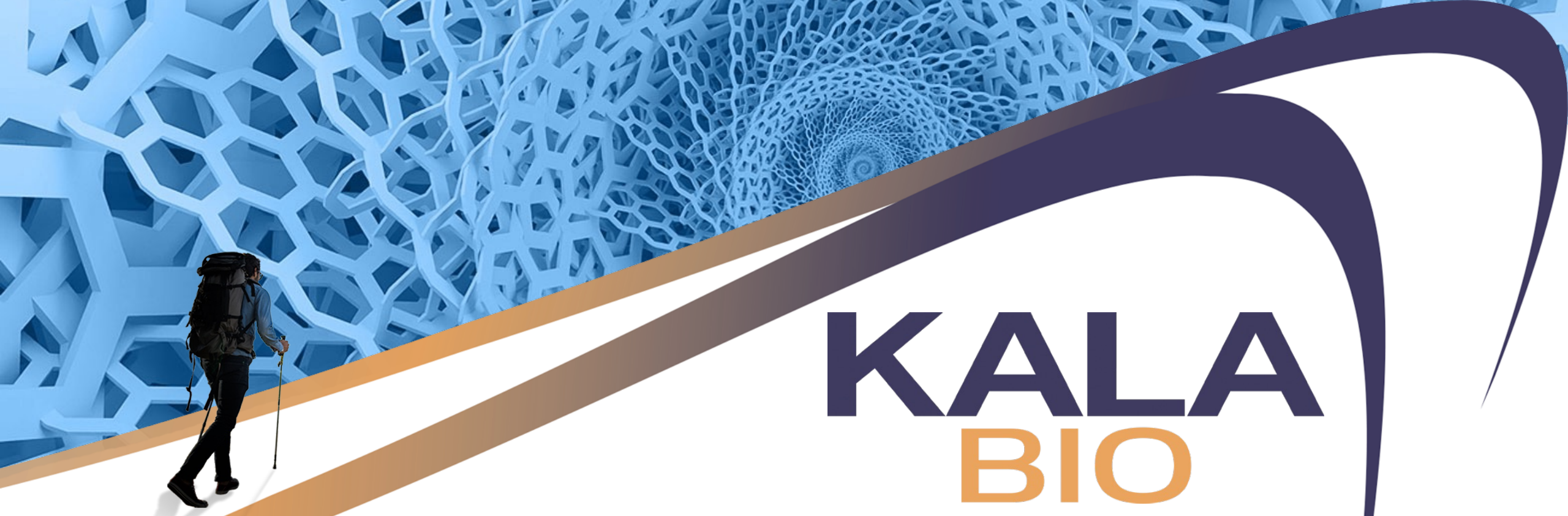

KALA BIO

Innovation in Ophthalmology

Corporate Overview
August 2023

Disclaimers and Notices

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties. Any statements in this presentation about KALA's future expectations, plans and prospects, including but not limited to KALA's expectations with respect to potential advantages of KPI-012 and its MSC-S platform; anticipated timelines to report topline data for the CHASE Phase 2b clinical trial of KPI-012; the design of the CHASE Phase 2b clinical trial; KALA's belief that the Chase Phase 2b trial could serve as the first of two pivotal trials required to support the submission of a BLA to the FDA; the clinical utility of KPI-012 for PCED; KALA's plans to pursue research and development of KPI-012 and its MSC-S platform for other indications; KALA's ability to realize potential milestones payments under the transaction with Alcon and the risk that KALA may not realize the expected benefits of the transaction; the sufficiency of KALA's existing cash resources and other statements containing the words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "likely," "may," "might," "plan," "potential," "predict," "project," "should," "target," "will," "would," and similar expressions constitute forward-looking statements. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: KALA's ability to comply with the requirements under the CIRM award; uncertainties inherent in the initiation and conduct of preclinical studies and clinical trials; uncertainties regarding availability and timing of data from clinical trials; whether results of early clinical trials or trials in different disease indications will be indicative of the results of ongoing or future trials; whether results of the Phase 1b clinical trial of KPI-012 will be indicative of results for any future clinical trials and studies of KPI-012, including the CHASE Phase 2b clinical trial; whether interim data from a clinical trial will be predictive of the results of the trial; uncertainties associated with regulatory review of clinical trials and applications for marketing approvals; KALA's ability to retain and hire key personnel; the impact of extraordinary external events, such as the pandemic health event resulting from the coronavirus (COVID-19), and their collateral consequences; the sufficiency of cash resources and need for additional financing and other important factors, any of which could cause KALA's actual results to differ from those contained in the forward-looking statements, discussed in the "Risk Factors" section of KALA's Annual Report on Form 10-K, most recently filed Quarterly Report on Form 10-Q and other filings KALA makes with the Securities and Exchange Commission.

