CORPORATE OVERVIEW

November 2021

KIORA PHARMACEUTICALS

Forward Looking Statements

Some of the statements in this press release are "forward-looking" and are made pursuant to the safe harbor provision of the Private Securities Litigation Reform Act of 1995. These "forward-looking" statements include statements relating to, among other things, the development and commercialization efforts and other regulatory or marketing approval efforts pertaining to Kiora's products, including KIO-101, KIO-201 and KIO-301, as well as the success thereof, with such approvals or success may not be obtained or achieved on a timely basis or at all. These statements involve risks and uncertainties that may cause results to differ materially from the statements set forth in this press release, including, among other things, market and other conditions and certain risk factors described under the heading "Risk Factors" contained in Kiora's Annual Report on Form 10-K filed with the SEC on March 25, 2021 or described in Kiora's other public filings. Kiora's results may also be affected by factors of which Kiora is not currently aware. The forward-looking statements in this press release speak only as of the date of this press release. Kiora expressly disclaims any obligation or undertaking to release publicly any updates or revisions to such statements to reflect any change in its expectations with regard thereto or any changes in the events, conditions, or circumstances on which any such statement is based, except as required by law.

Addressing Unmet Needs in Eye Care

Compelling Value Proposition

New Leadership – Renewed Focus

- Efficient investment to clinical inflection points

Large & Underserved Market Opportunities

- Transformative and reprioritized pipeline

Diversified Portfolio

Revolutionary small molecule with the potential to restore vision in patients with inherited or age related retinal degeneration

- Unique small molecule MOA restores light perception
- *Entering Ph1b in Q3 2022*

Small molecule DHODH inhibitor to treat immunologic eye disease

- Validated approach to reduce inflammation
- *Ph1/2a data in Q4 2021*

Eye drop to accelerate ocular wound healing and protect the ocular surface

- Next generation hyaluronic acid (HA)
- *Ph3b ready*

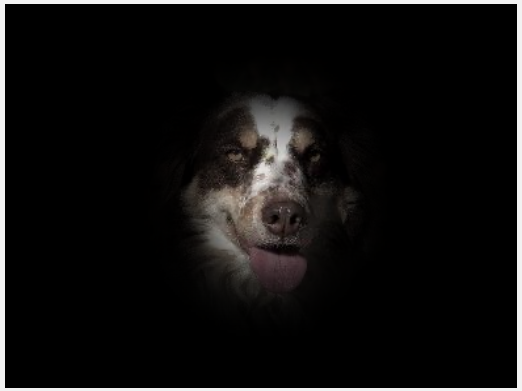
Pipeline

	Therapeutic Category	Product Formulation	Indication	Development Stage				Anticipated Near-Term Milestones
				Pre-clinical	Phase 1	Phase 2	Phase 3	
Anterior Segment	Ocular Surface Disease	KIO-101 Eye Drop	Dry Eye Disease					• Data from PoC Ph1/2a trial in Q4 2021
Anterior Segment	Ocular Wound Healing	KIO-201 Eye Drop	PRK Surgical Recovery					• PIND in Q1 2022 • Ph3b registration trial in Q3 2022
Posterior Segment	Inherited Retinal Disease	KIO-301 IVT	Mutation Agnostic Retinitis Pigmentosa					• Ph1b POC study in Q3 2022 • PIND in Q2 2022
Systemic	Autoimmune	KIO-102 Oral	TBD					• IND enabling studies in Q4 2021 • Seeking strategic partnerships

KIO-301

Small Molecule Photoswitch for Retinal Reanimation

Retinitis Pigmentosa (RP) Disease Overview



Prevalence

- 1:3,000-1:5,000 (Orphan Disease)

Etiology

- 50+ genetically distinct subtypes from 150+ mutations
- Inherited disease

Clinical Presentation

- Night blindness, reduced visual field range and eventual loss of central vision
- Visual acuity declines

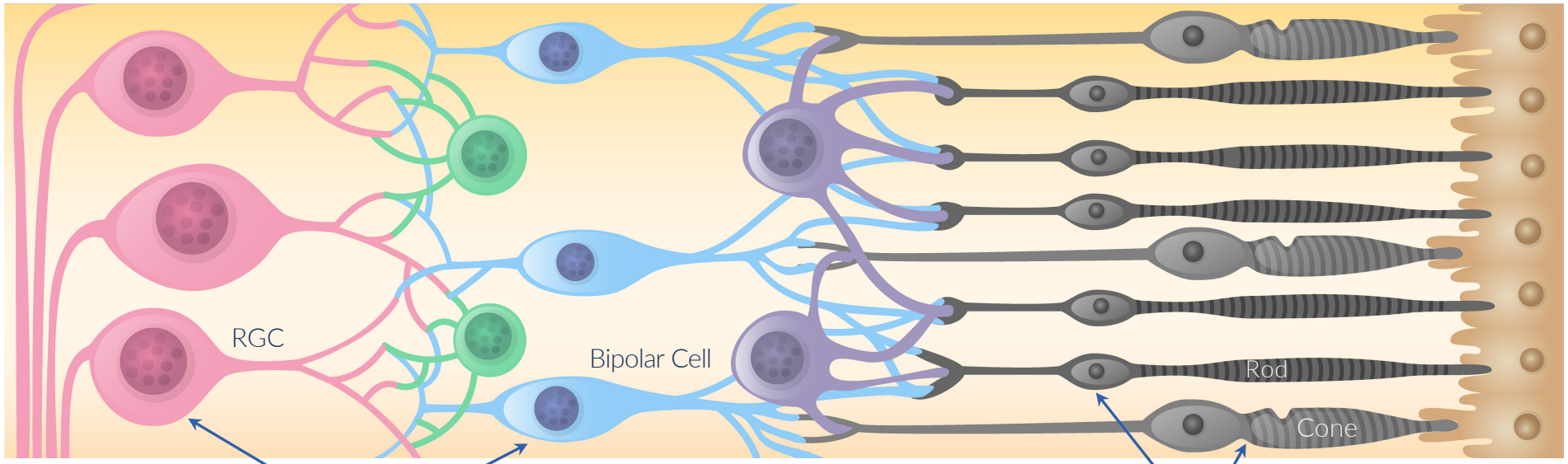
Diagnosis

- Retinal exam (black bone-spicule pigmentation)
- ERG provides definitive diagnosis
- Genetic testing

KIO-301 is mutation agnostic.

