future.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

The Company hereby files the following exhibit:

99.1 Presentation of the Company, dated as of January 9, 2017.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

**EYEGATE PHARMACEUTICALS, INC.**

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

Date: January 9, 2017

**Exhibit Index**

99.1 Presentation of the Company, dated as of January 9, 2017.



# EyeGate Pharmaceuticals, Inc.

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

*Corporate Presentation*

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A faint, light blue background image of a human eye, with a white grid pattern overlaid on the iris area.

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 March 30, 2016 and the Company's Quarterly Report on Form 10-Q filed November 02, 2016. 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.

- **Ophthalmology company (NASDAQ: EYEG)**
- **EGP-437 (corticosteroid): proprietary delivery system**
  - **Anterior Uveitis:**
    - NDA submission year-end 2017
    - Licensed to Valeant Pharmaceuticals (Bausch + Lomb)
  - **Cataract Surgery:**
    - Phase 2 trial to be initiated Q1 2017
    - Supplemental NDA filing H2 2018
- **Crosslinked HA (Eye drop formulation):**
  - **Photorefractive Keratectomy (PRK):**
    - First in man trial results Q1 2017
    - FDA De Novo 510(k) filing by year-end 2017
    - European CE Mark by year-end 2017

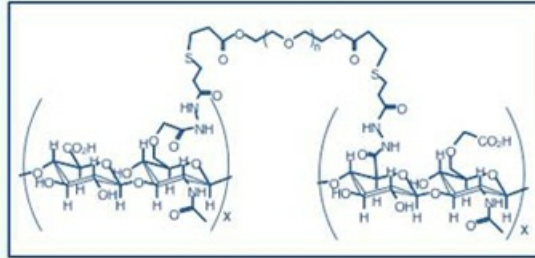
Product	Indication	Stage	Targeted Filing Dates
EGP-437 Iontophoresis	Anterior Uveitis	• Phase 3 Pivotal Trial: Enrolling	• NDA filing targeted for year-end 2017
	Cataract Surgery	• Phase 1b/2a completed • Initiating Phase 2 Trial	• NDA supplemental filing targeted for H2 2018
OBG Crosslinked HA	Photorefractive keratectomy (PRK)	• Pilot Trial completed: Data due Q1 17 • Masked Trial Initiation: Q2 17	• 510(K) De Novo filing targeted for year-end 2017 • CE Mark targeted for year-end 2017



## Two Unique Ophthalmic Platforms



Iontophoresis

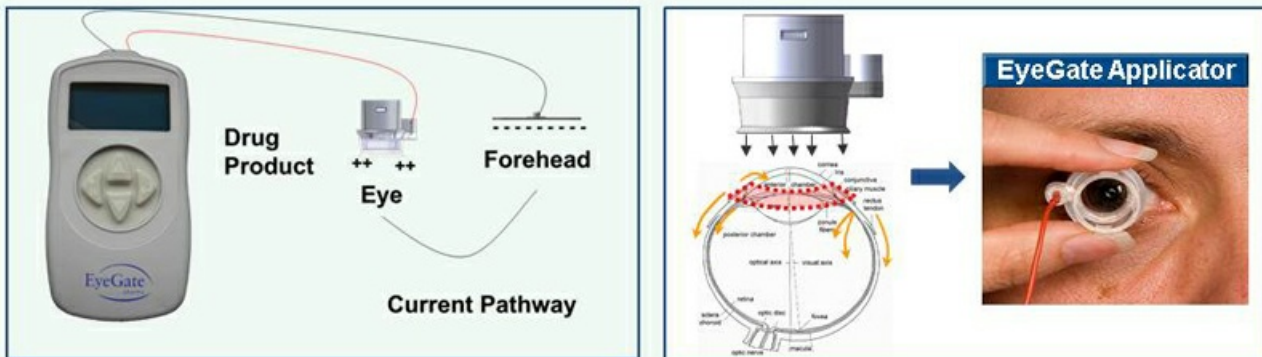


CMHA-S

## Iontophoresis Platform: A Non-Invasive Method of Propelling Charged Active Compounds Into Ocular Tissues

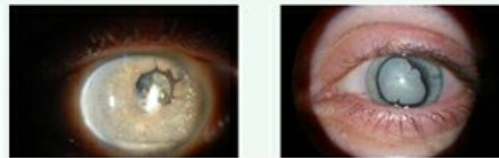
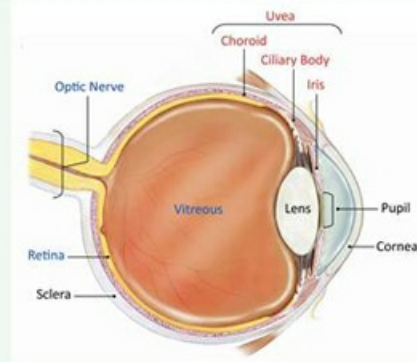


