



# Ocular Therapeutix 2024 Investor Day

June 13, 2024

# Forward Looking Statements and Disclaimers

Any statements in this presentation about future expectations, plans, and prospects for the Company, including the development and regulatory status of the Company's product candidates, including the timing, design, and enrollment of the Company's ongoing and planned Phase 3 clinical trials of AXPAXLI (also called OTX-TKI) for the treatment of wet AMD; the Company's plans to advance the development of AXPAXLI, PAXTRAVA and its other product candidates; the size of potential markets for the Company's product candidates; the potential utility of any of the Company's product candidates; the sufficiency of the Company's cash resources; and other statements containing the words "anticipate", "believe", "estimate", "expect", "intend", "goal", "may", "might", "plan", "predict", "project", "target", "potential", "will", "would", "could", "should", "continue", and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors. Such forward-looking statements involve substantial risks and uncertainties that could cause the Company's preclinical and clinical development programs, future results, performance, or achievements to differ significantly from those expressed or implied by the forward-looking statements. Such risks and uncertainties include, among others, the timing and costs involved in commercializing DEXTENZA or any product or product candidate that receives regulatory approval; the ability to retain regulatory approval of DEXTENZA or any product or product candidate that receives regulatory approval; the initiation, design, timing, conduct, and outcomes of clinical trials, including the SOL-1 trial, the planned SOL-R trial, and the Company's other ongoing clinical trials; the risk that the FDA will not agree with the Company's interpretation of the written agreement under the SPA for the SOL-1 trial; the risk that even though the FDA has agreed with the overall design of the SOL-1 trial, the FDA may not agree that the data generated by the SOL-1 trial supports potential marketing approval; the risk that the FDA might not agree to the Company's proposed design for the planned SOL-R trial; uncertainty as to whether the data from earlier clinical trials will be predictive of the data of later clinical trials, particularly later clinical trials that have a different design or utilize a different formulation than the earlier trials; availability of data from clinical trials and expectations for regulatory submissions and approvals; the Company's scientific approach and general development progress; the availability or commercial potential of the Company's product candidates; uncertainties inherent in estimating the Company's cash runway, future expenses, and other financial results, including its ability to fund future operations, including clinical trials; the Company's existing indebtedness and the ability of the Company's creditors to accelerate the maturity of such indebtedness upon the occurrence of certain events of default; the Company's ability to enter into strategic alliances or generate additional funding on a timely basis, on favorable terms, or at all; and other factors discussed in the "Risk Factors" section contained in the Company's quarterly and annual reports on file with the Securities and Exchange Commission. In addition, the forward-looking statements included in this presentation represent the Company's views as of the date of this presentation. The Company anticipates that subsequent events and developments will cause the Company's views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company specifically disclaims any obligation to do so, whether as a result of new information, future events or otherwise, except as required by law. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of this presentation.

This presentation discusses investigational product candidates in development. Their efficacy and safety profiles have not been established, and they have not been approved for marketing by the FDA.

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# Ocular Therapeutix Overview & Priorities

Pravin U. Dugel, MD

Executive Chairman, President & CEO



MISSION STATEMENT:

**Improve Vision in the Real World.**

# Ocular Therapeutix: Transformation Into a Retina-focused Company



# Ocular Therapeutix: Transformation Into a Retina-focused Company



# AXPAXLI Has Demonstrated Proof-of-Concept in Three Phase 1 trials

## wAMD Trials Demonstrated **Monotherapy Proof-of-Concept** and **Potential Best-in-class Durability**

### Phase 1 Australia Trial<sup>1</sup>: **Monotherapy Activity**

#### Baseline

CSFT: 484µm  
BCVA: 56  
letters (20/80)