American Academy of Ophthalmology

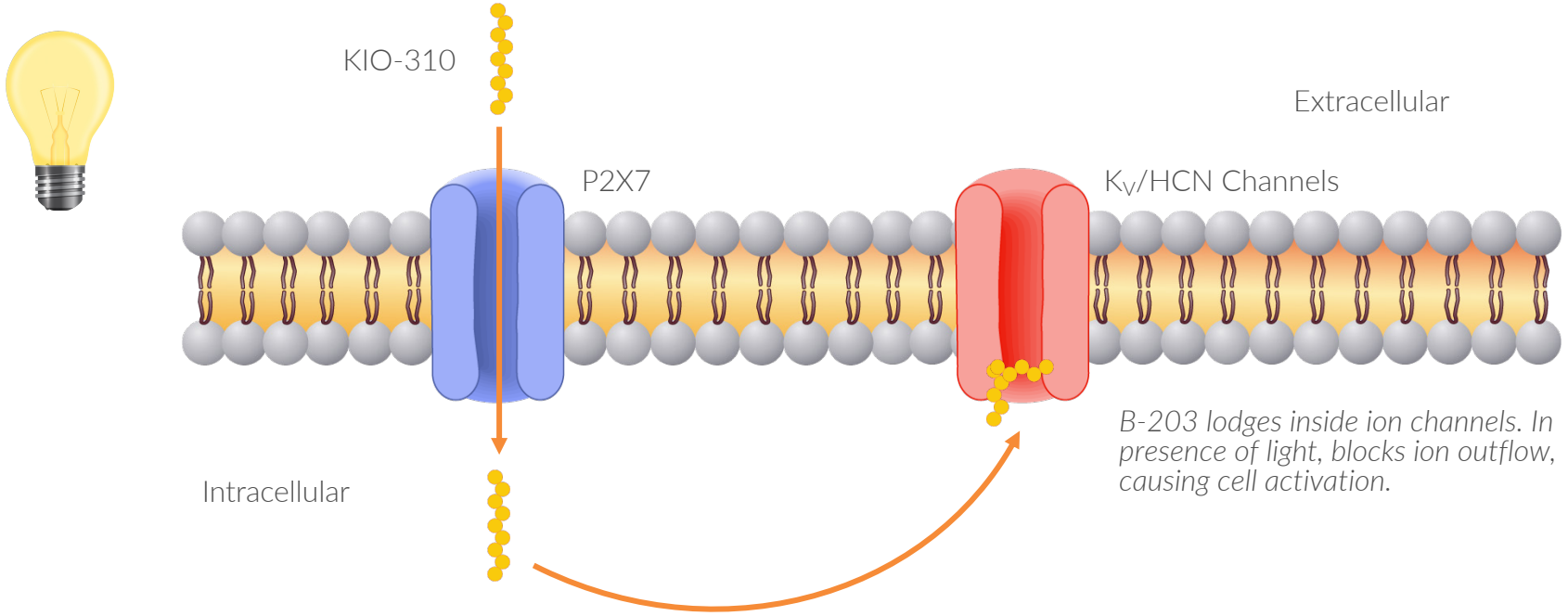
RP – How Retinal Degeneration Occurs

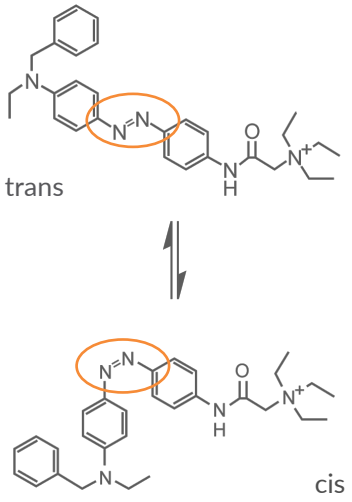


- Normal human retina has about 120 million rods (black & white, night vision, movement) and 6 million cones (color)
- Photoreceptors die (rods first, then cones), unable to activate Bipolar cells and Retinal Ganglion Cells (RGCs)
- Bipolar cells and RGCs remain intact and retain ability to send signals to the brain

KIO-301 Turns RGCs “ON” in the Presence of Light

1. In RP, photoreceptors are no longer viable and therefore their companion “signal” cells (RGCs) are not capable of being activated or set to “OFF”
2. KIO-301 preferentially enters these “OFF” RGCs and turns them “ON” in the presence of light*