- Small electrical current (constant); current has same charge as active substance (drug)
- Electrode creates repulsive electromotive forces (like charges repel)
- Drug migrates toward return electrode, mobility a function of molecular weight and charge
- Drug dose controlled by 2 variables: Current (mA) x Application time (minutes)
- Software-regulated current and duration ensures proper dosing of compatible compounds
- Easy to use: ophthalmologist or optometrist in <5 minutes
- More than 2,000 treatments performed in clinic



## Uveitis Overview

- Inflammation of uvea tract
- Estimated 18% experience transient or permanent loss of vision annually
- Incidence in U.S. from approximately 26.6 – 102 per 100,000 annually
- Severity determined by number of white blood cells in the anterior chamber of the eye (Slit-lamp is used)
- Subjects required minimum 11 cells to be randomized to study (moderate to severe)



Non-compliance leads to sight-threatening complications

**Standard of care: corticosteroid eye drops**

- First pivotal Phase 3 trial: 2 EyeGate treatments vs. 154 eye drop treatments



vs.



**2 to 3  
treatments**

**154 treatments**

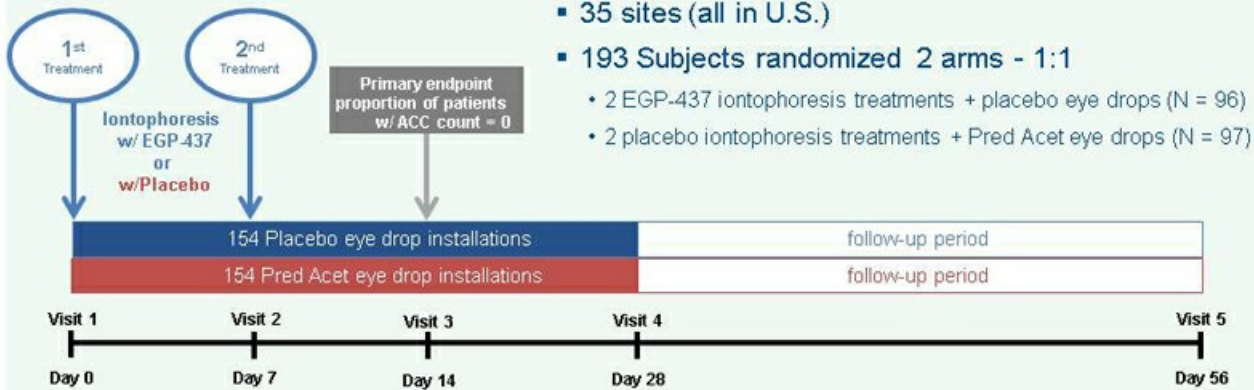


# Initial Phase 3 Non-Inferiority Anterior Uveitis Trial

Trial Design and High-Level Results



## Trial Design

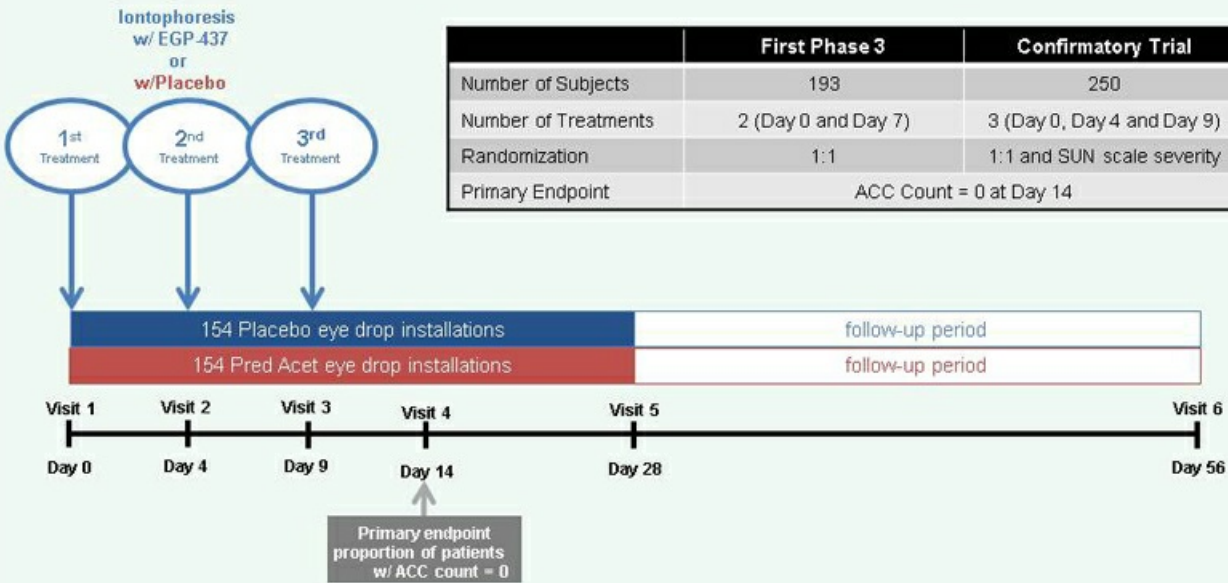


- 35 sites (all in U.S.)
- 193 Subjects randomized 2 arms - 1:1
  - 2 EGP-437 iontophoresis treatments + placebo eye drops (N = 96)
  - 2 placebo iontophoresis treatments + Pred Acet eye drops (N = 97)

