### 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): February 12, 2024

#### KIORA 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.)

332 Encinitas Blvd. Suite 102 Encinitas, CA 92024

(858) 224-9600

(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Che	ck the appropriate box below if the Form 8-K filing is intended to si	multaneously 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))						
Seci	urities registered pursuant to Section 12(b) of the Act:						
	Title of each class:	Trading Symbol(s)	Name of each exchange on which registered:				
	Common Stock, \$0.01 par value	KPRX	NASDAQ				
	cate by check mark whether the registrant is an emerging growth change Act of 1934 (§240.12b-2 of this chapter).	company as defined in Rule 405 of the Securiti	ies Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities				
Eme	erging growth company □						
	emerging growth company, indicate by check mark if the registrated dards provided pursuant to Section 13(a) of the Exchange Act. $\Box$	ant has elected not to use the extended trans	sition period for complying with any new or revised financial accounting				

#### Item 7.01. Regulation FD Disclosure.

Kiora 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.

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.

Exhibit Number	Title
<u>99.1</u>	Company Presentation
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

\*Schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The registrant hereby undertakes to furnish copies of any of the omitted schedules and exhibits upon request by the U.S. Securities and Exchange Commission.

#### **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.

#### KIORA PHARMACEUTICALS, INC.

By: /s/ Melissa Tosca

Melissa Tosca Executive Vice President of Finance (Principal financial and accounting officer)

Date: February 12, 2024

# Kiora Pharmaceuticals, Inc.

NASDAQ: KPRX

H1 2024 | Corporate Overview



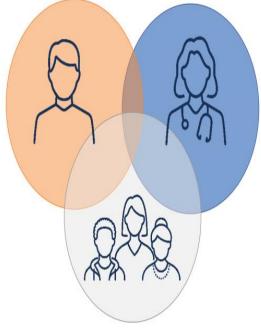
### Forward Looking Statements

Some of the statements in this presentation 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 developmentstage 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 Disease and KIO-104 for posterior non-infectious uveitis, the ability to utilize strategic relationships to develop certain product candidates, Kiora's ability to maintain the listing of our common stock on a national securities exchange, 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 presentation, 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 presentation speak only as of the date of this presentation. 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





Physicians Perspective Efficient, cost-effective treatments

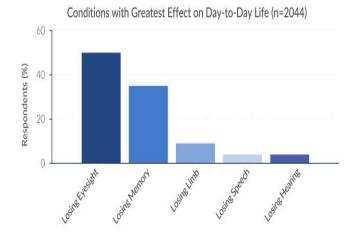
Societal Perspective Pharma industry obligation to help 70% of blind patients are unemployed

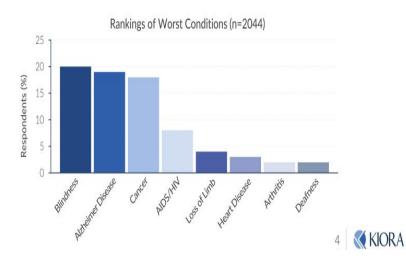


### Why Retinal Diseases?

"...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





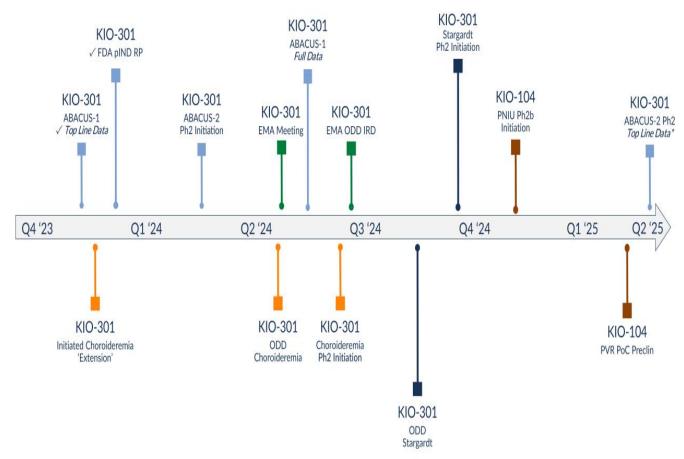
JAMA Ophthalmology, Oct 2016, 134-10.

