



Kiora Pharmaceuticals, Inc.

NASDAQ: KPRX

————— Q3 2023 | Corporate Overview

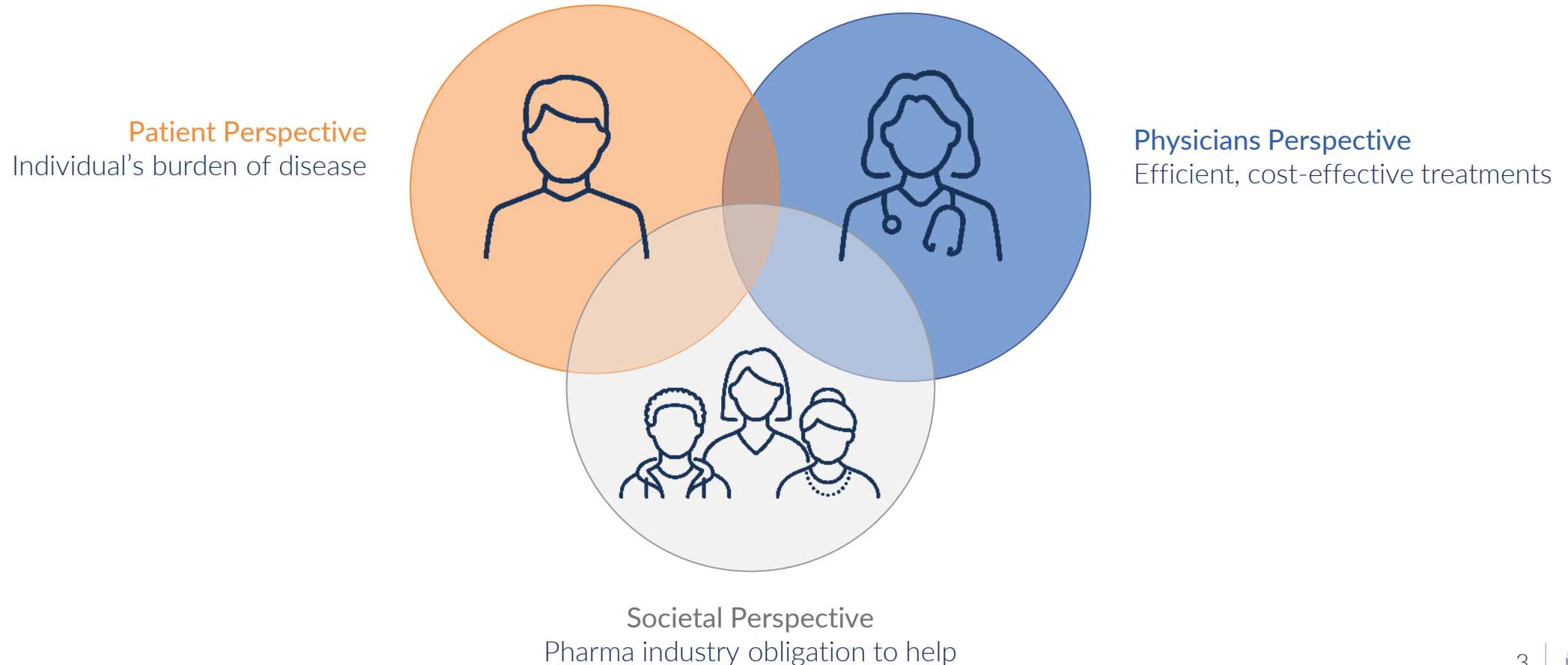


Forward Looking Statements

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 development-stage products, including KIO-301 and KIO-104, as well as the success thereof, with such approvals or success may not be obtained or achieved on a timely basis or at all, the potential ability of KIO-301 to restore vision in patients with RP, the expecting timing of enrollment, dosing and topline results for the ABACUS study, the ability to develop KIO-301 for Choroideremia and Stargardt's Disease and KIO-104 for posterior non-infectious uveitis, the ability to utilize strategic relationships to develop certain product candidates, Kiora's ability to draw on its equity line of credit, and Kiora's ability to achieve the specific milestones described herein. 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, the ability to conduct clinical trials on a timely basis, the ability to obtain any required regulatory approvals, 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 23, 2023, 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.

Sharpened Focus on Orphan Retinal Diseases

Kiora is developing retinal therapeutics to improve sight in patients with severe vision loss due to inherited or age-related diseases

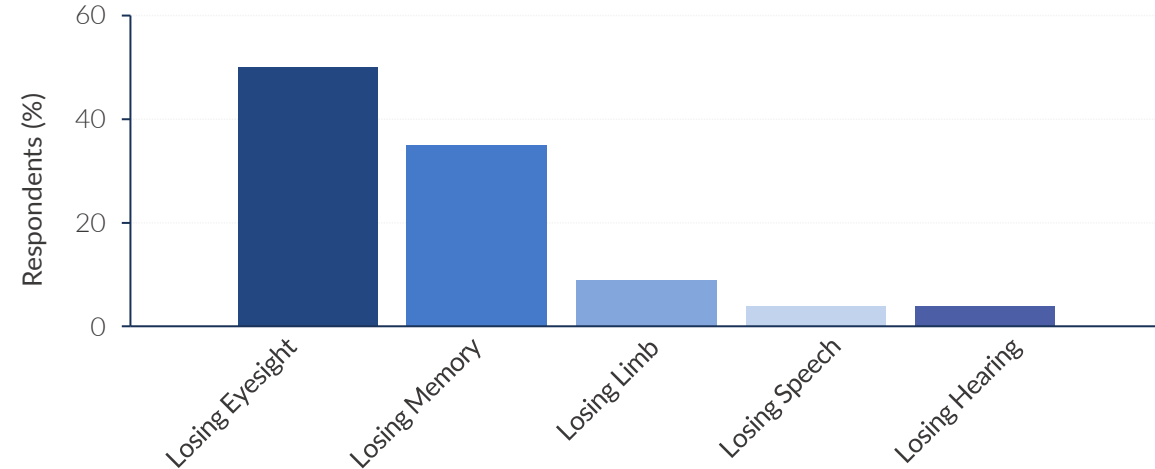


Why Retinal Diseases?