## High-Level Results

- Successfully demonstrated same response rate when comparing EGP-437 to standard of care (prednisolone acetate 1%)
- Lower incidence of increased intraocular pressure (IOP) with EGP-437 treatment

# Anterior Uveitis: Confirmatory Pivotal Phase 3 Trial Design

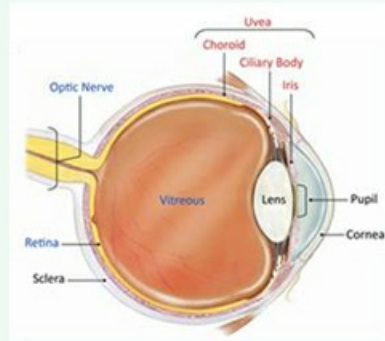


- **Control arm:** Same dose and frequency
- **Active arm:** Additional iontophoretic treatment prior to Primary Endpoint visit
  - Same iontophoretic dosage: 1.5mA by 2.7 minutes

- **Valeant Pharmaceuticals – Bausch + Lomb (NYSE/TSX: VRX)**
  - Exclusive license to manufacture, sell, distribute and commercialize throughout the world for use in field of uveitis
    - Upfront cash payment and milestone payments
    - Royalties based on net sales: high single digits
  - EyeGate responsible for completion of the development of anterior uveitis indication in U.S.
  - Valeant responsible for development outside U.S.
  - Valeant has right of last refusal for product outside field of uveitis
    - Must negotiate for access to additional indications

## Cataract Surgery Overview

- Ocular inflammation and pain are common side effects following cataract surgery
  - > 24 million people age 40 and older have cataracts in the US
  - Nearly four million cataract surgeries are performed each year in the US<sup>1</sup>
  
- **Completed Phase 1b/2a, 80 subject open-label dose ranging trial**
  - Subjects enrolled into cohorts (10 subjects/cohort)
  - Primary outcomes:
    - Proportion of subjects with anterior chamber cell (ACC) count of zero and
    - Proportion with pain score of zero