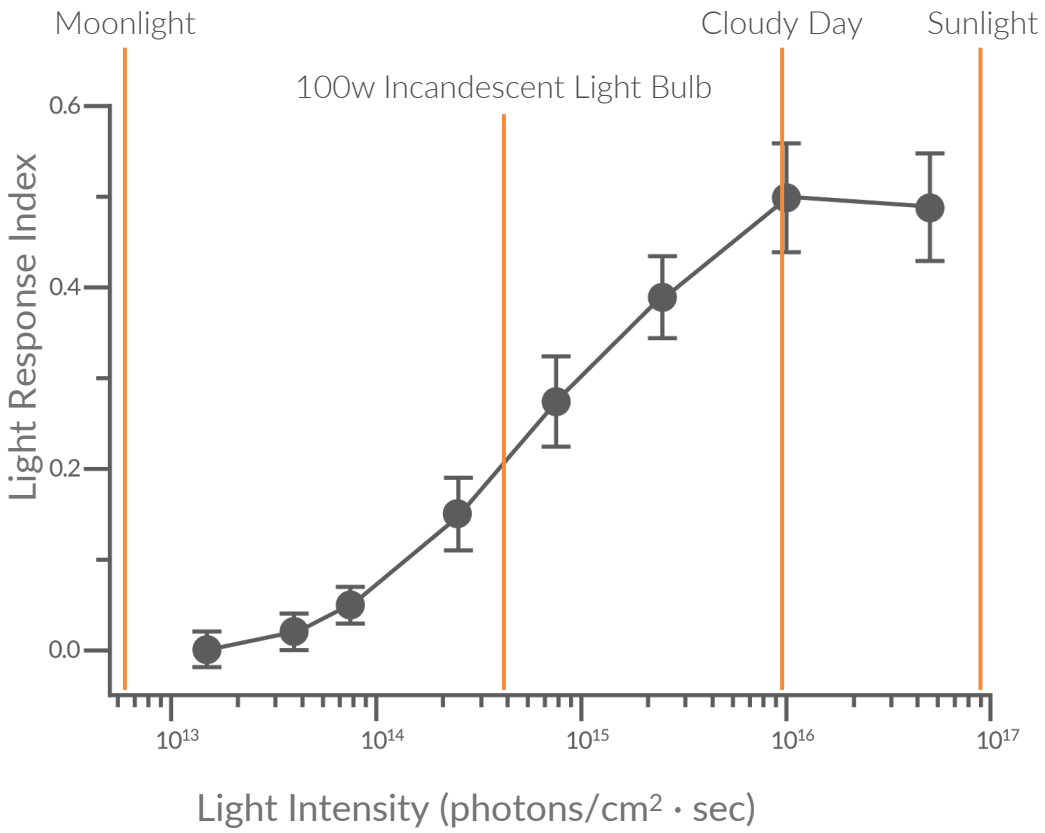


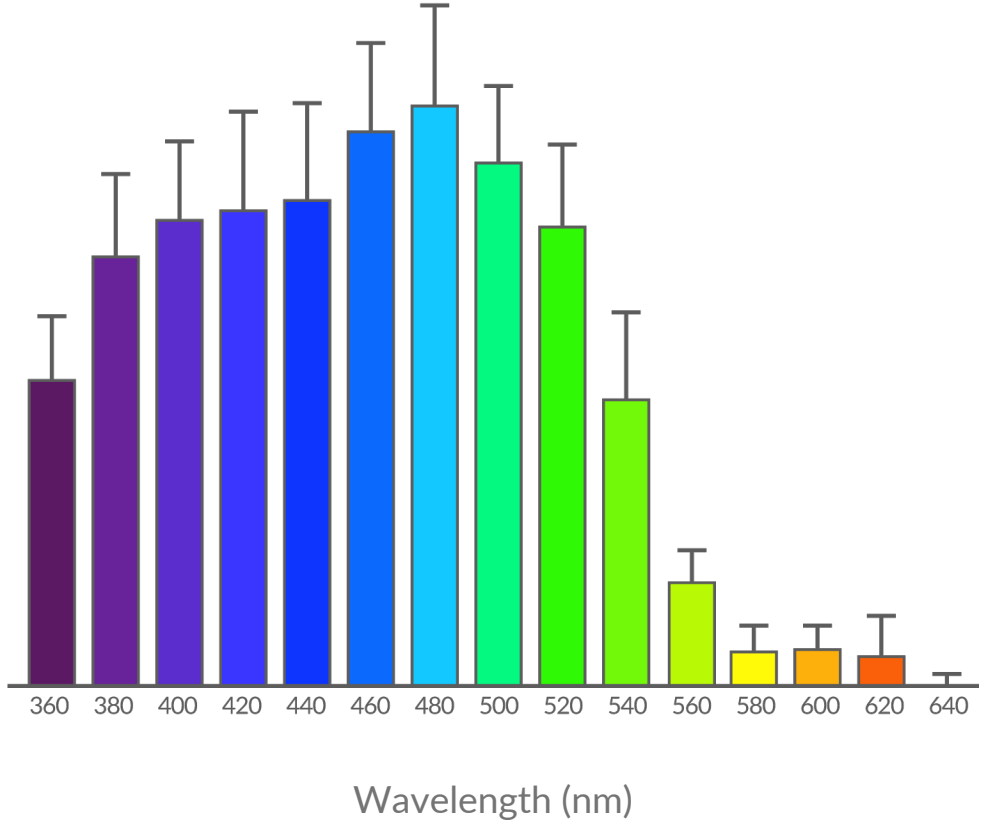


* Visual light causes shape change of KIO-301 (trans ⟶ cis), blocking the movement of positively charged ions out of the cell through the K_V/HCN channels. This build up of charged ions in the cell triggers activation (phototransduction signaling) to the brain.