All information in this presentation is as of August 8, 2023 and should not be considered current after such date. KALA does not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

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KALA BIO Clinical Readout 2Q 2024 in High Value PCED market

Late-Stage Lead Program with "Pipeline-in-a-Product" Potential

- **MSC-S Platform** enables products for multiple potential orphan indications
- **Lead MSC-S Product KPI-012 is "Pipeline in a Product" for Rare Ocular Surface Diseases**
  - Enrolling patients in CHASE (**C**orneal **H**ealing **A**fter **SE**cretome therapy) Phase 2b for Persistent Corneal Epithelial Defect (PCED), a potential $1B+ market opportunity in the US alone
  - Evaluating program for limbal stem cell deficiency (LSCD) & other rare corneal diseases
- **KPI-014** – MSC-S pre-clinical program for rare inherited retinal diseases

Meaningful Upcoming Milestones

- **4Q 2022:** KPI-012 PCED IND filed and accepted ✓
- **1Q 2023:** CHASE Phase 2b trial in PCED initiated ✓
- **2Q 2024:** CHASE Phase 2b top-line data in PCED – CHASE could serve as the first of two pivotal trials to support the submission of a Biologics License Agreement (BLA) to the FDA

Strong Corporate Position

- **Experienced team:** Developed & secured FDA approval for two ophthalmology products, EYSUVIS for dry eye disease and INVELTYS for post ocular surgery - Acquired by Alcon
- **November 2022:** Announced private placement of of $31M
- **April 2023:** Announced award of $15 Million by California Institute for Regenerative Medicine to support ongoing KPI-012 program for the treatment of PCED
- Cash, equivalents and investments of $59.2 million as of 6/30/23 (not including CIRM grant)
- Projected cash runway into Q2 2025

Leadership Team with Extensive Ophthalmology Innovation Experience

TODD BAZEMORE
President and
Chief Operating Officer

santhera · Dyax · sunovion

KIM BRAZZELL, PhD
Head of R&D and
Chief Medical Officer

INSPIRE · NOVARTIS · CIBAVISION · Alcon

MARK IWICKI
Chairman and
Chief Executive Officer

CIVITAS THERAPEUTICS · sunovion · NOVARTIS · MERCK

DARIUS KHARABI
Chief Business Officer

COMBANGIO · KEDALION THERAPEUTICS · LAGUNITA BIOSCIENCES · WSGR

MARY REUMUTH, CPA
Chief Financial Officer

enobia pharma · genzyme · EY

ERIC L. TRACHTENBERG
Chief Legal Officer and Chief
Compliance Officer

enobia pharma · AUXILIUM · sunovion · KOS Pioneering Medicines for a Better Life®

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KALA BIO is Advancing an Innovative Pipeline Based on Its Proprietary Mesenchymal Stem Cell Secretome (MSC-S) Platform for the Treatment of Rare Front and Back of the Eye Diseases

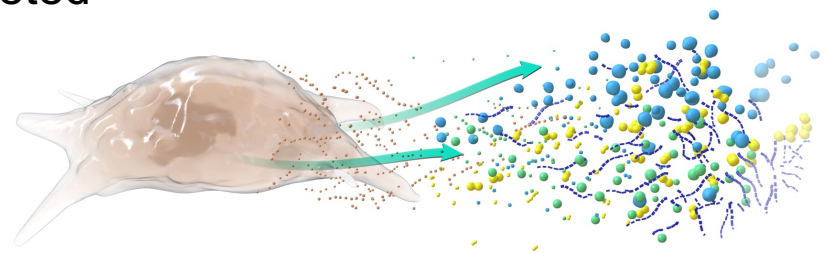
Product Candidate*	Indication	Route of Administration	Pre-Clinical	Phase 1	Phase 2	Phase 3
KPI-012 for Rare Ocular Surface Disease	Persistent Corneal Epithelial Defect (PCED)	Topical				
	Limbal Stem Cell Deficiency (LSCD)	Topical				
	Other rare corneal diseases	Topical				
KPI-014 Program for Rare Inherited Retinal Disease		Intravitreal Injection				

* Product candidates are investigational and have not been approved by any regulatory authority.

KALA BIO is a Leader in the Emerging Field of Mesenchymal Stem Cell Secretome (MSC-S) Therapy

Proprietary MSC-S Platform is a Cell-Free, Regenerative Approach to Disease Management

- Secretomes are produced by collecting the biomolecules that are secreted by cells into the extracellular space to support their health and viability
- Offer many of the benefits of cell therapy without administering cells
- Avoids many of the safety and logistic concerns associated with current cell therapy approaches
- KALA MSC-S GMP manufactured from proprietary cell bank and well-defined CMC process, enabling consistent lot-to-lot safety, stability and biopotency



Secretomes Have Shown Benefits in Ocular Diseases, Including:

- Corneal injury
- Retinal degeneration
- Glaucoma
- Dry eye disease

MSC-S Mechanisms of Action Include:

- Wound Healing/Tissue Repair
- Anti-inflammatory/Immunomodulatory
- Neurotrophic/Neuroprotective