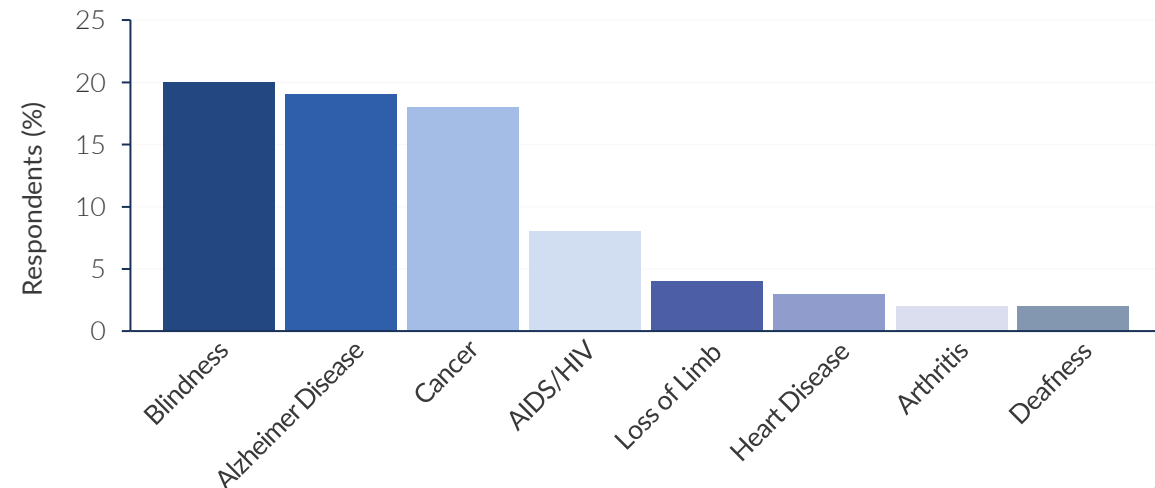
“...the last light sensations faded and the dark discs had finally overwhelmed me. I had fought them bravely, as it seemed to me, for thirty-six years, but to no avail. It was then I began to sink into the deep ocean, and finally learn how to touch the rock on the far side of despair.”

- John M. Hull, *Touching the Rock*

Conditions with Greatest Effect on Day-to-Day Life (n=2044)



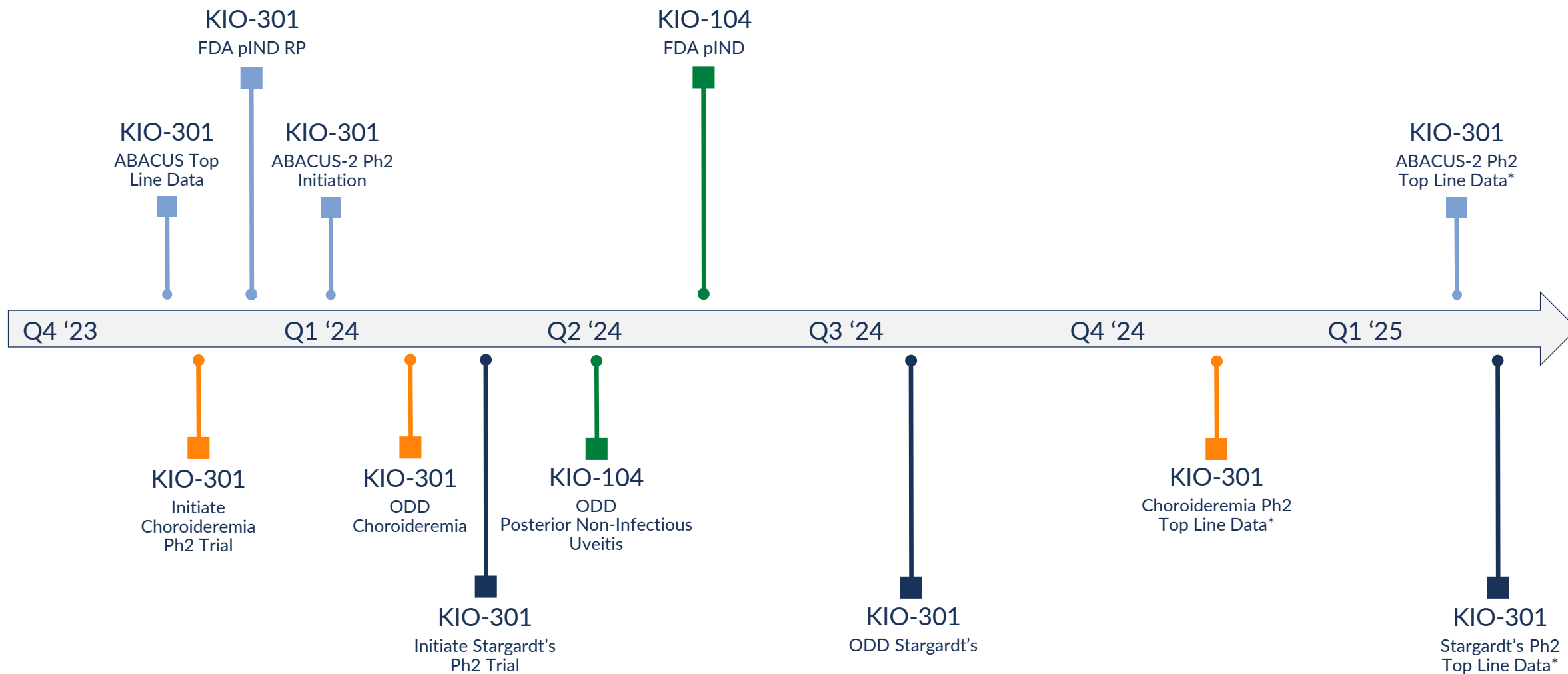
Rankings of Worst Conditions (n=2044)



Pipeline

	Product Route of Delivery	Indication	Development Stage			
			Pre-clinical	Phase 1	Phase 2	Phase 3
Retinal Disease Programs	KIO-301 Intravitreal	Retinitis Pigmentosa (Mutation Agnostic)	Granted Orphan Drug Designation (USA) – Mar 2022			
		Choroideremia				
		Stargardt's Disease				
	KIO-104 Intravitreal	Posterior Non-Infectious Uveitis	Granted Orphan Drug Designation (EU) – May 2015			
Seeking Strategic Partnerships (Legacy Assets)	KIO-101 Eye Drop	Ocular Presentation of Rheumatoid Arthritis+				
	KIO-201 Eye Drop	Persistent Corneal Epithelial Defects/ Neurotrophic Keratitis				
		Corneal Surgical Wound Healing				