Neuron. 92, 100-113 (2016)

KIO-301: Light Intensity and Wavelength

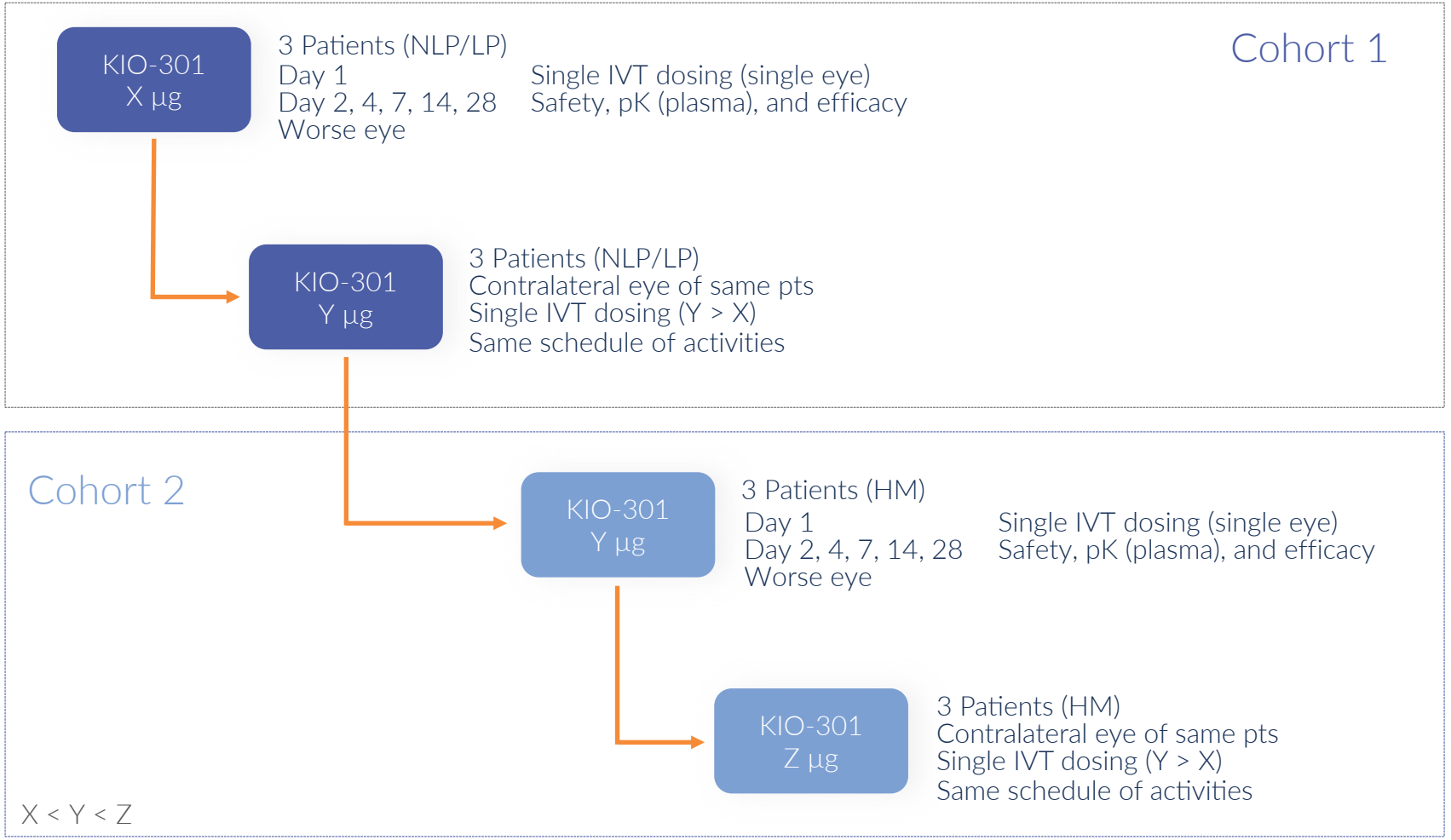




Sci. Rep. 7, 45487 (2017), Banghart, Trauner et al (2008)

KIO-301: Phase 1b Study Design

Open Label, Single Ascending Dose Trial – Royal Adelaide Hospital, Australia



Investigator led safety assessment along and between cohorts

KIO-101

Potential 1st in Class Treatment for Dry Eye Disease

Dry Eye Overview

A **chronic, multifactorial disease** of the ocular surface characterized by a **loss of homeostasis of the tear film**

- Inflammation is the common denominator of pathogenesis causing **pain, irritation, light sensitivity,** and more