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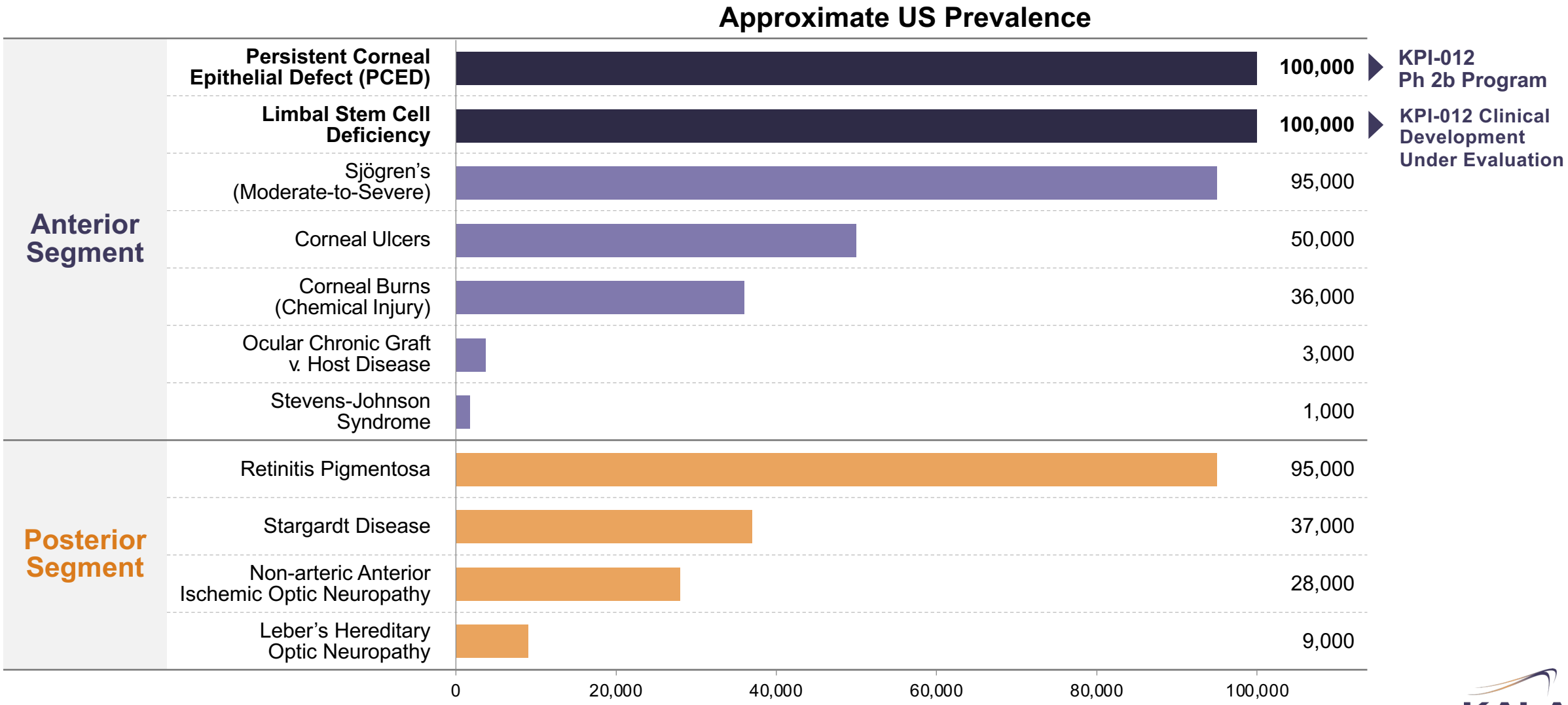
MSC-S Has Potential Applications in Multiple Rare Ocular Disease Segments



Sources: ClearView Analysis; PEDMarketInsights, Epidemiology, and Market Forecast—2030 Delveinsight, 2020; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4498999/. Accessed4Feb2021.

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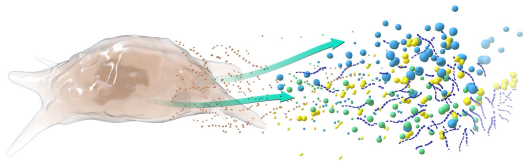
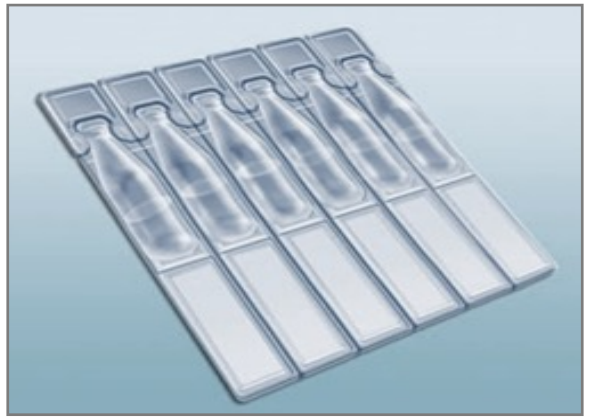
KPI-012 – Regenerative Therapy for Rare Ocular Surface Diseases

KPI-012 – Human Bone Marrow-Derived MSC-S Therapy in Development for Persistent Corneal Epithelial Defect (PCED)

KPI-012 Cell-Free Regenerative Therapy





- Composed of biomolecules produced by human bone marrow-derived MSCs and formulated into topical ocular non-preserved single dose unit formulation
- Simple convenient topical formulation to improve patient experience
- Contains key classes of biomolecules associated with corneal wound healing including growth factors, protease inhibitors and matrix proteins; provides multifactorial approach to addressing impaired corneal healing
- Currently in development for PCED with the goal of complete healing of the PCED
- Multifactorial mechanism of action could address all underlying etiologies of PCED
- Orphan Drug and Fast Track Designations granted by FDA