## Pipeline

Product	Indication		Development Stage			
Route of Delivery		Pre-clinical	Phase 1	Phase 2	Phase 3	(US, EU5, JP)
	Retinitis Pigmentosa (Mutation Agnostic)	Granted Orphan Dru;	g Designation (USA) -	Mar 2022		250,000
KIO-301 Intravitreal	Choroideremia		2			16,000
	Stargardt Disease					99,000
KIO-104 Intravitreal	Posterior Non-Infectious Uveitis	Granted Orphan Dru	3 Designation (EU) – I	May 2015		180,000

<sup>\*</sup> Approximate 2023 populations. Orpha.net, NORD, Ophthalmol Ther. 2021 Sep; 10(3).

### **Upcoming Clinical/Regulatory Milestones**



<sup>\*</sup> Excludes open label extension

 ${\sf RP-Retinitis~Pigmentosa,~PVR-Proliferative~Vitreoretino pathy,~PoC-Proof~of~Concept,~ODD-Orphan~Drug~Designation,}\\$ 

EMA - European Medicines Agency, IRD - Inherited Retinal Disease, PNIU - Posterior Noninfectious Uveitis



### KIO-301 Partnership



	Final Major Terms
Territory	Global less Asia
Field of Use	Ophthalmology (all indications) with development milestones for each indication (RP, CHM, SD) or others
Development Responsibilities	Kiora responsible until Ph3 (JSC)
Development Costs for Ph2	Thea to reimburse Kiora for KIO-301 Research & Development
Development Costs for Ph3	Thea to cover 100%
Upfront Payment	\$16M
Development & Commercial Milestones	
In aggregate	Up to \$285M
Commercial Royalties	
Royalties on Net Sales	Tiered up to low 20%
Total Upfront and Milestones	\$301M (for RP and 2 add'l indications approved in USA and EU with net sales exceeding \$1B)

Non-Binding Term Sheet Signed 5Oct2023, 25Jan2024 for Definitive Agreement Execution Public announcement planned for after market 31Jan2024



### Who is Théa?

- Private, family owned, ophthalmic focused company
- Chibret family founded the French Society of Ophthalmology in 1883
- >100 commercial ophthalmic products globally including: Azasite<sup>®</sup> Cosopt<sup>®</sup> Ivizia<sup>®</sup> Virgan<sup>®</sup> Zioptan<sup>®</sup>

#### Other partnerships include:











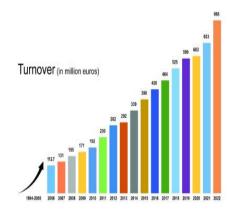








Théa products available in over 75 countries direct or through distributors



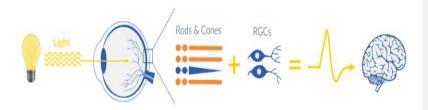


Small Molecule Targeting Vision Restoration

Retinitis Pigmentosa, Choroideremia, Stargardt Disease

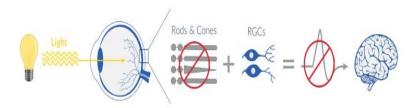


### Inherited Retinal Diseases Lead to Loss of Vision



#### Healthy Vision

- Rods and cones, the photoreceptors of the retina, process light and relay an electrical signal to downstream cells.
- One of these cell types, retinal ganglion cells (RGCs), transmit the signal to the visual cortex.
- The visual cortex is the part of the brain where vision is perceived.

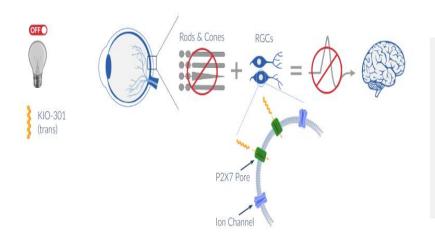


#### Damage from Retinitis Pigmentosa

- Retinitis Pigmentosa (RP) results in progressive degeneration and loss of function of rods and
- This causes continuous impairment of vision that often leads to blindness.
- Importantly, in RP and other inherited retinal diseases, the RGCs remain viable.