Substantial prevalence worldwide

- 9 million people in United States have the moderate/severe form of DED

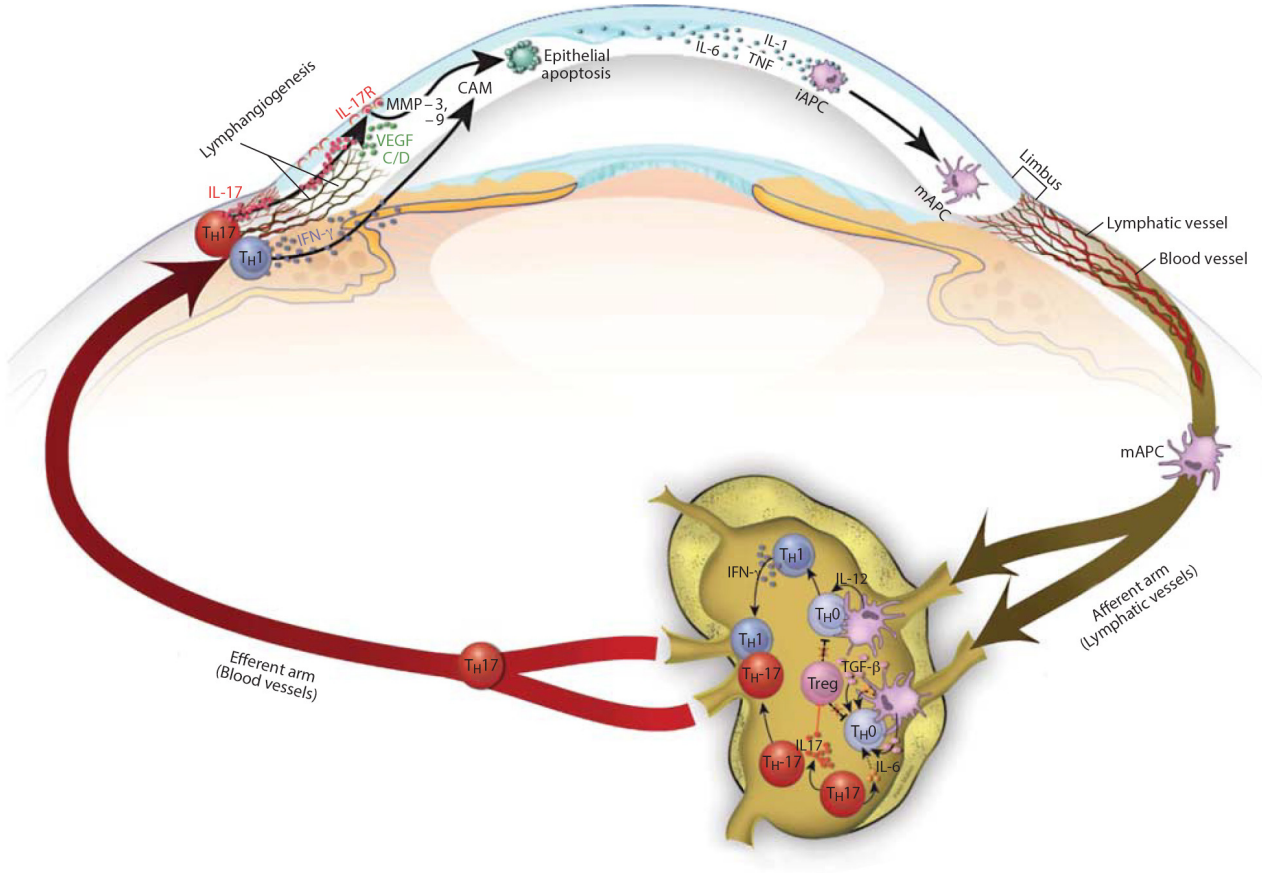
No single treatment works for all patients: only ~18% of patients are actively being treated

- Restasis® 2020 US sales – $1.3 billion
- Xiidra® 2020 US sales – $376M
- Steroids/other

Global Data's Dry Eye Syndrome Global Drug Forecast and Market Analysis to 2026: Published June 2018, based on Q4 2020 run rate (Abbvie) 2020 sales reported by Novartis, Symphony Health – OIS presentation 2020

Dry Eye Disease is Mediated by T Cells

KIO-101 acts upstream to inhibit proliferation of T helper cells (Th1 and Th17) in lymph node and on-site to suppress pro-inflammatory cytokine release