#### Month 2

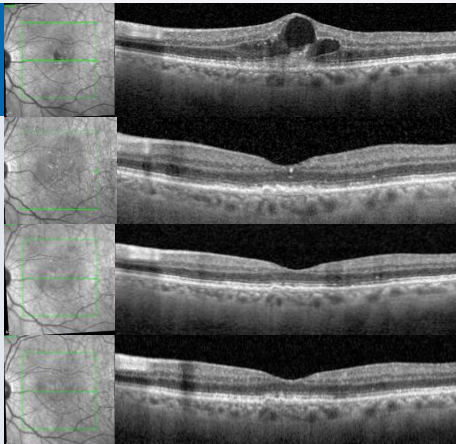
CSFT: 236µm  
BCVA: 74  
letters (20/30)

#### Month 6

CSFT: 239µm  
BCVA: 80  
letters (20/25)

#### Month 9

CSFT: 244µm  
BCVA: 81  
letters (20/25)



Treatment naïve & experienced patients

Patients received no anti-VEGF injections

### Phase 1 US Trial<sup>2</sup>: **Potential Best-in-class Durability**



### **Visual Acuity & OCT Findings Comparable to SOC Eylea®**

Anti-VEGF experienced patients

Single injection AXPAXLI vs On-Label Eylea



wAMD (Wet age-related macular degeneration); NPDR (Non-proliferative diabetic retinopathy); CSFT (Central subfield thickness); BCVA (Best-corrected visual acuity); SOC (Standard of care); VEGF (Vascular endothelial growth factor); OCT (Optical coherence tomography).

**1.** Ocular Therapeutix, Inc. CLN-0046: Treatment of AMD Subjects With OTX-TKI. ClinicalTrials.gov identifier: NCT03630315. Updated August 8, 2022. Accessed May 28, 2024. <https://www.clinicaltrials.gov/study/NCT03630315?intr=OTX-TKI&rank=1>. **2.** Ocular Therapeutix, Inc. Study to Evaluate the Efficacy and Safety of Intravitreal OTX-TKI (Ocular Therapeutix) (Axitinib Implant) in Subjects With Neovascular Age-Related Macular Degeneration. ClinicalTrials.gov identifier: NCT06223958. Updated February 13, 2024. Accessed May 28, 2024. Previous reported numbers (73% at 10 months) include investigator discretion rescues. **3.** Ocular Therapeutix, Inc. Study to Evaluate the Safety, Tolerability, and Efficacy of OTX-TKI in Subjects With Moderately Severe to Severe Non-proliferative Diabetic Retinopathy. ClinicalTrials.gov identifier: NCT05695417. Updated December 8, 2023. Accessed May 28, 2024. Ocular Therapeutix data on file

# AXPAXLI Has Demonstrated Proof-of-Concept in Three Phase 1 trials

## wAMD Trials Demonstrated **Monotherapy Proof-of-Concept** and **Potential Best-in-class Durability**

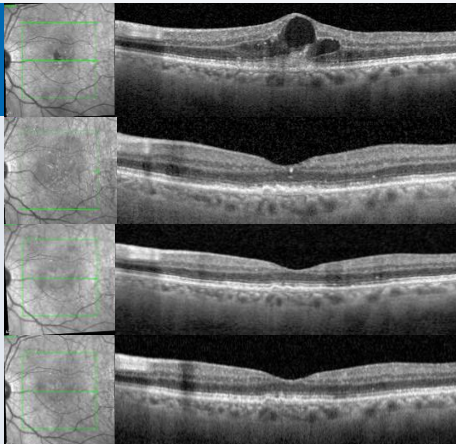
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Treatment naïve & experienced patients