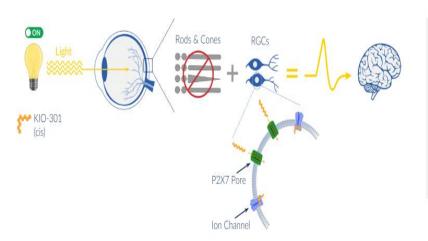


### KIO-301 is a Molecular Photoswitch Designed to Restore Vision



#### KIO-301 without Light

- When photoreceptors die, RGCs undergo some remodeling, including expressing specific proteins that allow KIO-301 to selectively enter the cell with ion channels.
- Without light, KIO-301 remains in its linear "off" (trans) position.



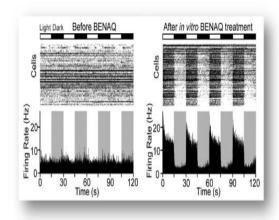
#### KIO-301 with Light

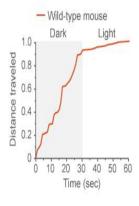
- With light, KIO-301 is activated and bends into its "on" (cis) formation.
- This physically blocks ion channels and activates the cell to transmit signals to the visual cortex.

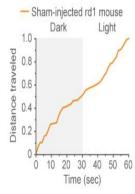


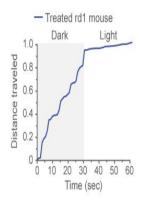
### KIO-301 Reanimates the Retina & Changes Behaviour

Extensive Validation in Preclinical Models







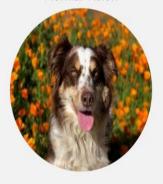


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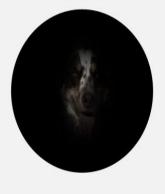
# Retinitis Pigmentosa

#### 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

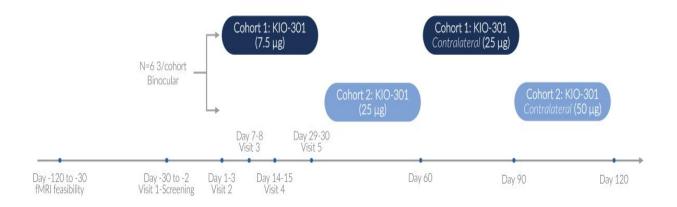
- 50+ genetically distinct subtypes from 150+ mutations
- Inherited disease

#### 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)





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

**Endpoints** 

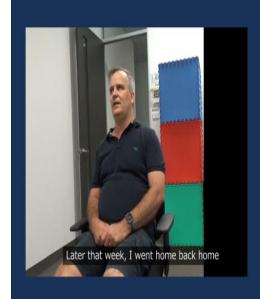
- Primary AEs, PK & labs
- Secondary Assessment days (shown only for Cohort 1 above) is repeated for each cohort per eye; intensity & contrast assessment, kinetic perimetry, functional MRI, etc.

Review

Safety review conducted by Investigators between after sentinel subject

**KIORA** 

### **Patient Testimonials**







Patient 1-02 Baseline VA: NLP Cohort 1 Patient 2-05 Baseline VA: CF Cohort 2 Patient 1-03 Baseline VA: HM Cohort 2

# ABACUS-1 – Primary Endpoint Achieved Single Dose IVT KIO-301 is Safe & Well Tolerated @ 7.5μg, 25μg, 50μg

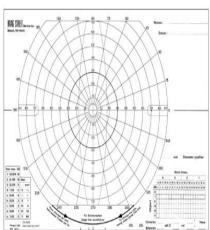
MedDRA Term	KIO-301 7.5μg (N=3); n (%)	KIO-301 25µg (N=6); n (%)	KIO-301 50μg (N=3); n (%)	Severity	Drug Related	Total N=12; n (%)
Ocular Hypertension	1 (33%)	0 (0%)	0 (0%)	Mild	Possible	1 (8.3%)
Eye Swelling	0 (0%)	1 (17%)	0 (0%)	Mild	Unlikely	1 (8.3%)
Eye Pain	0 (0%)	2 (33%)	0 (0%)	Mild	Unlikely	2 (17%)
Anterior Chamber Cell	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Anterior Chamber Flare	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Vitreal Cells	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Retinitis	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Vasculitis	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Iritis	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Keratitic Precipitates	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Photophobia	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Photopsia	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Vitreous Floaters	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Punctate Keratitis	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)
Conjunctival Hyperemia	0 (0%)	0 (0%)	0 (0%)	N/A	N/A	0 (0%)