Upcoming Clinical/Regulatory Milestones



* Excludes open label extension

RP – Retinitis Pigmentosa, ODD – Orphan Drug Designation

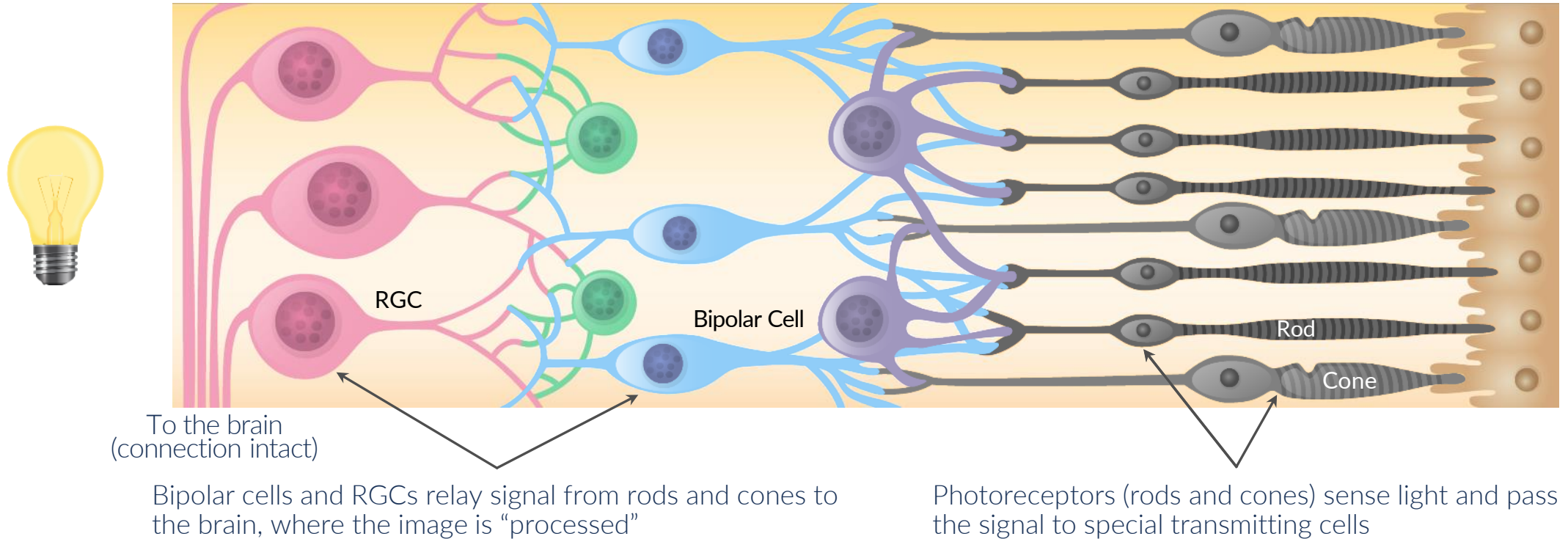


KIO-301

Small Molecule Targeting Vision Restoration

Retinitis Pigmentosa, Choroideremia, Stargardt's Disease

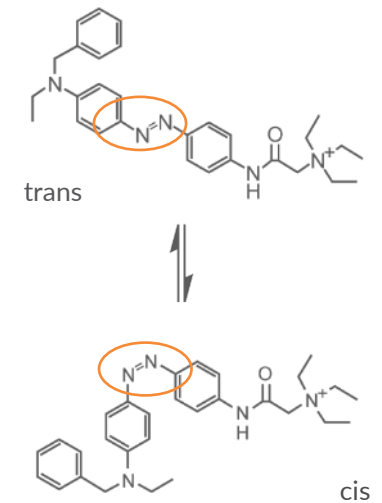
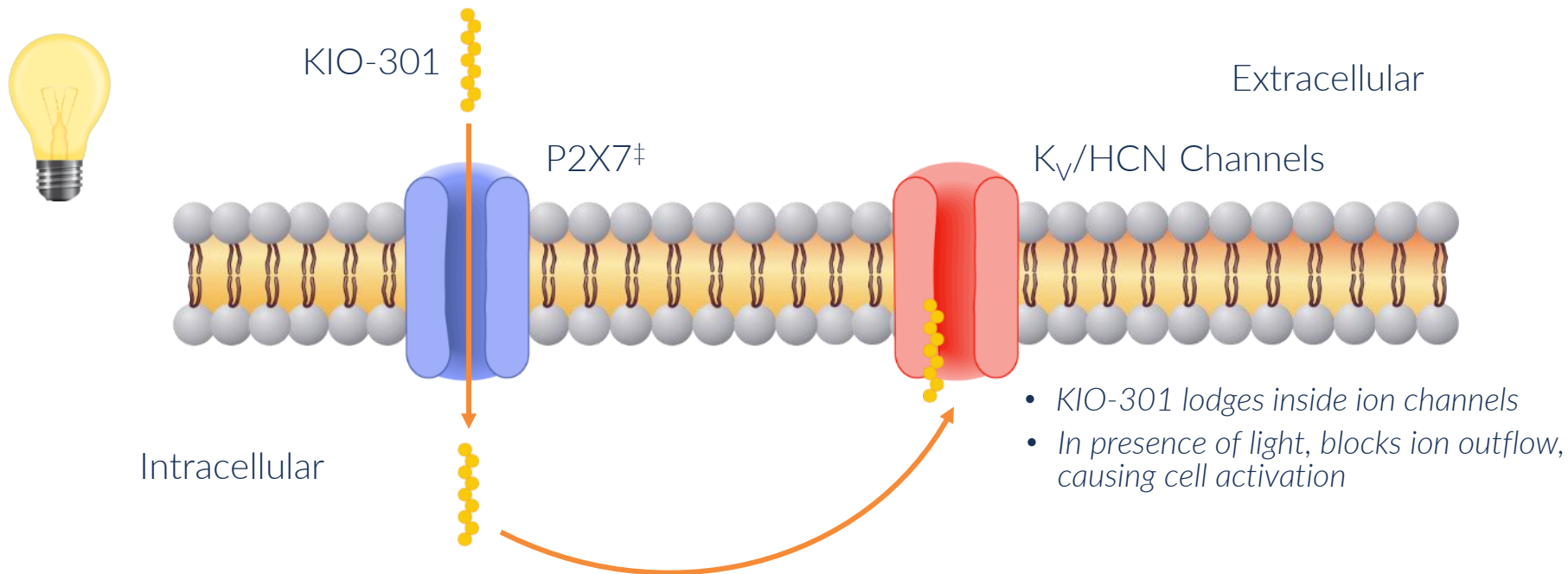
Downstream Neurons Remain Viable