KPI-012 Has the Potential to Treat Multiple Rare Corneal Diseases

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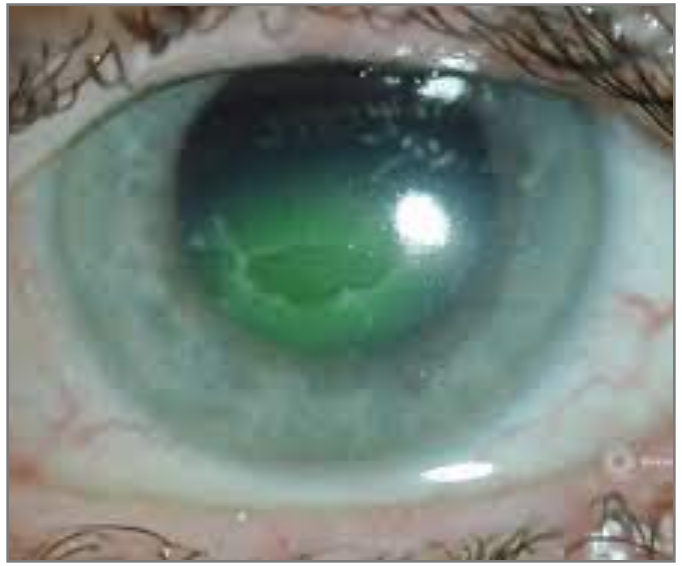
KPI-012 in Phase 2b for PCED



- PCED – persistent non-healing corneal defect that is refractory to conventional treatments
- Significant symptoms (e.g., pain, photophobia, visual impairment); can lead to infection, stromal thinning/scarring, corneal perforation and vision loss
- Can be caused by a number of underlying etiologies including: neurotrophic keratitis, surgical epithelial debridement, trauma, microbial/viral keratitis, corneal transplant, severe dry eye disease
- Patients often have more than one underlying etiology
- Estimated incidence of approximately 100,000 patients in the US and 238,000 in the US, EU and Japan combined
- In Ph 1b clinical trial, KPI-012 produced clinical improvement in all 8 treated PCED patients with complete healing of the PCED in 6 of 8

PCED is an Underserved Market:

- **There are currently no FDA-approved Rx products with a broad PCED indication for all underlying etiologies**
- **Oxervate® (nerve growth factor) has limited indication for Neurotrophic Keratitis (~1/3 PCED cases) and is complex and burdensome for patients to administer**

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PCED is Clinically Burdensome with High Unmet Needs

Currently Approved Therapy Only Addresses ~1/3 of PCED Patients, Takes Months to Work, and is Complex and Burdensome for Patients to Administer

Unmet Needs in the Treatment of PCED:

- **Rapid and sustained wound healing**
  - Patients are at risk of developing permanent vision loss if defects are not healed quickly enough
  - Need for faster resolution of corneal defects
  - A significant percentage of Oxervate patients (14–20% in clinical trials) experience wound reoccurrence
- **Single therapy that addresses multiple etiologies**
  - PCED patients often have more than one underlying etiology, all of which need to be addressed for effective wound healing
- **Therapy that is well-tolerated and easily administered**
  - Oxervate requires 6-times a day dosing and a 19-step preparation process
  - There is a need for treatments with improved tolerability

> *When we're trying to get the patient to heal, we are watching them over weeks, even months.*
> **— Corneal Specialist**

> *The goal is to preserve the quality of the epithelium over time… It's a long-term play.*
> **— Corneal Specialist**

> *We want to heal the corneal epithelium ASAP and reduce the chance of long-term complications such as scarring or infection.*
> **— Corneal Specialist**

> *Ideally a product that is once-a-day or a treatment that worked in 1-week, that would decrease the chance of scarring.*
> **— Corneal Specialist**

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PCED is a Potential >$1B Orphan Market Opportunity

- **There are currently no FDA-approved prescription therapies with a broad PCED indication**
  - Estimated PCED incidence of 100,000 patients in the US and 238,000 in the US, EU and Japan combined
  - Oxervate (nerve growth factor) limited to Neurotrophic Keratitis indication (only represents ~1/3 of PCED cases)
- **KPI-012 has potential to be first approved treatment for broad PCED indication with a differentiated product profile**
  - Potential for rapid and sustained wound healing, improved tolerability, easier for patients to self-administer and an MOA that can address all etiologies
  - Orphan pricing
  - ECP target list of ~1800 Cornea Specialists allows for a small rare disease sales force

KPI-012 Has Significant Commercial Potential and Transitions KALA into the Rare Disease Space

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KPI-012 Contains Key Biomolecules Known to Facilitate Corneal Wound Healing

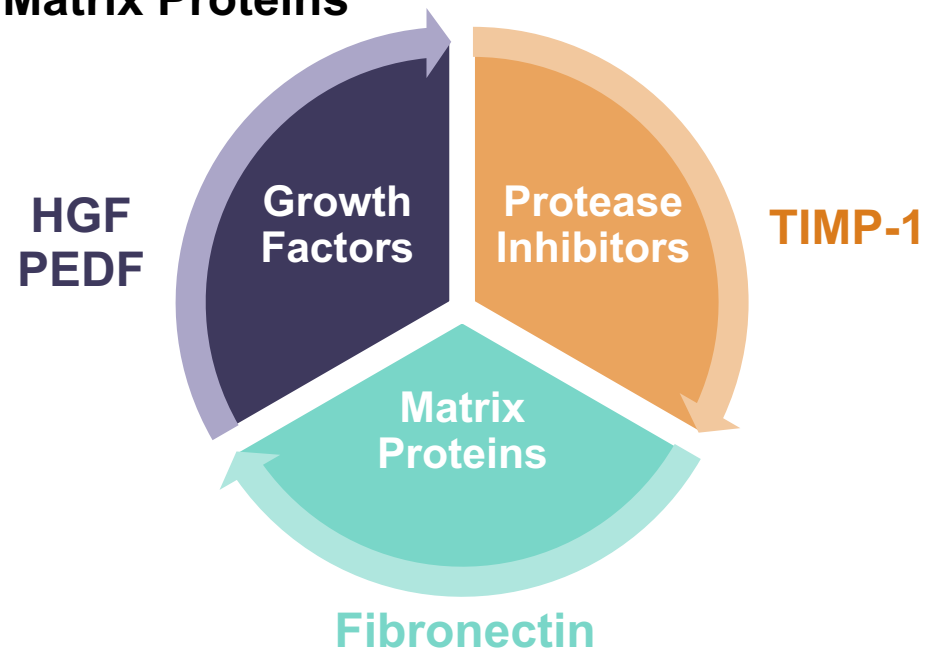
High-throughput human antibody array screening of KPI-012 secretome → **930 proteins with signal intensity above background**