Ocular AEs only, N = number of patients reporting event, n (%) = % of patients reporting event



### Kinetic Visual Field (Goldmann Perimetry)





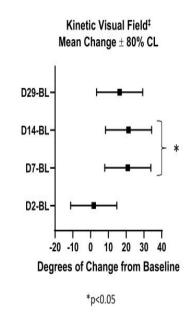
Aim: Evaluate Peripheral Vision at a Basic Level

#### Assessment & Insights:

- Applicability in this population
- Performed by experienced orthoptists
- Limited to 2-axis
- The patient is asked to acknowledge (using a buzzer) when light stimulus is visualized within the dome
- Method facilitates limitation of fixation
  - > Proof-of-feasibility achieved
- > Will expand scope of evaluation to capture increased degrees

### Kinetic Visual Field KIO-301 May Improve Visual Field

#### Kinetic Visual Field<sup>‡</sup> LS Mean ± 80% CL 80-70-Degrees 40-30-10 20 30 Day



#### Kinetic Visual Field

- Goldmann perimetry
- Performed at baseline (BL), and each study visit
- Performed by same group of orthoptists to reduce variability
- Greater improvement observed in Cohort 2

‡ Cohort 2 includes 3 patients (6 eyes)



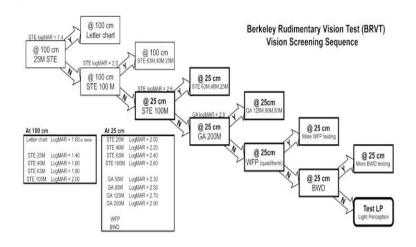
### Visual Acuity — Berkeley Rudimentary Vision Test (BRVT)

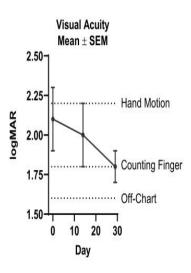
1040-5488/12/8909-1257/0 VOL, 89, NO. 9, PP. 1257–1264
OPTOMETRY AND VISION SCIENCE
Copyright © 2012 American Academy of Optometry

#### **ORIGINAL ARTICLE**

### The Berkeley Rudimentary Vision Test

Ian L. Bailey\*, A. Jonathan Jackson†, Hasan Minto‡, Robert B. Greer‡, and Marlena A. Chu§





Cohort 2 (3 patients, 3 eyes)

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### Light Perception (Intensity & Contrast Assessment)



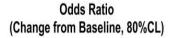
Aim: Evaluate Light Perception at a Basic Level

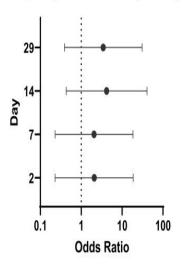
#### Assessment:

- Series of visual stimuli (a series of letters are presented on a screen to the patient via a rear projector)
- Binary outcome (yes/no)
- The subject is asked to acknowledge (verbally and/or physically) when a change in light is perceived
- Asked to also identify object, if possible

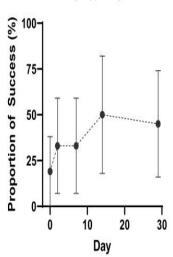
### Light Perception - Cohort 1

KIO-301 may improve light perception in the NLP/BLP Population





#### LSMean ± SEM



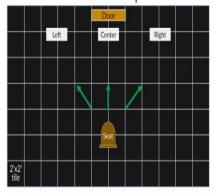
#### Light Perception

#### Insights:

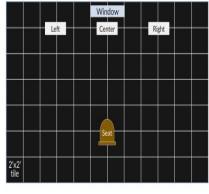
- Cohort 1 subjects demonstrate improved odds ratio on drug
- Odds Ratio strength of association,  $OR=2 \rightarrow 100\%$  increase in the odds of an outcome
  - > e.g., duration of diabetes mellitus (> 15 years) with diabetic retinopathy is >9.0\*
- Cohort 2 subjects are existing light perception patients; therefore, expect little change