- Many Inherited Retinal Diseases, including Retinitis Pigmentosa (RP), result in death of photoreceptors
- Bipolar Cells and Retinal Ganglion Cells (RGCs) remain intact and retain ability to send signals to the brain

KIO-301 (MOA): Turns RGCs “ON” in the Presence of Light

- When photoreceptors die → downstream neurons (RGCs) are not capable of being activated
- KIO-301 preferentially enters these RGCs and turns them “ON” in the presence of light*



‡ P2X7 is solely expressed on RGCs and amacrine cells in the retina

* Visual light causes reversible isomeric shift, blocking ion efflux through K_v/HCN channels

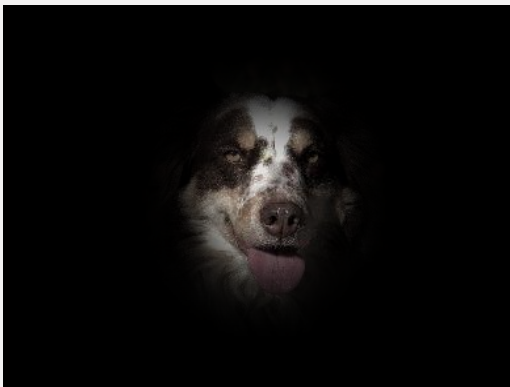
Retinitis Pigmentosa

A Disease with No Available Treatments

Normal Vision



Vision Declines over Time



Clinical Presentation

- Night blindness, reduced visual field range and eventual loss of central vision
- Visual acuity declines
- 50% of patients are not qualified to drive by age 37 and legally blind by 55

Etiology

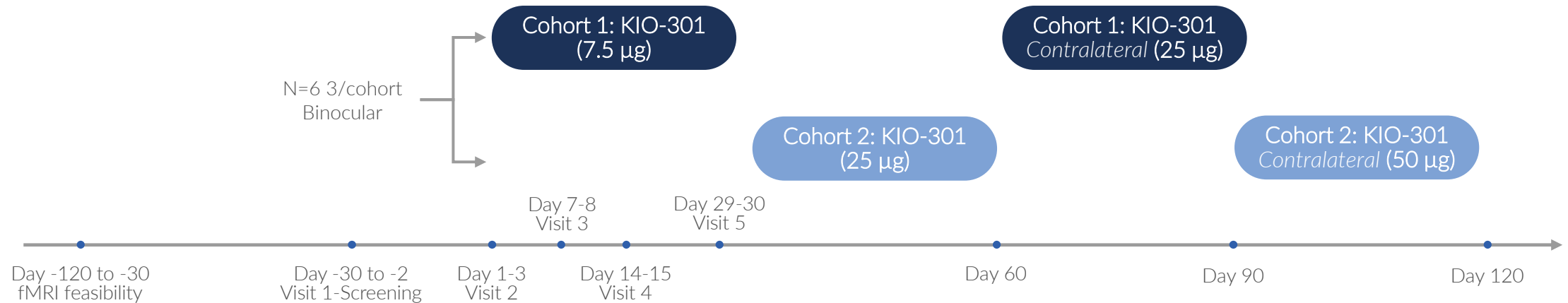
- 50+ genetically distinct subtypes from 150+ mutations
- Inherited disease

Market Opportunity

- ~100k patients in US (Provider: Retina Specialists [~3k])
- Estimated total cost to US healthcare system in 2019: \$3.7B

KIO-301-1101: Phase 1b Study Design (ABACUS)

Open Label, Single Ascending Dose Trial – 2 Sites (Australia)



Study Design

- Two cohorts, non-randomized, open-label, single IVT injection per eye
- Cohort 1 – NLP/BLP patients; Cohort 2 – HM/CF patients

Endpoints

- Primary – AEs, PK & labs
- Secondary – Assessment days (shown only for Cohort 1 above) is repeated for each cohort per eye; intensity & contrast assessment, kinetic perimetry, functional MRI, etc.

Review

- Safety review conducted by Investigators between after sentinel subject

ABACUS Completed Subjects – Responder Matrix

Multiple positive responses improve signal fidelity and reduce chance of randomness

	Subject ID	Clinical Dx	MLOM	Goldmann Perimetry	Intensity & Contrast	fMRI	VFQ-25	Patient Feedback
Cohort 1	1-01	BLP	+	+	+	+	+	+
	1-02	NLP	N/A	N/A	+	+	+	+
	1-04	BLP	+	+	N/A	In-process	No change	No change
Cohort 2	1-03	HM	+	+	N/A	In-process	No change	No change
	2-05	CF	+	+	N/A	+	In-process	+
	2-06	HM	+	+	N/A	In-process	In-process	+

— Patient Reported Outcomes



Pt1-02
Baseline VA: NLP



Pt2-05
Baseline VA: CF



Pt1-03
Baseline VA: HM

ABACUS

KIO-301 IVT is safe & tolerable



KIO-301 reanimates the retina in the blind



Next Steps:

Enrollment complete → full data expected in Q4 2023

Increasing enrollment, based on initial findings, with 3 additional NLP subjects

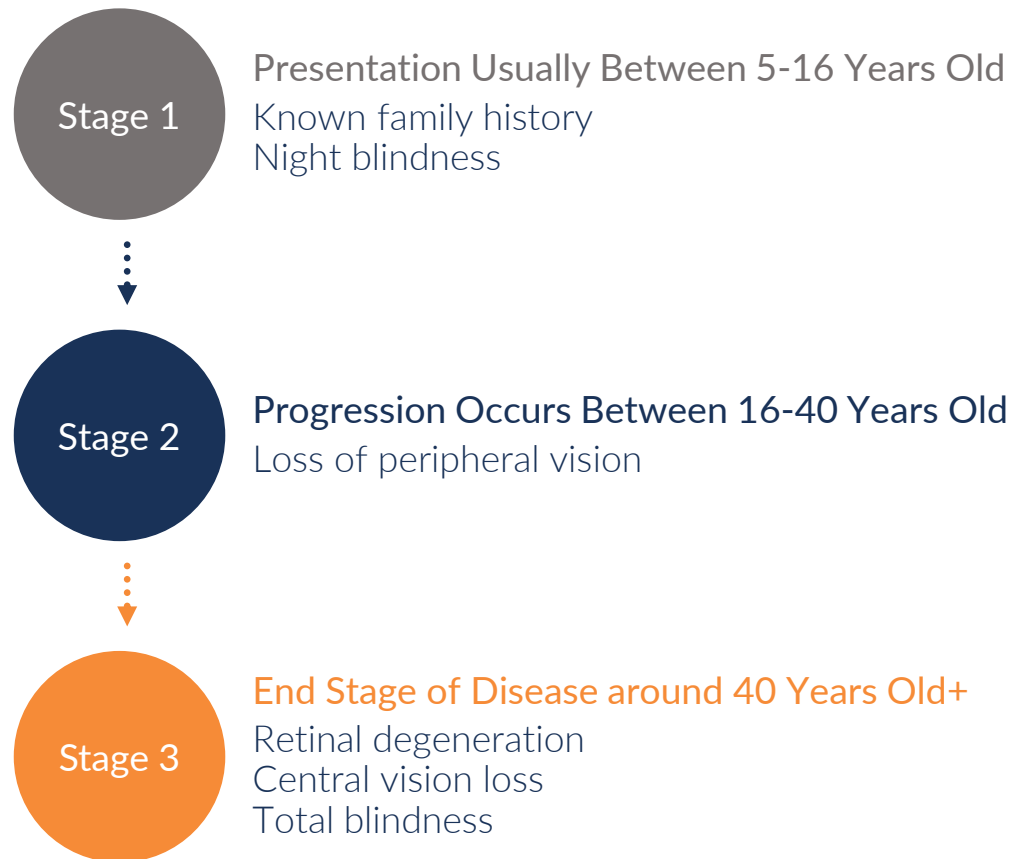
pIND with FDA planned for Q4 2023

Initiate Sham-controlled, Masked, Randomized, Multiple Dose, Multi-Center Phase 2 Trial in Q1 2024

Expand into other IRDs with similar pathology

Choroideremia: Inherited Disease that Leads to Blindness

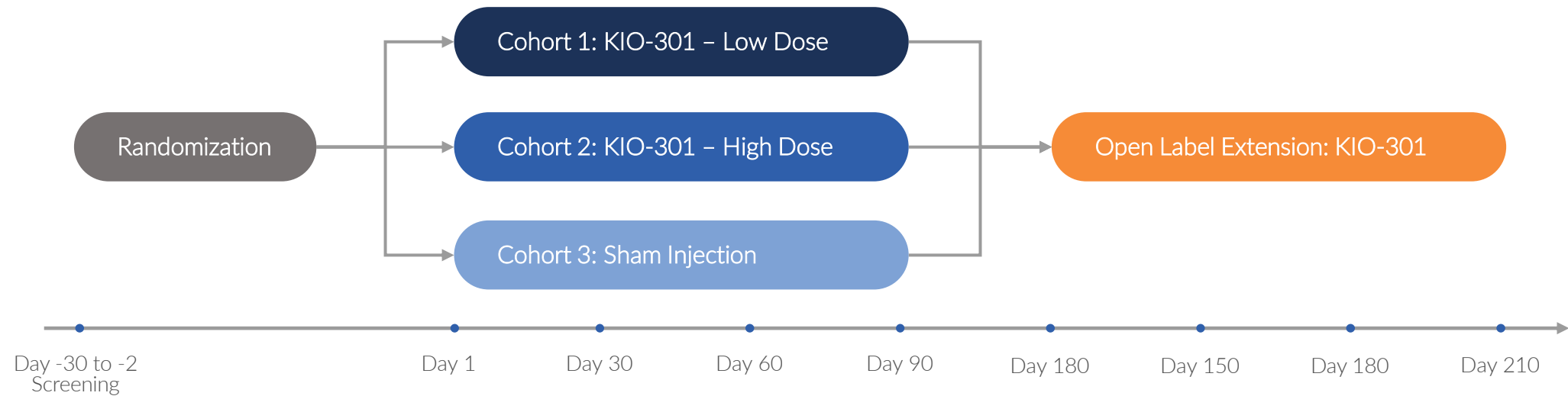
No Approved Therapeutics and Only ONE Active Therapeutic Clinical Trial*



- **Orphan Disease:** prevalence of 1:50,000, ~12,000 patients in US/EU
- **X-linked** recessive disease primarily affecting males
- **Cause:** Inherited mutation in the Choroideremia (CHM) gene encoding Rab escort protein-1 (REP1)
- **REP1** is involved in the regulation of intracellular trafficking of Rab proteins
- **Vision Loss:** Degeneration in the photoreceptors, retinal pigment epithelium (RPE), and choroid. Retinal ganglion cells remain viable.

KIO-301-2101: Phase 2 Study Design

Sham Controlled, Randomized Clinical Trial – Australia



Study Design

- Three cohorts, randomized, controlled, multiple bilateral IVT injections (days 1/30/60)