Uniprot database annotation and published literature searches → **242 secreted proteins associated with tissue repair**

Search Subcategorization for Cornea

54 Proteins Associated with Corneal Development, Pathology, or Homeostasis

Key Classes of Corneal Repair Biomolecules in KPI-012 Are Growth Factors, Protease Inhibitors and Matrix Proteins



HGF: Hepatocyte Growth Factor; PEDF: Pigment-Epithelium-Derived Factor; TIMP-1: Tissue inhibitor of metalloproteinase

The Key Classes of KPI-012 Corneal Repair Proteins Are Growth Factors, Protease Inhibitors, and Matrix Proteins. TIMP-1, Fibronectin and HGF Are Compelling Representatives of These Classes and Are Among the Analytes Monitored/Controlled in the KPI-012 Manufacturing Process

Key Biomolecules in KPI-012 Can Address the Impaired Corneal Healing Processes in PCED with a Multifactorial Mechanism of Action

PCED: Impaired Corneal Healing Can be Driven by Disruption of One or More Key Biologic Pathways

- Impaired epithelial cell differentiation, proliferation and migration
- Enhanced proteolysis leading to basement membrane matrix degradation
- Impaired basement membrane matrix impacting epithelial cell attachment

KPI-012 Biomolecule Classes Can Address Impaired Healing with a Multifactorial Mechanism of Action

- **Growth Factors (e.g., HGF, PEDF)** – Promote epithelial differentiation/proliferation/migration
- **Protease Inhibitors (e.g., TIMP-1)** – Inhibit proteases that degrade basement membrane
- **Matrix Proteins (e.g., Fibronectin)** – Repair matrix; promote adherence of epithelial cells to basement membrane; stimulate cell migration

The Key Biomolecules Present in KPI-012 Address Many of the Biologic Pathways Associated with Impaired Cornea Healing

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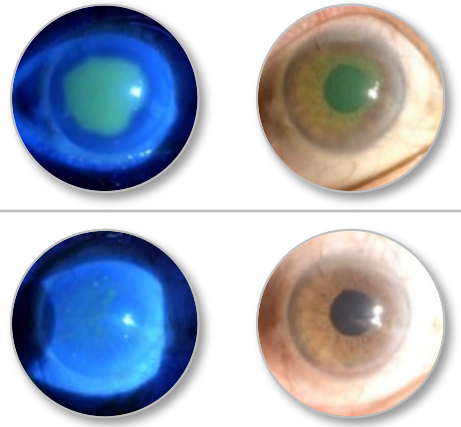
Promising Results in PCED with Twice Daily (BID) Dosing in Phase 1b Clinical Trial

- **Prospective single arm trial**
- **Initial safety cohort of 3 subjects without corneal disease dosed BID for 1 week showed no tolerability or safety issues**
  - Efficacy cohort consisted of 8 PCED patients dosed BID for 1 to 8 weeks and followed for up to 19 weeks
  - Key efficacy endpoint – healing of PCED based on corneal staining photographs
- **Top line results in efficacy cohort**
  - 8 of 8 patients showed improvement in PCED
  - 6 of 8 patients had complete healing of PCED
    - 4 of the 6 completely healed after 1 week
    - 1 of the 6 healed after 2 weeks; the other after 4 weeks
  - All healed patients remained healed through end of follow-up
  - KPI-012 well-tolerated with no safety issues observed

6/8 Completely Healed PCED Patients

	Mean	Median
PCED Size at Baseline (mm x mm)	5.1 x 3.5	5.6 x 2.9
PCED Duration at Baseline (Days)	58	32
PCED Healing Time (Days) **KPI-012, 2x/day**	12	7