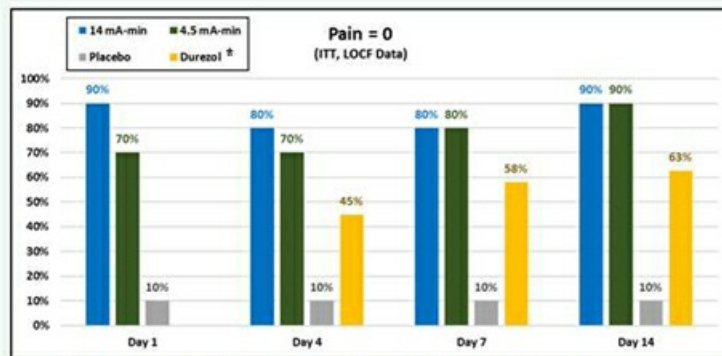
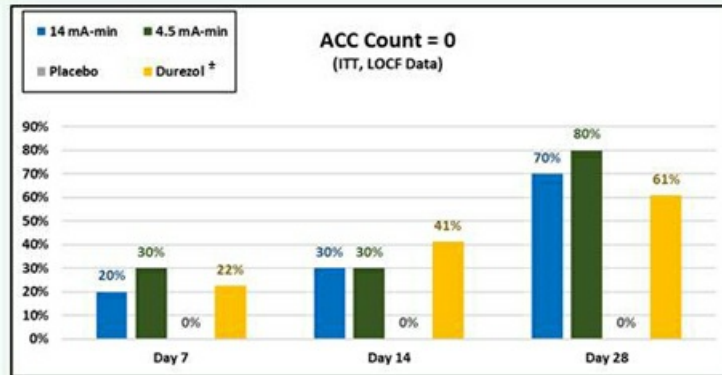


# Post-Cataract Surgery Inflammation

Positive Data Announced

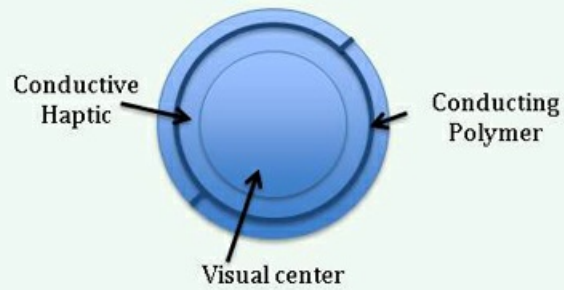
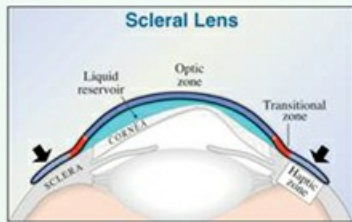


- EGP-437 safe and effective in reducing inflammation and preventing pain with 2 different iontophoretic doses.
- Best responses observed with 4.5 mA-min and 14.0 mA-min doses
- Percentage of patients with ACC count of zero greater than Durezol\* at Day 7 and Day 28
- Percentage of patients with zero pain better than Durezol\* at Day 4, 7 and 14
- 8 of 10 subjects rescued by Day 4 in placebo arm – control arm for registration trials.
- Phase 2 trial initiation targeted for 1H 2017



\*Durezol data from CDER Application Number 22-212; Medical Review for Durezol, studies ST-001A-002a and 002b. Durezol data shown is based on combined data from both studies. Q10 dose, ITT, LOCF.  
EGP-437 data from 14mA-min dosed on Day 0, 1, and 4 (some subjects received additional dose at Day 7) and 4 (ITT, LOCF).

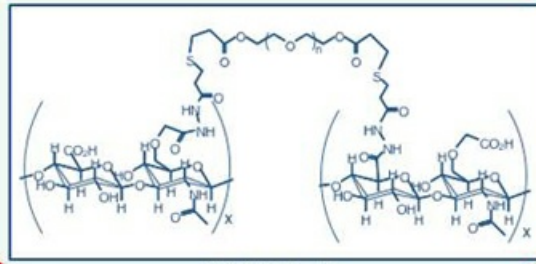
- **Objective:** Drug loaded contact lens with iontophoresis electronics
- **Two layer lens**
  - Layer 1: sits on surface of eye – loaded with drug
  - Layer 2: sits on top of Layer 1 – incorporates iontophoresis electronics



## Two Unique Ophthalmic Platforms

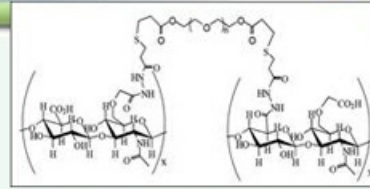


Iontophoresis



CMHA-S

- Cross-linked thiolated hyaluronic acid (CMHA-S) platform
  - Hyaluronic Acid (HA) – a polymer of disaccharides