Endpoints

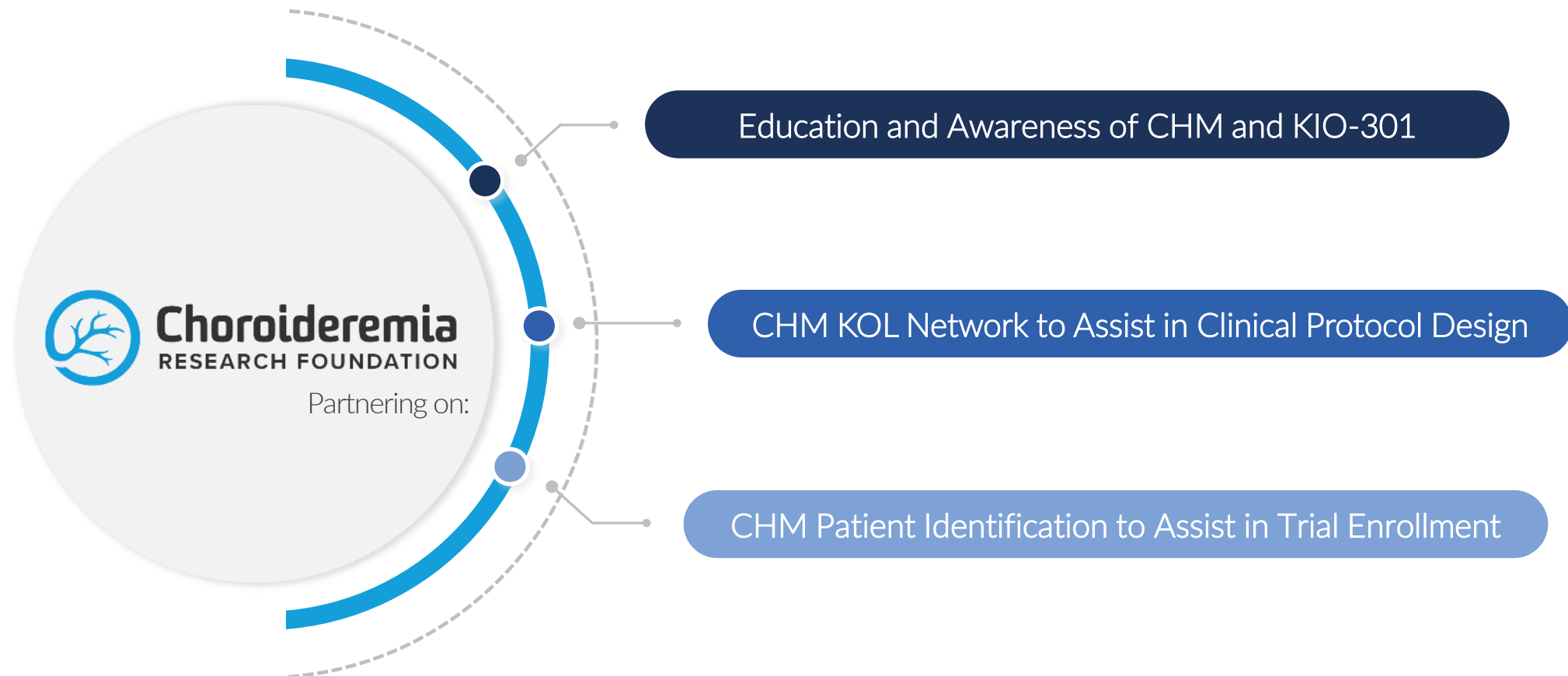
- Primary – AEs, PK & labs
- Secondary – Light perception, kinetic perimetry, functional vision, navigation, etc.

Review

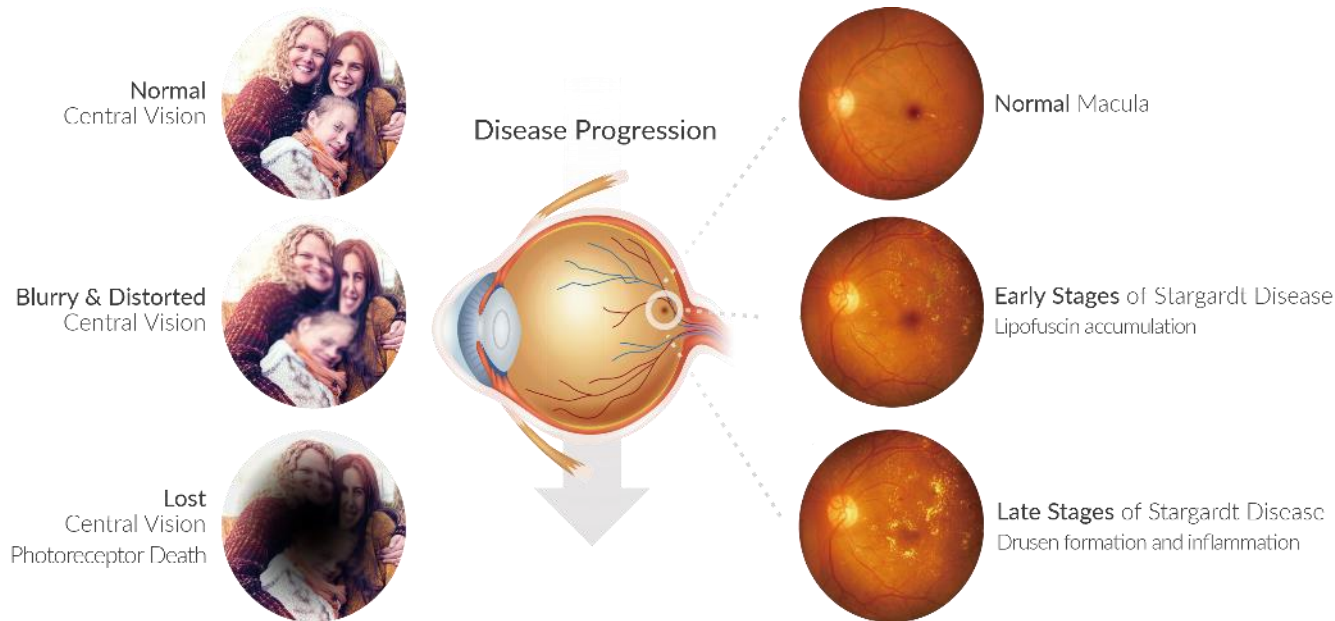
- Safety review conducted by Investigators after sentinel subject

Partnership with the Choroideremia Research Foundation

The Choroideremia Research Foundation (CRF) is the largest global not-for-profit organization focused on the search for a cure for Choroideremia (CHM).



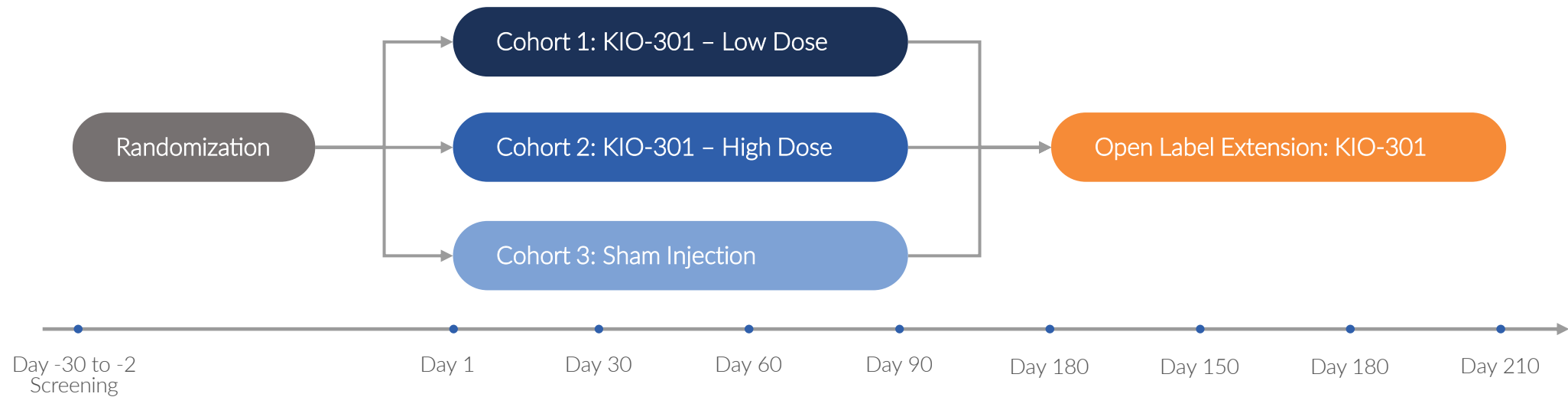
Stargardt's Disease: No Approved Therapeutics