Representative images for a healed patient study eye

Results Support Moving Directly to Phase 2b Clinical Trial

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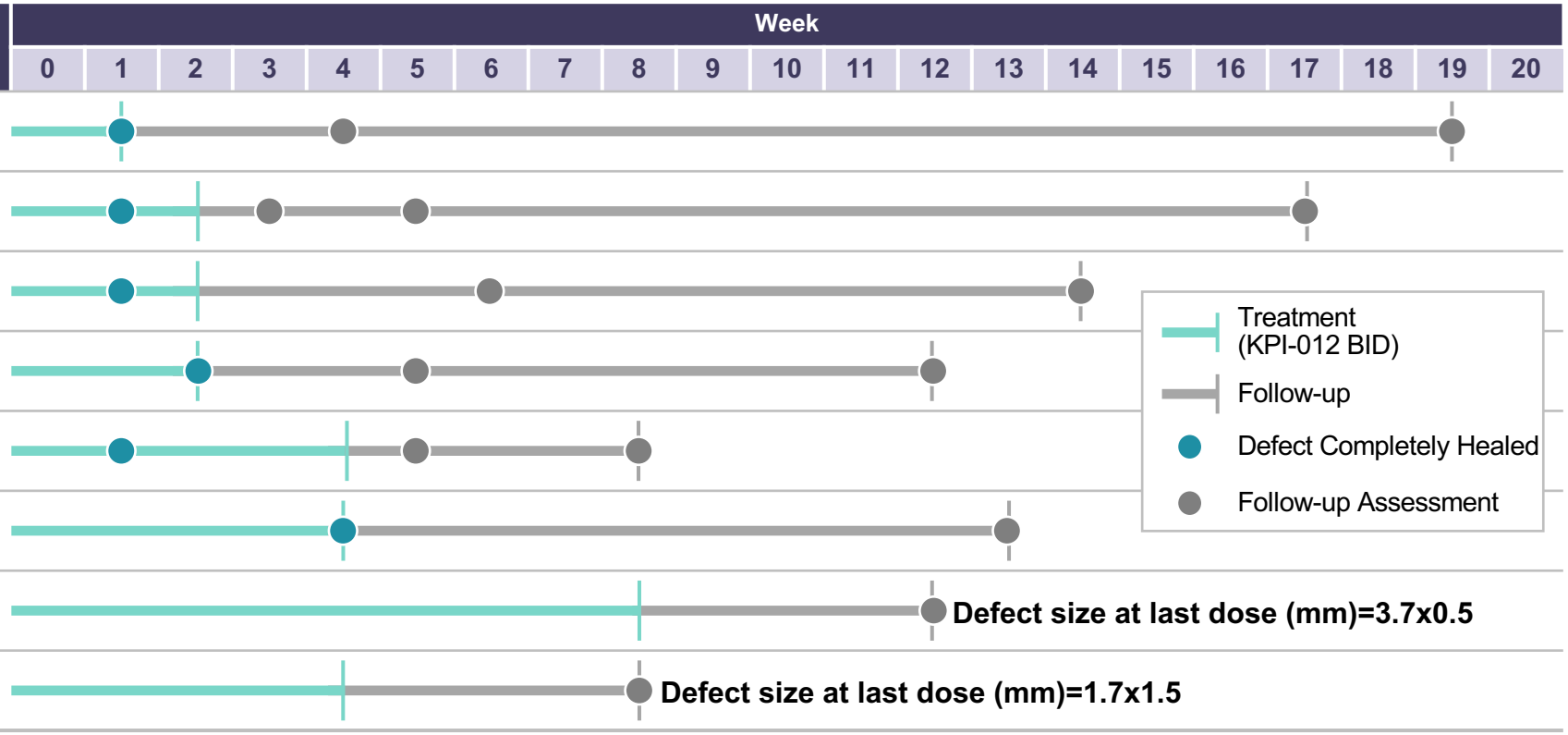
Complete Healing in 6 of 8 PCED Patients After 1–4 Weeks of BID Treatment with KPI-012 in Phase 1b Clinical Trial

Patient ID	PCED Etiology	Baseline Defect Duration (Size, mm)[a]
1-05	Neurotrophic (Diabetic)	17 days (6.5x5.5)
1-06	Neurotrophic (Diabetic)	28 days (6x5.9)
1-07	Neurotrophic (Diabetic)	15 days (5.2x2.5)
1-08	Neurotrophic (Diabetic)	41 days (6.2x3.3)
2-01	Stevens-Johnson/ Dry Eye	213 days (4.7x2)
2-03	Post-Infectious Keratitis	37 days (2.2x1.5)
2-04	Neurotrophic (Diabetic)	35 days (5.7x2.4)
2-05	Neurotrophic/ Dry Eye	871 days (3x2)



- 6 of 8 of participants completely healed by Week 4 of the trial and remained healed through end of follow-up
- Improvement in PCED lesion size was observed in participants who did not heal completely

Rapid and Sustained Healing in Patients with Varying Etiologies and Duration of Disease Suggests Potential for Broad Efficacy in PCED

[a] Mean PCED size at baseline (mm)=5.1x3.5; Mean PCED Duration at Baseline (Days)=58; Mean PCED Healing time with treatment (Days)=12.