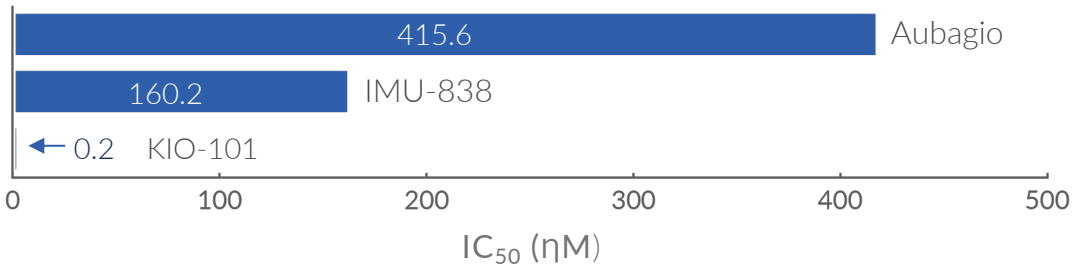
Arch Ophthalmol. 2012 Jan;130(1):90-100

DHODH Inhibitors

Validated Drug Class for Autoimmune Diseases

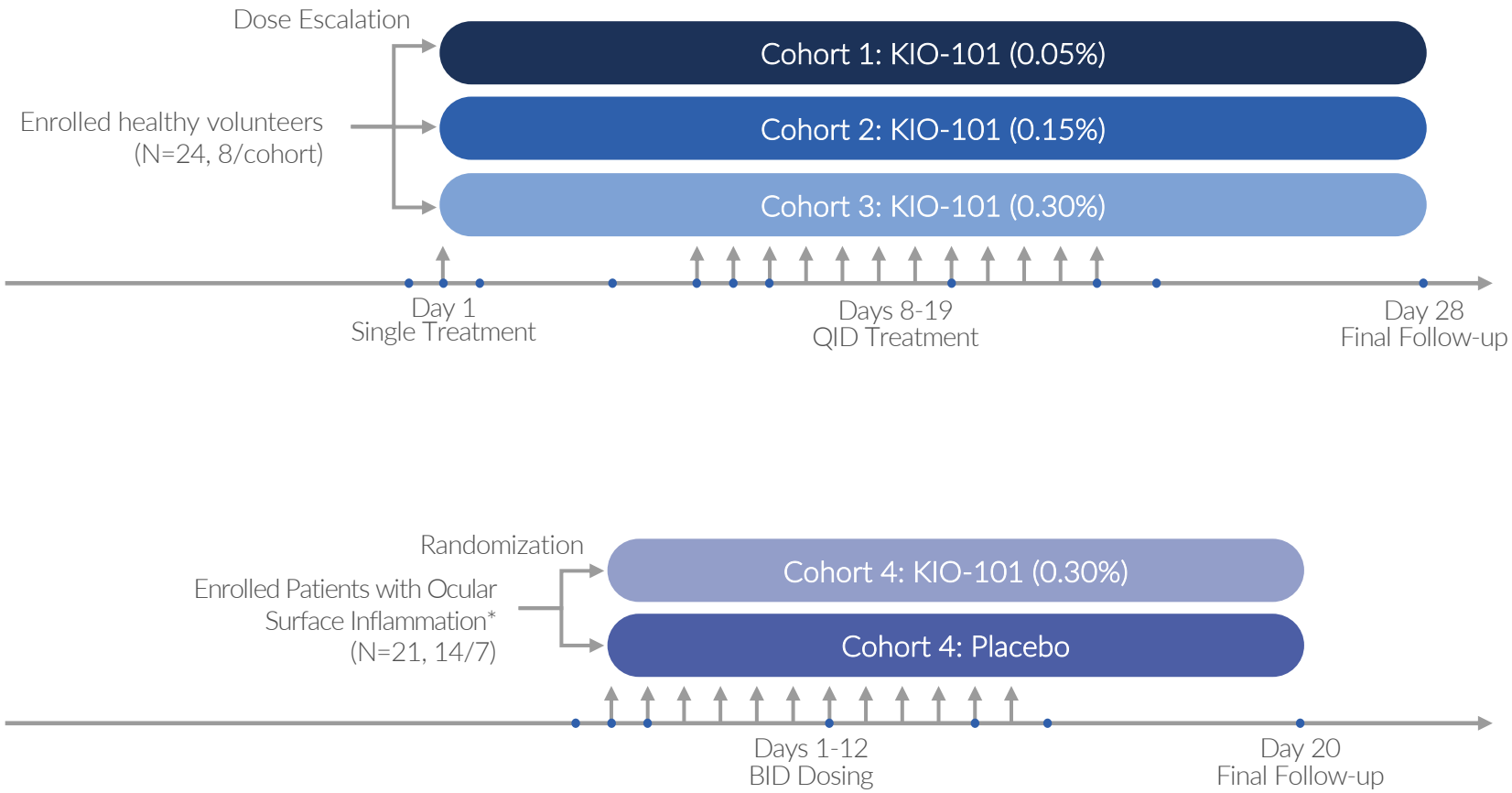
Company	Drug	Status*	Market / Revenue
Sanofi	Arava (leflunomide) Aubagio (teriflunomide)	On market for RA On market for MS	~$2.5B annual revenue Low selectivity and potency results in off-target side effects ▪ Safety concerns of severe liver injury and other adverse events ▪ Black box added regarding the risk of severe liver injury
PTC Therapeutics	PTC299	Ph1b AML Ph2/3 COVID-19	
Immunic	IMU-838	Ph2/3 UC, MS, CD	
ASLAN	ASLAN003	Ph2 autoimmune	
Clear Creek Bio	Brequinar	Ph2 AML Ph2 COVID-19	
Kiora Pharmaceuticals	KIO-101	Ph2 Dry Eye Preclin autoimmune	

*As of April 2021



KIO-101 overcomes safety concerns with greater specificity and best in class potency

KIO-101: Exploratory Phase 1/2a Ocular Surface Inflammation Trial



Dosing Days
Follow-Up Days

Key Inclusion Criteria

- Ocular surface inflammation defined by OSDI of at least 22
- Conjunctival hyperemia ≤ Grade 2 on the Efron Scale

1° & 2° Outcomes

Safety ▪ pK ▪ Exploratory Efficacy Including OSDI, Conjunctival Hyperemia, Corneal Staining, and Tear Break-Up Time

KIO-201

Accelerating Ocular Surface Wound Healing

Ocular Surface Diseases

Wounds: Surgery

9%

~5 million US patients

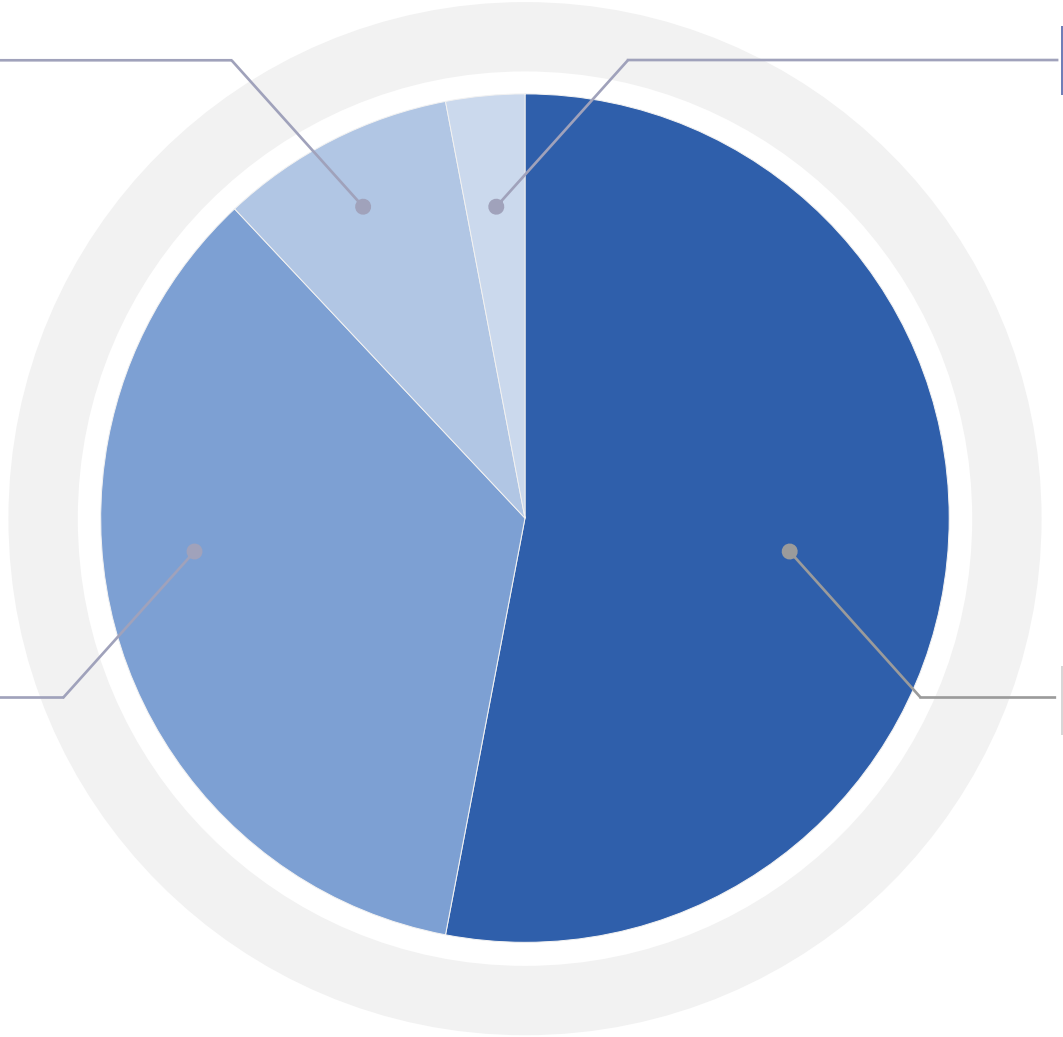
Refractive surgeries (e.g., PRK)
Cataracts
Collagen cross-linking