Patients received no anti-VEGF injections

### Phase 1 US Trial<sup>2</sup>: **Potential Best-in-class Durability**



**Visual Acuity & OCT Findings Comparable to SOC Eylea®**

Anti-VEGF experienced patients

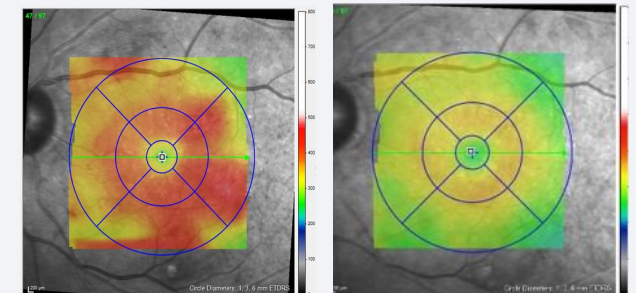
Single injection AXPAXLI vs On-Label Eylea

## Potential for Stable or Improved NPDR

### Phase 1 US Trial<sup>3</sup>: **Durable and Sustained Monotherapy Activity**

**BASELINE**

**WEEK 48**

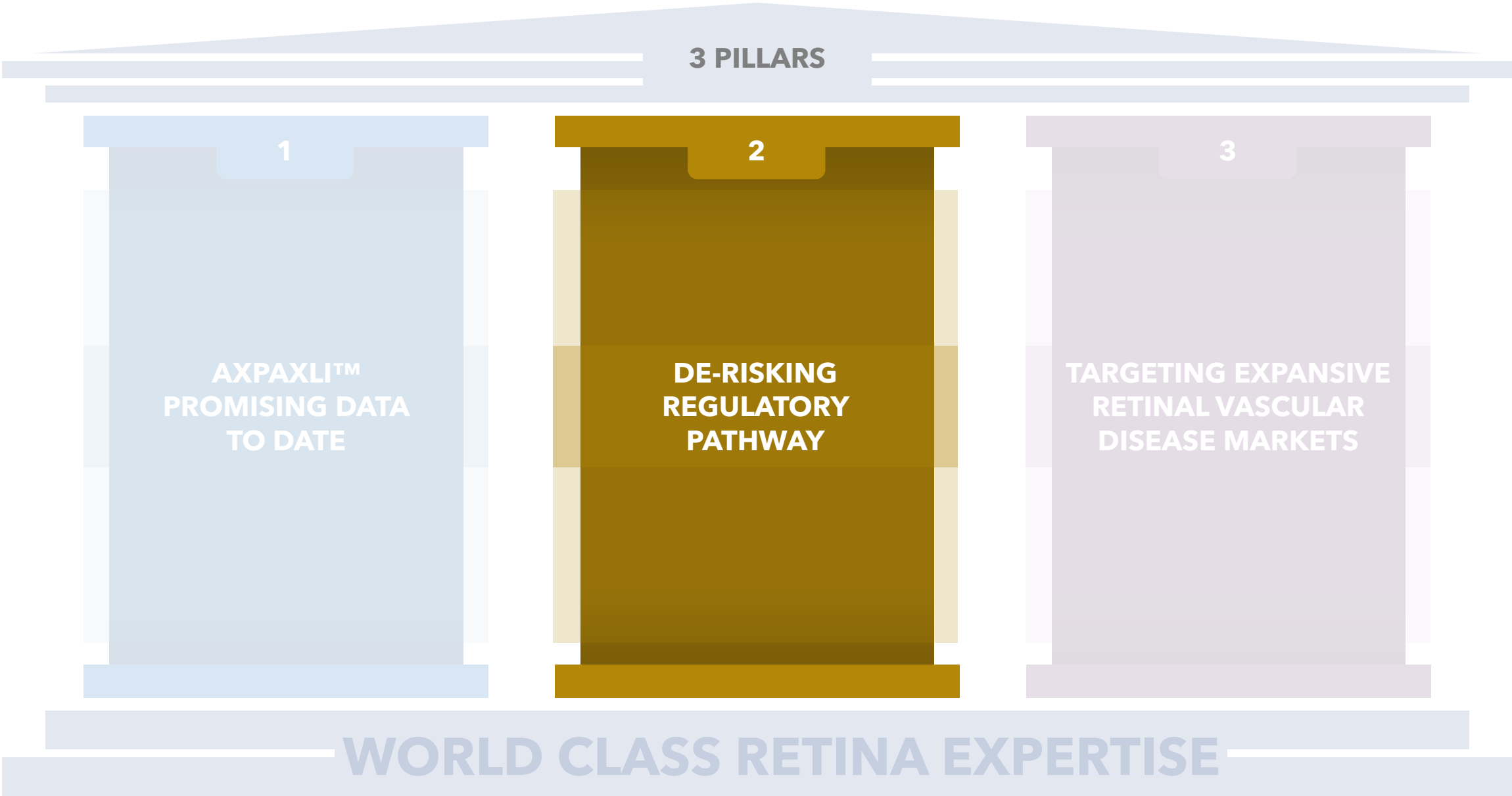


CSFT = 320 µm

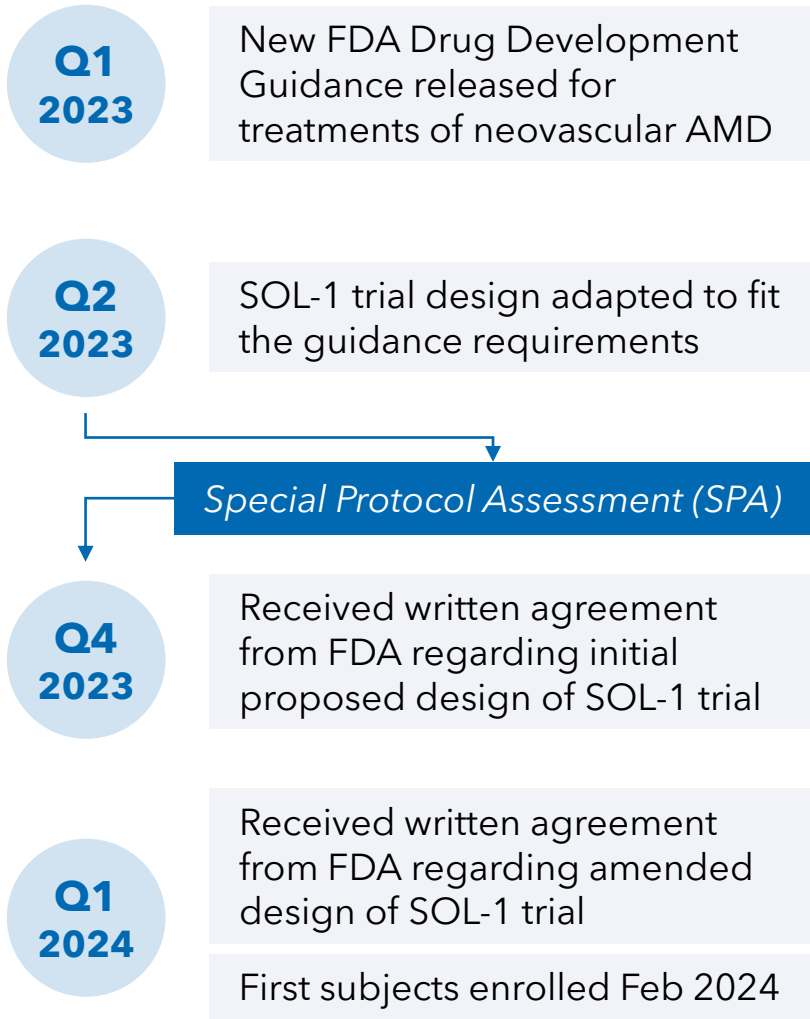
CSFT = 289 µm



# Ocular Therapeutix: Transformation Into a Retina-focused Company



# De-risking Regulatory Path Following New FDA Guidelines



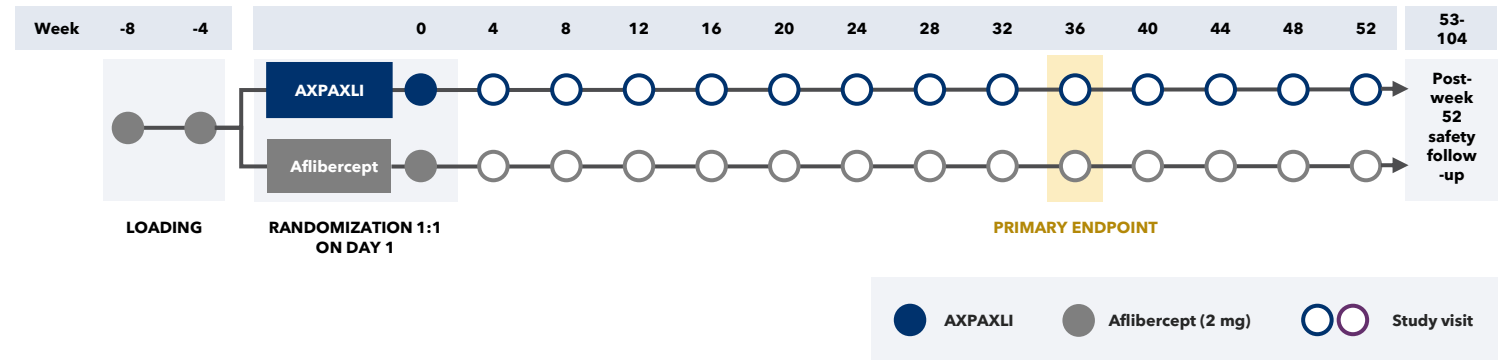