- **Orphan Disease:** prevalence of 1:10,000
~30,000 patients in US
- **Autosomal** recessive disease inherited from parent carriers, typical onset in 2nd decade of life, vision loss in 4th-5th decade.
- **Cause:** Mutation in the ABCA4 or ELOVL4 gene
- **Accumulation** of lipofuscin plaques in the retinal pigment epithelium (RPE), leading to inflammation and cell death.
- **Vision Loss:** Degeneration of the photoreceptors and RPE. Retinal ganglion cells remain viable. Often, some peripheral vision is retained.

KIO-301-3101: Phase 2 Study Design

Sham Controlled, Randomized Clinical Trial – Australia



Study Design

- Three cohorts, randomized, controlled, multiple bilateral IVT injections (days 1, 30, 60)

Endpoints

- Primary – AEs, PK & labs
- Secondary – Light perception, kinetic perimetry, functional vision, navigation, etc.

Review

- Safety review conducted by Investigators after sentinel subject



KIO-104

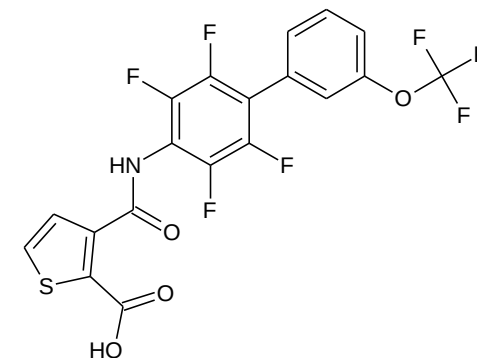
Intravitreal Small Molecule DHODH Inhibitor

Steroid Sparing Approach to Retinal Inflammation

KIO-104 Overview (DHODH Inhibitor)

KIO-104 is an intravitreal, non-steroidal, novel small molecule which mitigates:

- Metabolic activity and proliferation of T-cells
- Secretion of **IL-17, VEGF and IFN- γ**



Existing immunosuppressive agents have a fundamentally different mode of action on T-cells compared to KIO-104

- KIO-104 is best-in-class inhibitor of DHODH (lowest IC₅₀)*
- KIO-104 is first-in-class in ophthalmology

**1,000x more potent than Teriflunomide (Aubagio[®] - Sanofi)*

Non-Infectious Uveitis

Uveitis is a group of eye disorders affecting the uvea and characterized by intraocular inflammation that is often chronic, can flare up at any time, and can lead to visual impairment and vision loss.

Clinical Symptoms

- Redness and pain in the eye
- Sensitivity to light
- Blurred vision
- Dark floating spots in the vision
- Vision loss

Statistics

~**15%** of all cases of legal blindness and visual handicap in the US and EU

~**25%** of all cases of blindness globally

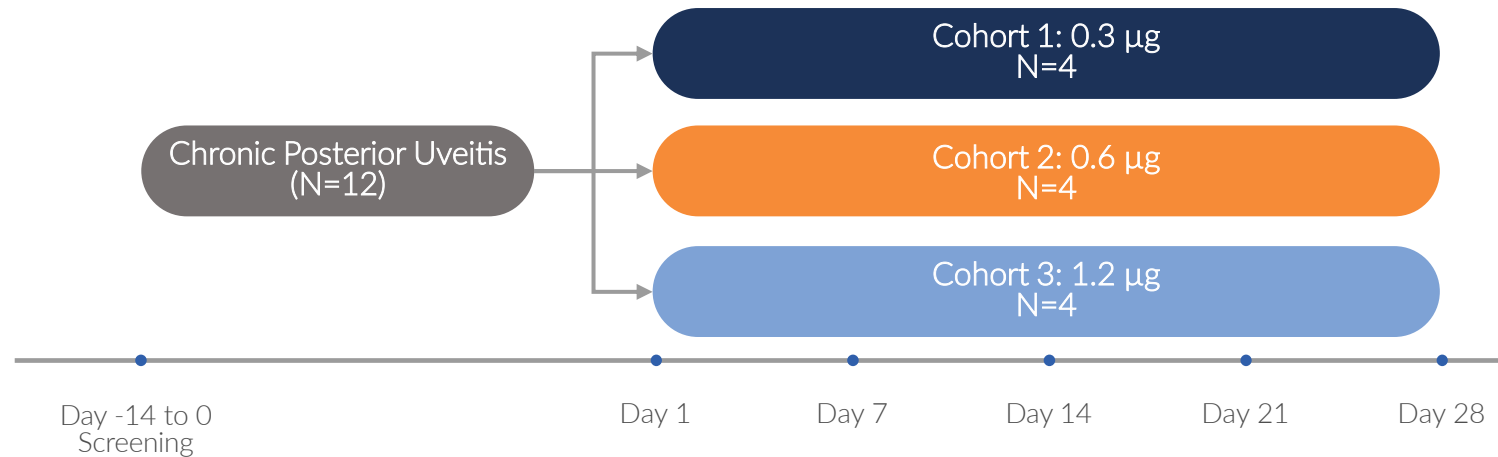
~**20%** posterior segment manifestation of uveitis

6.9% CAGR 2020-2027

20-50 years old most common age affected in the United States

Significant unmet need for a steroid sparing approach

KIO-104-1101: Phase 1 Study Design



Study Design

- Prospective, multi-center, open-label, dose ranging, single IVT injection in worse eye