- HA occurs naturally in the human body with qualities ideal for ocular surface
  - **Promotion of wound healing and lubrication**
- Native HA has a relatively short half-life (**degrades rapidly**)
  - Crosslinking HA creates a 3D structure that stabilizes the molecule (**resists degradation**)
  - Adheres longer to the ocular surface
  - Higher viscosity that thins with blinking and is **non blurring**
  - Matrix **protects the ocular surface**
- Can be formulated as a liquid (**eye drop**) or a solid (shield/film)
  - First-in-man clinical trial with eye drop formulation completed
  - Data expected Q1 2017



- A clear hydrogel (or liquigel) eye drop with a 0.75% concentration of CMHA-S
  - Cross-linked to provide reduced degradation on the eye
  - Exhibits significant shear thinning properties, that enables better residence time with less optical blur
- Forms a thin layer over the ocular surface, protecting the eye:
  - **For acceleration of re-epithelialization of large corneal epithelial defects in patients having undergone photorefractive keratectomy (PRK)**
- Commercially available as a veterinary device, manufactured by SentrX Animal Care and sold in the U.S. by Bayer Animal Health as Remend® Corneal Repair<sup>1</sup>
  - 5 years in dogs, cats and horses, with an excellent safety profile
- Efficacy has been demonstrated in masked, randomized clinical studies of corneal defects in dogs and cats



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

- Non-healing at 42 days (A)
- Ulcer healing after 12 days of using 0.75% CMHA-S (B)

1. EyeGate has human ophthalmic rights only. Visit <http://www.bayerdvm.com/show.aspx/remend-cross-linking-video>

# Healing Corneal Ulcers with an Eye Drop

Efficacy Study: Cats and Dogs



- Post-traumatic corneal stromal ulceration is painful and potentially sight-threatening
- Study Objective<sup>1</sup>: Compare healing time (corneal re-epithelialization) of corneal stromal ulcers in cats and dogs in a clinical setting using crosslinked CMHA-S versus non-crosslinked HA
  - Animals diagnosed with naturally occurring acute corneal stromal ulceration
  - Animals randomized to either arm, double-masked
  - Animals received 1-2 drops of CMHA-S or HA in affected eye, 3x/day, until healed
  - Ulcer presence evaluated by fluorescein staining; time to ulcer healing (no staining) documented
- Results: Ulcers healed significantly faster with CMHA-S than with non-crosslinked HA
  - Cats (N=30 or 15 per arm): 21.0 vs 31.8 days (p=0.01) for CMHA-S vs HA respectively
  - Dogs (N=30 or 15 per arm): 14.8 vs 18.3 days (p=0.04) for CMHA-S vs HA respectively
- A topical treatment that increases rate of ulcer healing would potentially be clinically important



### Finnegan Bell, a 5 year old cat with a non-healing corneal defect

- Non-healing at 35 days (A)
- Healed after 10 days of using 0.75% CMHA-S (B)

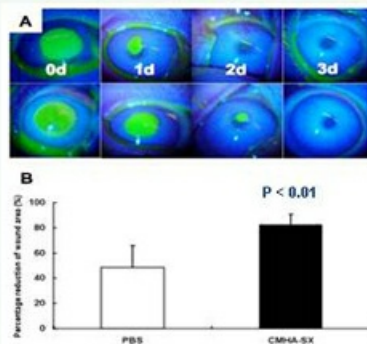
1. ARVO poster 2016: Williams, University of Cambridge (UK); Wlrostko, EyeGate; Mann, EyeGate

# Healing Corneal Abrasions and Alkali Burns

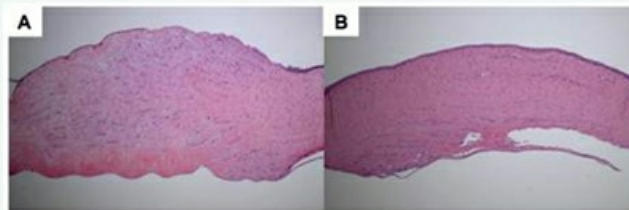
Efficacy Study: Rabbits

In addition to enhanced rate of healing, CMHA-S appears to significantly improve the quality of the healed corneal epithelium