Wounds: Trauma

3%

~2 million US patients

Injuries/abrasions
Chemical burns
Difficult to heal PED/ulcers



Epitheliopathies: Dry Eye

35%

~18 million US patients

Episodic/mild
Moderate
Severe

Epitheliopathies: Non-Dry Eye

53%

~28 million US patients

Contact lens wear
Ocular irritants
Glaucoma medications

American Academy of Ophthalmology

Refractive Surgery Overview

PRK

- PRK is a surgical correction of refractive errors for patients who are not suitable candidates for LASIK due to:
  - Inadequate corneal thickness
  - Larger pupil size
  - Dry eye
  - Anterior basement membrane disease
- PRK involves controlled mechanical removal of corneal epithelium with subsequent lasering of stroma

The Unmet Need

- While PRK yields superior visual results, complications include:
  - Post-operative pain
  - Risk of infection
  - Corneal haze
  - Decreased contrast sensitivity
  - Slower visual recovery
- Standard-of-care is a Bandage Contact Lens (BCL) which can result in subsequent erosion of epithelium

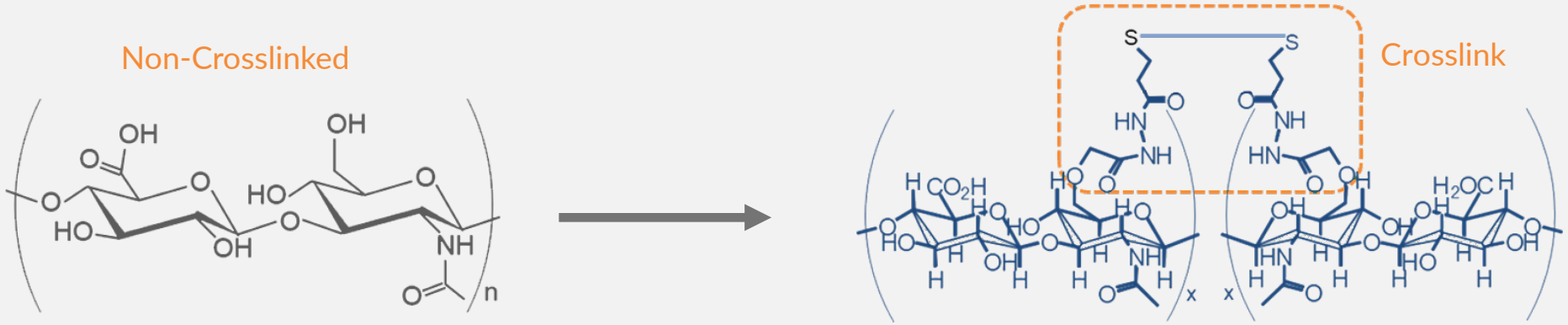
The Opportunity

- Enabling the epithelium to heal faster may mitigate peri-operative complications and improve long-term visual outcomes
- The PRK population is ideal for clinical development:
  - Large population (~850,000 LASIK/PRK surgeries per year in the US)*
  - Large wound (9mm), same size for all patients and known time zero
  - Healthy eyes required and time to healing well-established
- Preferred laser vision correction procedure of the US Military

*American Academy of Ophthalmology and Ocular Surgery News: April 10, 2019

KIO-201

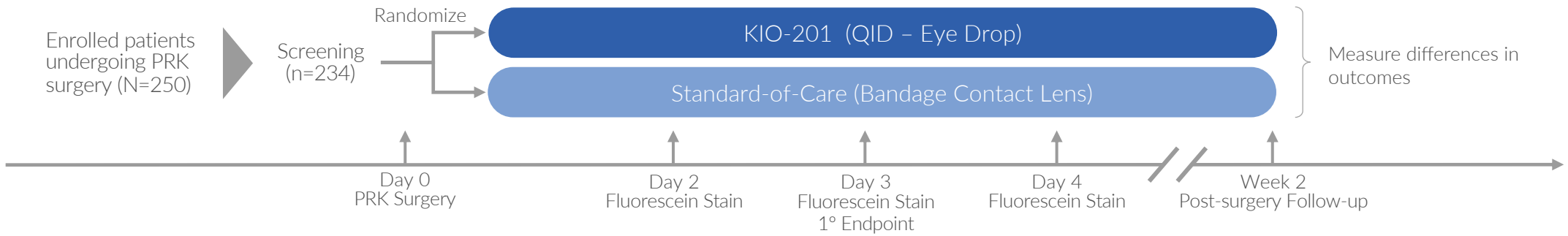
- KIO-201 is based on a modified form of the natural polymer hyaluronic acid (HA)
- HA is a material with a high viscosity that promotes wound healing by enabling enhanced cell migration
- 5 clinical trials completed (3 PRK surgical recovery and 2 dry eye)
  - > Approximately 400 eyes have been treated with KIO-201
  - > Strong safety and efficacy profile