Endpoints

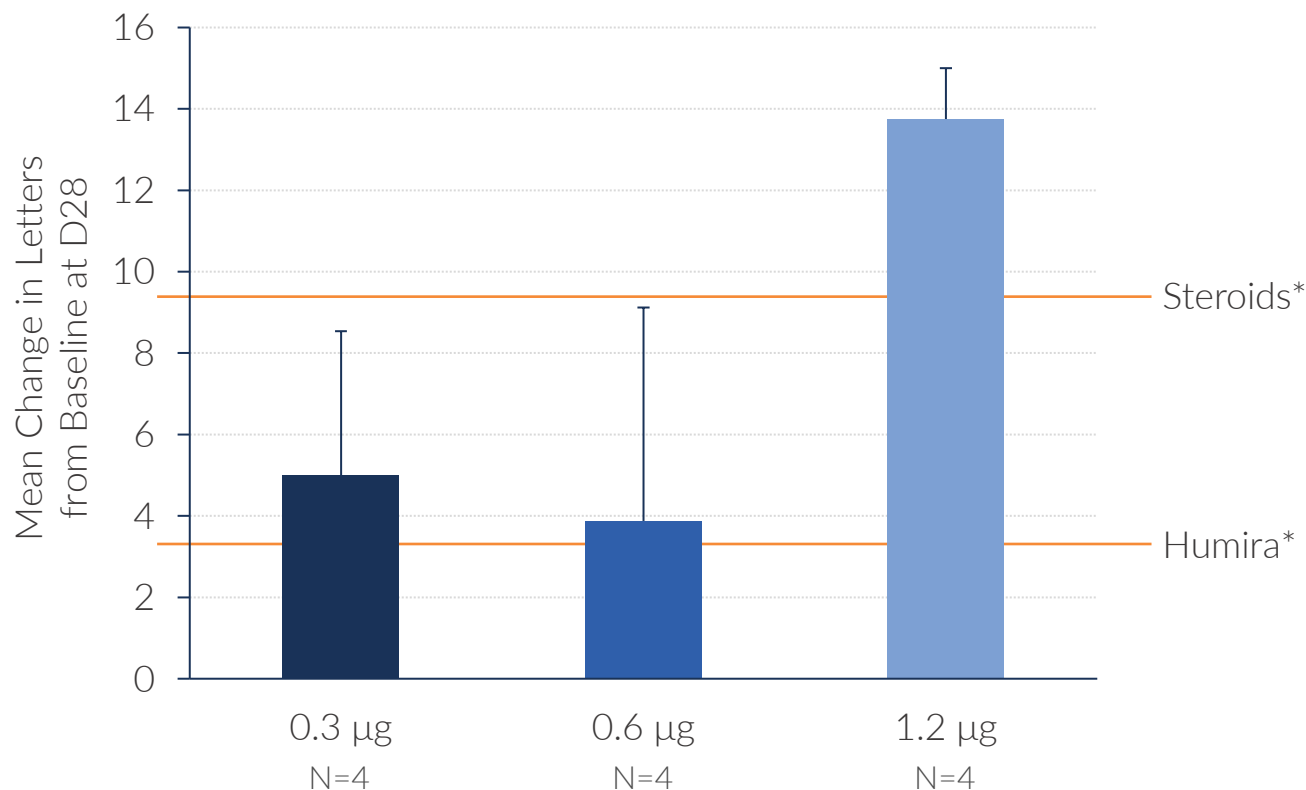
- Primary – Ocular & systemic safety, pK, safety labs
- Secondary – Visual acuity, visual field, anterior chamber inflammation, vitreous haze

Key Results

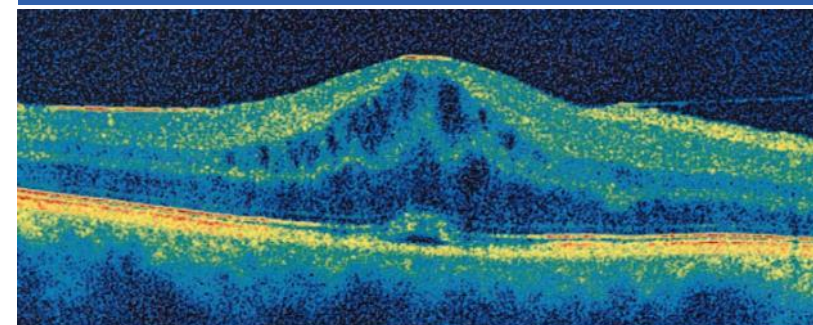
- Visual acuity improved in all patients (in all dose groups)
- Anterior chamber inflammation and vitreous haze decreased
- Evidence of reduced macular edema
- No SAEs, excellent tolerability, no peripheral blood detection (at any timepoint)

KIO-104 Improves VA and CME After Single IVT Dose

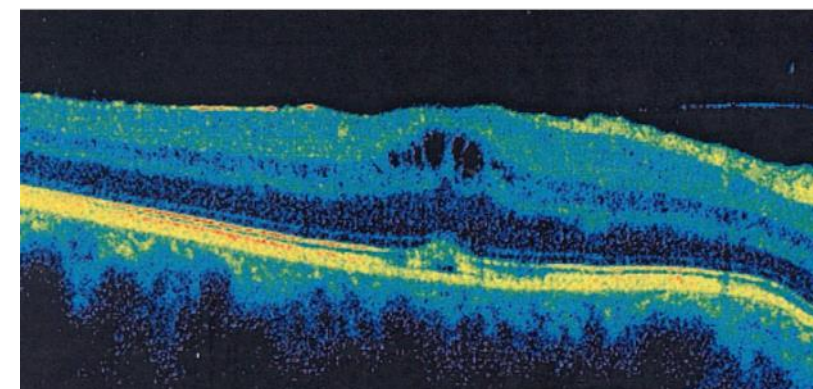
Visual Acuity



Cystoid Macular Edema[‡]



Baseline (558µm)



Day 28 (421µm)

[‡] 40% of eyes with vision threatening cystoid macular edema at baseline had clinically meaningful improvement

* Historical Controls (Yeh et al, Retina 00, 1-9, 2018; Suhler et al. Visual III, Ophthalmology 125, 7, 2018.)

IVT - Intravitreal

CORPORATE OVERVIEW

Leadership Team



Brian M. Strem, PhD
President & CEO



Eric J. Daniels, MD
Chief Development Officer



Melissa Tosca, CPA
EVP – Finance



Stefan Sperl, PhD
EVP – CMC & Operations



Board of Directors



Paul Chaney
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Ken Gayron



David Hollander, MD, MBA



Erin Parsons



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Retina
Consultants
of Texas™

Daniel Durrie, MD



Paul Karpecki, OD, FAAO



Francis Mah, MD



Victor Perez, MD



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