### Functional Vision - Multiluminance Orientation & Mobility (MLOM)

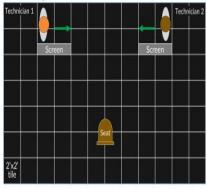
#### **Door Location Test Setup**



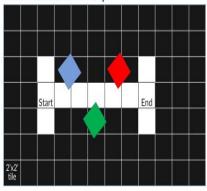
#### Window Location Test Setup



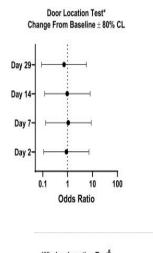
#### Walking Direction Test Setup

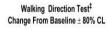


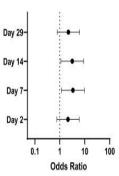
#### **HCRE Course Setup**



# Functional Vision – Multiluminance Orientation & Mobility (MLOM) KIO-301 May Improve Functional Vision







MLOM

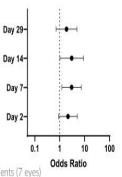
#### Overview

- First time used in ultra-low vision patients
- Question: "Is this test valuable?"

#### Takeaways:

- Important aspect of documenting vision driven movement
- Not all "functional" tests relevant to the population tested
- One or two clinically meaningful functional tests will remain in Phase II
- Will incorporate light-level changes into Phase II

Window Location Test<sup>§</sup>
Change From Baseline ± 80% CL

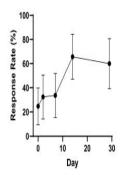


\* Analysis of 4 patients (7 eyes)

† Analysis of 6 patients (10 eyes)

§ Analysis of 3 patients (5 eyes)

Ora-MLOM<sup>TM</sup> Suite of Tests



High Contrast Room Exit Test<sup>‡</sup>

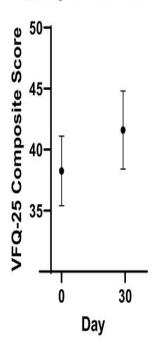
Mean ± SEM



### Visual Function Questionnaire (NEI VFQ-25)

KIO-301 May Improve Patients' Overall Quality of Life

#### **Quality of Life Survey**



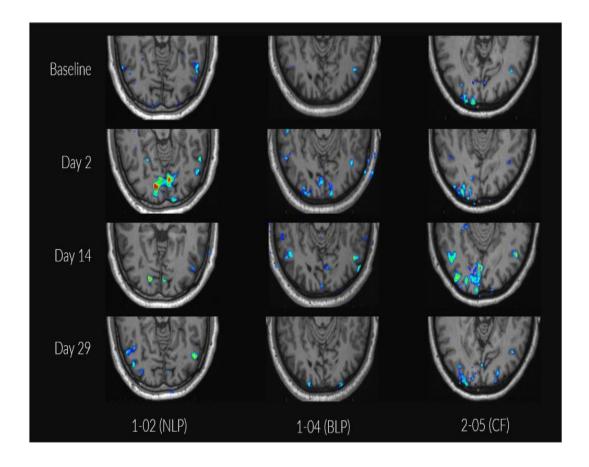
#### Quality of Life

National Eye Institute generated survey assess daily functions related to general health & vision, ocular pain, near & distance activities, social functioning, mental health, dependency, driving, color vision, and peripheral vision.

2-4 point increase is considered clinically meaningful\*

### **Functional MRI**

### Supportive of Cortical Activation

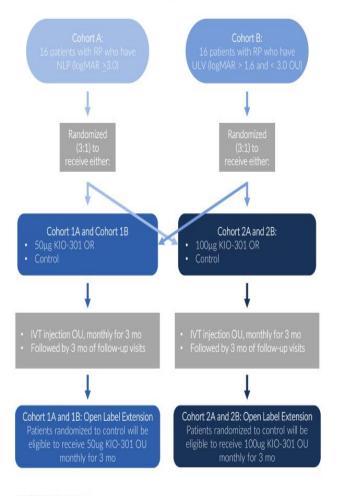


### ABACUS-1 Takeaways



### KIO-301-2101: Phase 2 Study Design (ABACUS-2)

Randomized (3:1), Controlled\*, Double Masked, Multiple Dose Study - 4 Sites (Australia)