Crosslinking Creates Unique Attributes Ideal for Ocular Surface

- Improved product stability
- Longer retention on the ocular surface over non-crosslinked HA (2 hours vs minutes)
- Able to achieve concentrations up to 7.5x current products
- Decreased viscosity during blinking = no blurred vision

PRK Study Design



Study Design

- Two-arm, randomized, positive-controlled, masked via reading center

Outcome Measures

- Primary endpoint: Complete corneal re-epithelialization on Day 3 (% of eyes w/ fully closed wound and remain closed)
- Key secondary endpoint: Mean wound size (days 2, 3, 4)

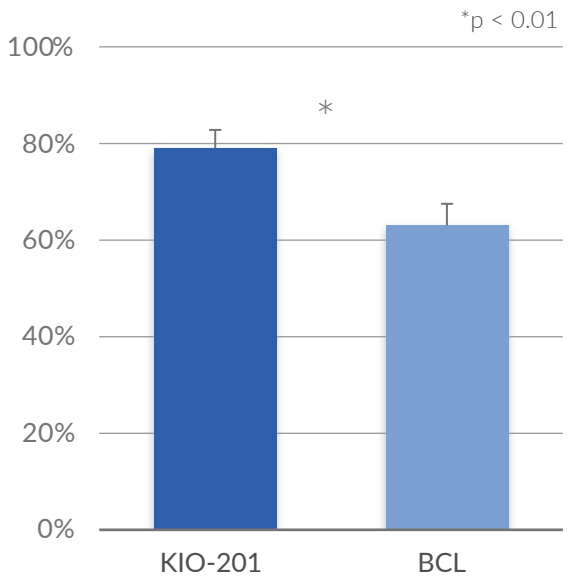
Enrollment

- 250 patients enrolled (9 US sites)
- 234 qualified patients randomized to KIO-201 or BCL group post-surgery (16 screen failures)

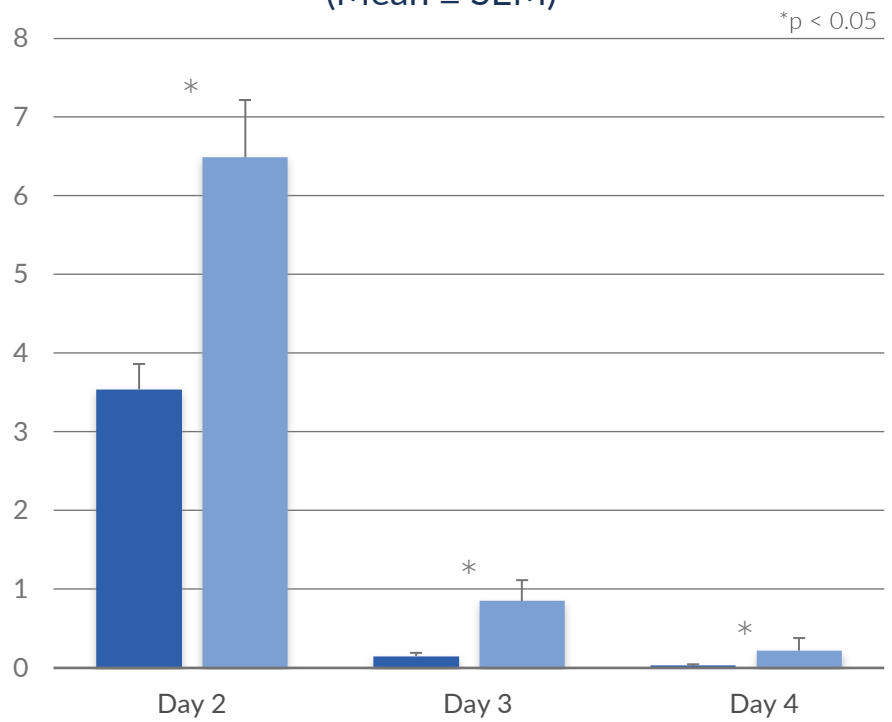
ClinicalTrials.gov Identifier: NCT03938883

KIO-201 Demonstrated Superiority versus BCL

Percent of Patients with Complete Re-Epithelialization Day 3 (Mean ± SEM)



Mean Wound Size (mm^2) (Mean ± SEM)



Recurrent Erosion

- Only 1 (0.9%) study eye in the KIO-201 group had recurrent erosion
- 4 (3.5%) study eyes in the Bandage Contact Lens (BCL) group had recurrent erosion

Corporate Overview

Executive Team

Brian M Strem, PhD
President & CEO

Sarah Romano, CPA
Chief Financial Officer

Eric J Daniels, MD, MBA
Chief Development Officer

Brenda Mann, PhD
VP – Research

Stefan Sperl, PhD
EVP – CMC & Operations

Angela Dentiste, MBA
VP – Clinical Operations

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Paul Chaney
Lead Independent Director

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Aron Shapiro

Praveen Tyle

Brian M Strem, PhD
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