- Study Objective<sup>1</sup>: Evaluate the efficacy of CMHA-S for treatment of corneal epithelial abrasion and standardized alkali burn injuries
  - 12 NZW rabbits, 6 per group, both eyes, wounds = 6.0mm x 6.0mm
  - Rabbits received CMHA-S drops in right eye and PBS drops in left eye (control), 4x/day for 1 week
  - Wound size determined by fluorescein staining; corneas collected for histological examination
- Results: Wound closure rate of central corneal epithelium faster in CMHA-S group
  - Abrasion: Wound closure complete at 48 hours with CMHA-S
  - Burns: Complete re-epithelization at Day 12 for CMHA-S but not for control
  - Also, CMHA-S treated cornea exhibited better epithelial and stromal organization than control group



A. Fluorescein staining of corneal epithelial abrasions  
B. Quantitative analysis at 24 hrs; 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



- Epithelial defects can lead to ocular infections, inflammation, corneal neovascularization, and vision loss if not treated promptly and healed rapidly.
  - Infectious keratitis (corneal infections and ulcers) that result from an exposed corneal surface can be a major cause of vision loss.
- The World Health Organization estimates that corneal opacities, including corneal ulceration, are the 4<sup>th</sup> leading cause of blindness in the world.
  - Annual occurrence of corneal ulcers is roughly 1.5 to 2 million cases
- Billion \$ opportunity as corneal epithelial defects are highly prevalent
  - 18% of emergency room visits (trauma, work related injuries)
  - Military (chemical and blast injuries)
  - Diabetics with corneal wounds
  - Superficial Punctate Keratitis
  - Surgical procedures including, Lasik, Photorefractive Keratectomy (PRK) and Cataract
- **NO eye drop approved or available in the US for accelerating corneal re-epithelization**



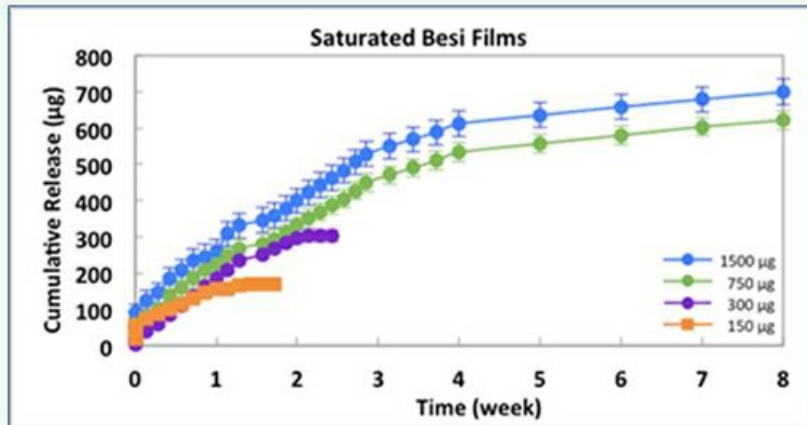
## 1. DoD SBIR Grant: Phase II Status

- **Ocular Surface Shield:** A sterile, field-stable product that is easily applied to immediately protect and promote healing of the ocular surface
- Applied directly onto the damaged cornea at the time of injury – without suturing or adhesives – should improve "return to duty" rates and visual outcomes not only for combatants but also for civilians suffering from serious ocular surface conditions
- **Desired Properties of the Film:**
  - Easy to place, requiring no sutures or glue
  - Allows for immediate stabilization of the eye following trauma
  - Remains in place during the initial healing process, and up to 7 days
  - Promotes ocular tissue repair
  - **Prevents adhesions and scar formation** between the globe and the conjunctiva



## 2. NSF SBIR Grant: Phase II Status

- **Films/Pellet:** Topical sustained-release delivery vehicle placed under inferior fornix
  - Release Profile: High-load product still releasing at 8 weeks (*in vitro* study ongoing)
  - Retention Rate: Re-engineering design for longer retention rates to mirror release profile
  - Delivery vehicle for short or long-term acute or chronic conditions including
    - Antibiotic: bacterial conjunctivitis/keratitis
    - Antihistamine: seasonal/perennial allergies
    - Prostaglandins: glaucoma



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