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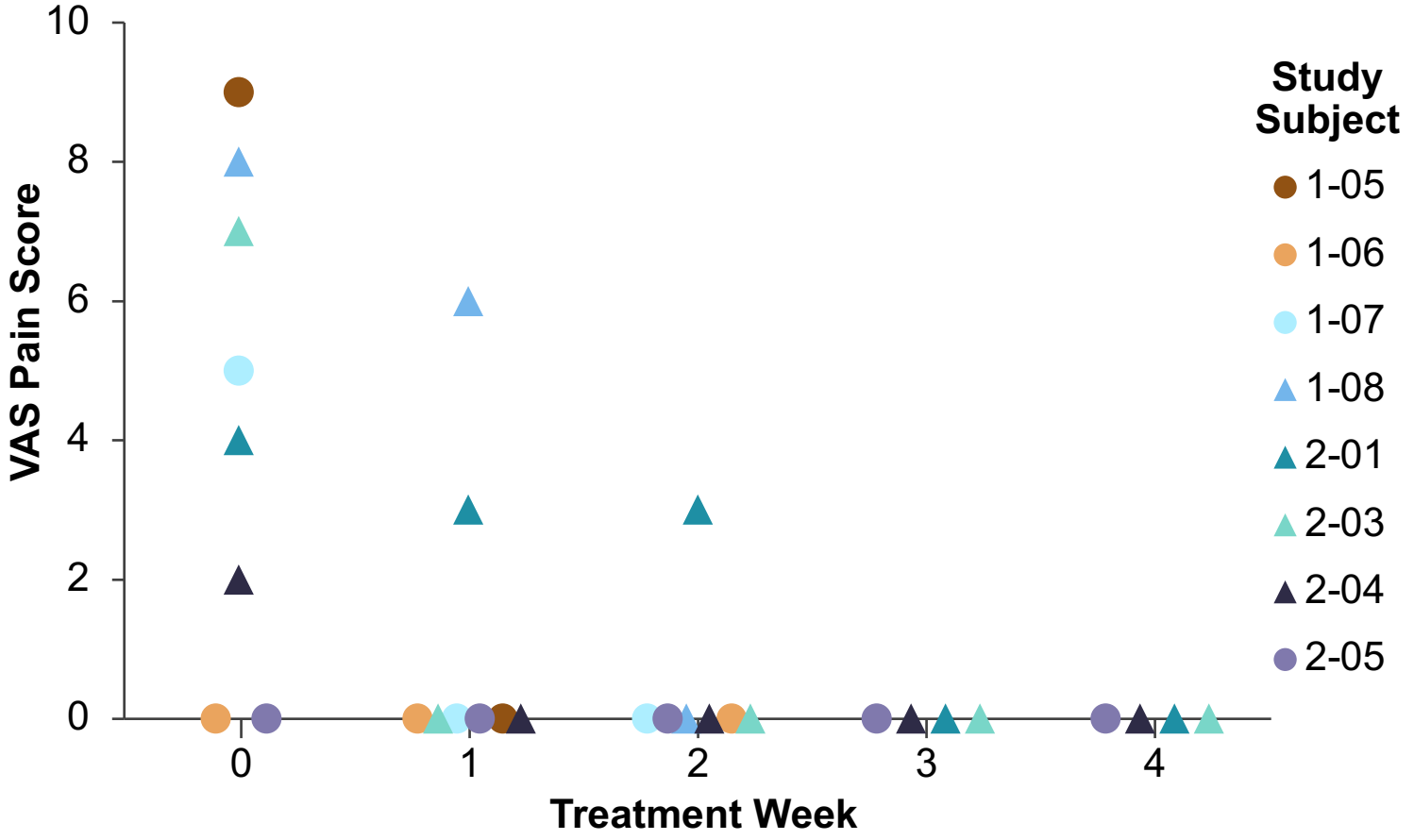
Significant Pain Relief Within 1 Week of Treatment



Of Patients Reporting Pain at Baseline (6 of 8):

100% reported pain reduction at Week 1

67% reported 0 pain score at Week 1

100% reported 0 pain score at Week 3

Rapid Improvement in Pain in PCED Patients Treated with KPI-012

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KPI-012 Development Progressing Towards Key Ph 2b Readout in Q2 2024

- Pre-IND meeting with FDA in 2020
  - FDA open to broad PCED indication
  - Provided guidance on CMC, clinical trial design and endpoints
- Orphan Drug and Fast Track designations granted by FDA for PCED
- US IND accepted Dec 2022; CHASE Phase 2b clinical trial initiated in January 2023
  - Top line Phase 2b results targeted for Q2 2024
- Expect to leverage KPI-012 PCED CMC program and other IND-enabling activities to support anterior segment follow-on indications for KPI-012

If Phase CHASE 2b Results Positive Could Serve as First of Two Required Trials to Support BLA Submission

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KPI-012 Clinical Update: CHASE Trial Design

- Initial 2-patient open label evaluation to establish safety of 3 U/ml QID dosing completed with no safety findings
- 90 patient multicenter, randomized, double-masked efficacy trial with 1 U/ml QID, 3 U/ml QID and vehicle QID (30/treatment arm, 1:1:1 randomization) ongoing
- 8-week treatment period plus 2 week and 6-month follow-up
- ~35–40 investigative sites (mix of academic and independent sites)
- Primary endpoint
  - Proportion of subjects completely staining free at Week 8 in the KPI-012 treatment group vs. vehicle group with no staining at the site of the original lesion at Week 10 and no persistent staining elsewhere in the cornea at Week 10
  - Based on central-reader assessment of photographs of corneal fluorescein staining
- Top line data readout targeted for Q2, 2024