- Primary: Safety & Tolerability o AEs, vitals ECG, chemistry and hematology, SD-OCT, FAF, slit lamp, IOP
- Secondary: Efficacy (change from baseline @ 11 weeks)
  - o Visual acuity as measured by BRVT
  - o Visual field as measured by automated Goldmann perimetry
  - o Functional vision as measured by an orientation, mobility, & object identification test
- pIND feedback (12/23) supportive of p2 trial design
- FPFV planned for Q2 2024 & topline data Q2 2025

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### Choroideremia: Inherited Disease that Leads to Blindness

No Approved Therapeutics and Only ONE Active Therapeutic Clinical Trial\*

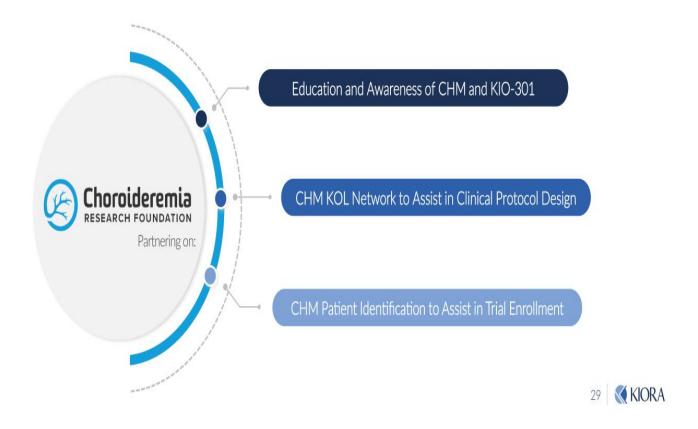


- Orphan Disease: prevalence of 1:50,000, ~12,000 patients in US/EU
- X-linked recessive disease primarily affecting males
- Cause: Inherited mutation in the Choroideremia (CHM) gene encoding Rab escort protein-1 (REP1)
- REP1 is involved in the regulation of intracellular trafficking of Rab proteins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

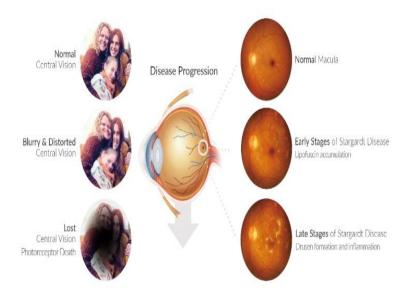
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### Partnership with the Choroideremia Research Foundation

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



### Stargardt Disease: No Approved Therapeutics

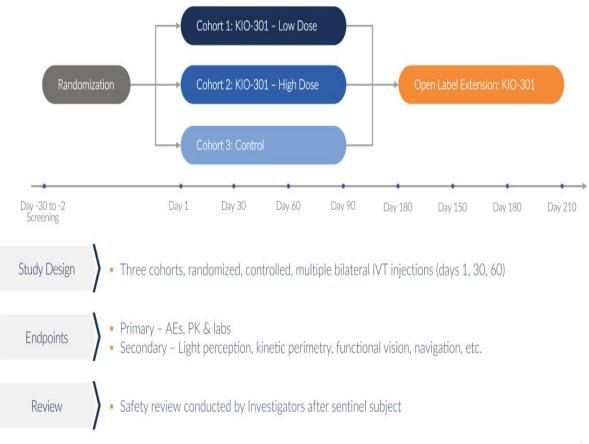


- Orphan Disease: prevalence of 1:10,000 ~30,000 patients in US
- Autosomal recessive disease inherited from parent carriers, typical onset in 2<sup>nd</sup> decade of life, vision loss in 4<sup>th</sup>-5<sup>th</sup> decade.
- Cause: Mutation in the ABCA4 or ELOVL4 gene
- Accumulation of lipofusion 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.