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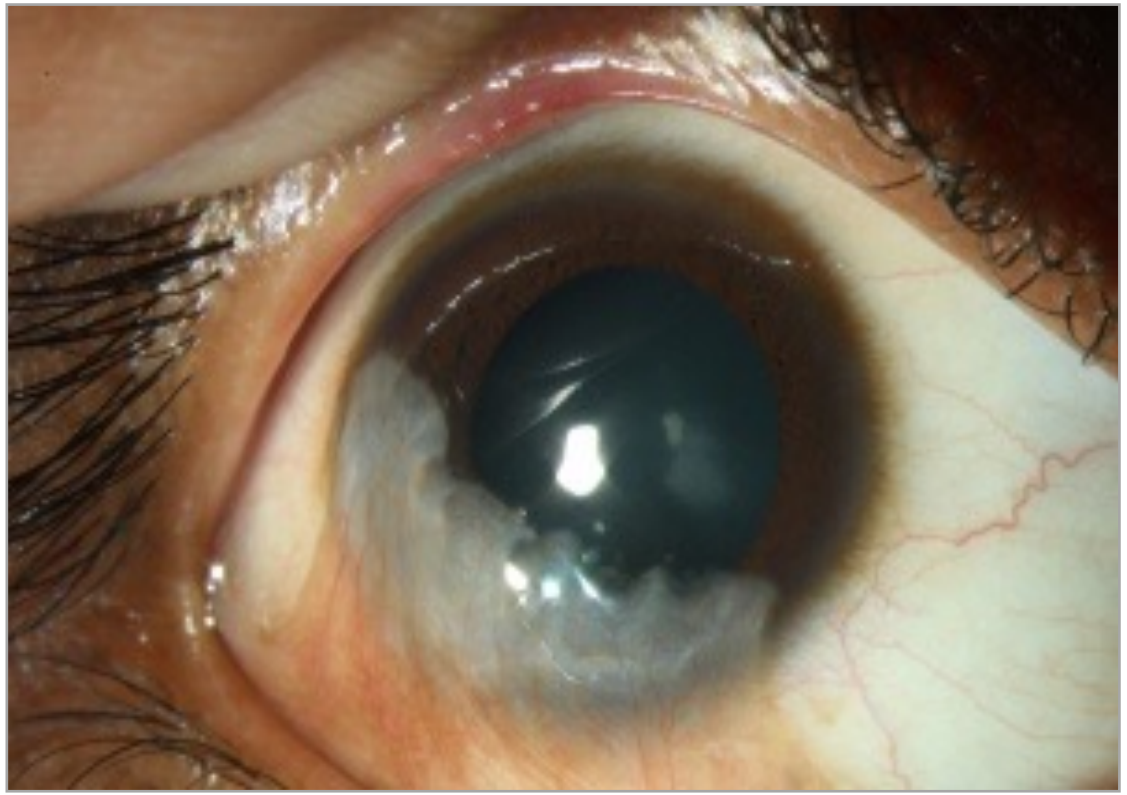
First KPI-012 Follow-on Indication Under Evaluation: Limbal Stem Cell Deficiency (LSCD)

- LSCD is a loss or deficiency of limbal epithelial stem cells, which play an essential role in maintaining the integrity of the ocular surface
- Sequalae include recurrent epithelial breakdown/keratopathy, conjunctival overgrowth, neovascularization, chronic inflammation and corneal scarring
- Can lead to loss of corneal clarity and vision impairment
- Also associated with significant symptomology
- There is a significant unmet need in LSCD
  - Currently, there are few treatment options and no pharmacological treatments
- ~100,000 patients in the US have LSCD



Source: ClearView Analysis.

KPI-012 Manufacturing Process Overview

Thaw and Seed Working Cell Bank Vial

Bioreactor Production

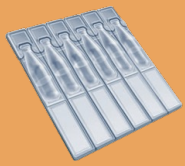
Harvest Secretome

Processing

Drug Substance

Drug Product

- Formulation/Fill
- Blow-fill-seal unit dose



Process Control Analytics

KPI-012 manufacturing process is robust and scalable

- Drug Substance currently manufactured at scale believed to support pivotal clinical studies and early commercialization
- Drug Product currently manufactured using industry-standard unit dose blow-fill-seal formulation and filling process

FDA Pre-IND meeting feedback supportive of current methods to evaluate product potency, consistency and stability, including use of a subset of proteins as critical quality attributes and a cell-based potency assay

- Validated assays developed for protein Critical Quality Attributes (CQAs)
- Multiple engineering batches assaying CQAs and additional KPI-012 constituents support robust and consistent manufacturing process

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KPI-014 – Pre-Clinical MSC-S Program for Rare Inherited Retinal Diseases

KPI-014: Pre-Clinical MSC-S for Rare Inherited Retinal Disease

- There is a significant need for novel therapies for slowing of disease progression in inherited retinal diseases, including Retinitis Pigmentosa and Stargardt Disease
- Over 75% of clinical pipeline assets for Retinitis Pigmentosa are gene-specific therapies, which greatly limits trial eligibility
- Secretomes have demonstrated a neuroprotective effect in both *in vitro* and *in vivo* models of retinal degeneration
- KPI-014 contains neurotrophic factors, growth factors, anti-inflammatory/immune-modulatory factors and antioxidant inhibitors with the potential to protect and preserve retinal cell function

KPI-014 is a Promising Gene-agnostic Approach for the Treatment of Inherited Retinal Diseases

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Patent and Regulatory Exclusivity

Patent and Regulatory Exclusivity

- Regulatory Exclusivity in the U.S.
  - If approved as a new biologic product under a BLA, KPI-012 should enjoy 12 years market exclusivity during which biosimilars cannot be launched
  - 7-year orphan exclusivity on the treatment of PCED
- Patent Exclusivity
  - A worldwide patent portfolio related to MSC-S and its use for the treatment of an ocular condition, such as PCED and other ocular surface diseases, has a 20-year patent term ending in 2040
  - If approval occurs after 2026, a patent term extension* may be available in the U.S., which can extend the term beyond 2040
- KPI-012 received Fast Track designation

Potential U.S. Regulatory Exclusivity and IP Protection Beyond 2040

* While a maximum of 5 years of patent term extension is available, the total patent life with the patent term extension cannot exceed 14 years from the approval date. If the patent life after approval has 14 or more years, the product would not be eligible for patent term extension.

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Near Term Clinical Readout in >$1B Orphan Market Opportunity

Late-Stage Lead Program with "Pipeline-in-a-Product" Potential

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Thank You