**KIORA** 

### KIO-301-3101: Phase 2 Study Designs (CHM & Stargardt)

Controlled, Randomized Clinical Trial - Australia





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 IC<sub>50</sub>)\*
- KIO-104 is first-in-class in ophthalmology

\*1,000x more potent than Teriflunomide (Aubagio<sup>©</sup> - Sanofi)

33 KIORA

### 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.

#### 1.2 million patients in US + EU5

#### **Clinical Symptoms**

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

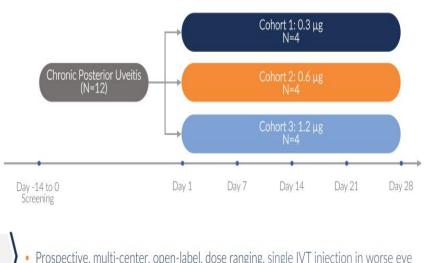
#### **Additional Statistics**

- ~15% of all cases of legal blindness and visual handicap in the US and EU
- ~25% of all cases of blindness globally
- ~\$55k annual tx cost of adalimumab (2<sup>nd</sup> line behind steroids)
- 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



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

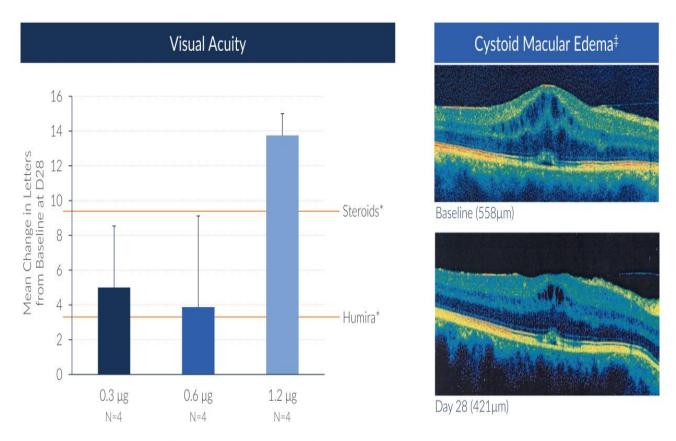
**Endpoints** 

- 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



<sup>‡</sup> 40% of eyes with vision threatening cystoid macular edema at baseline had clinically meaningful improvement





### KIO-104 Path Forward



Posterior Non-Infectious Uveitis

- Ph2b Clinical Trial (EU): Q4 2024 Q1 2026
- Non-Clinical, IND Enabling Studies: Q1 2025 Q1 2026
- Ph3 Registration Study(s) in USA & EU: Q3 2026 Q1 2028
- NDA: Late 2028

- PoC Non-Clinical Testing: Q2 2024 Q1 2025
- Non-Clinical Dose Range Finding: Q4 2024 Q2 2025
- Ph2 Clinical Trial (EU): Q3 2025 Q3 2026

# **CORPORATE OVERVIEW**

### Capitalization

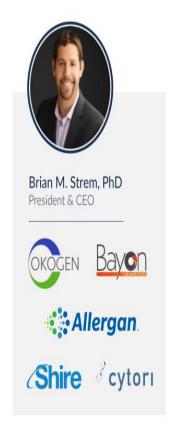
Clean cap table - no ratchets/resets/ACEs; No debt

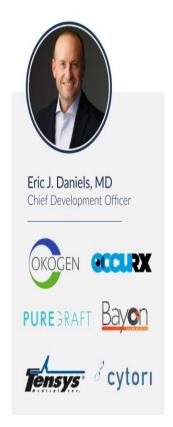
Capitalization as of Feb 5, 2024	Common Stock Equivalents
Common Stock	25,879,020
Series D Convertible Preferred (convertible @ \$141.28/ share)	52
Series F Convertible Preferred (convertible @ \$1.10/share)	381,780
Warrants (WAEP \$0.84)	71,419,749
Options (WAEP \$4.26)	812,945
ESPP	191
Available Option Pool	482,655
Total Fully Diluted	98,976,392

Pro forma cash (30sep2023) ~\$34M\*



### Leadership Team











### **Board of Directors**



Ken Gayron



David Hollander, MD, MBA



**Erin Parsons** 



Aron Shapiro



Carmine Stengone



Praveen Tyle, PhD Chairman



President & CEO

### Scientific Advisory Board

Allen Ho, MD, PhD



Christine Kay, MD, PhD



Mark Pennesi, MD, PhD



Russel Van Gelder, MD, PhD



Charlie Wykoff, MD, PhD



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