## SOL-1: MULTI-CENTER, DOUBLE-MASKED, RANDOMIZED, PARALLEL-GROUP TRIAL

### DESIGN

- Primarily conducted in the US
- Two arm trial with ~150 subjects per group

### KEY INCLUSION CRITERIA

- Subjects who are treatment naïve in the study eye with a diagnosis of choroidal neovascularization or sub foveal neovascularization at enrollment
- Visual acuity of 20/80 or better at enrollment
- Vision acuity of 20/20 at Day 1 OR gain of at least 10 ETDRS letters at Day 1



### PRIMARY ENDPOINT

Proportion of subjects who maintained visual acuity, defined as <15 ETDRS letters of BCVA loss at Week 36



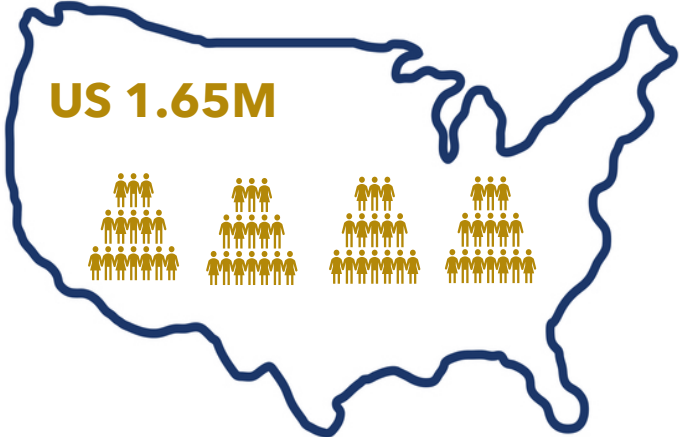
AMD (Age-related macular degeneration); BCVA (Best-corrected visual acuity); ETDRS (Early Treatment Diabetic Retinopathy Study). Ocular Therapeutix data on file.

# Ocular Therapeutix: Transformation Into a Retina-focused Company



# Wet AMD: AXPAXLI Has Expansive Market Potential

## 2024 US WET AMD PREVALENCE<sup>1</sup>



## CURRENT WET AMD MARKET LANDSCAPE<sup>1</sup>



Wet AMD remains undertreated today due to treatment burden<sup>1</sup>



**Up to 40% discontinuation** and getting worse over time<sup>2,3</sup>

**AXPAXLI has the potential to address the challenges of**

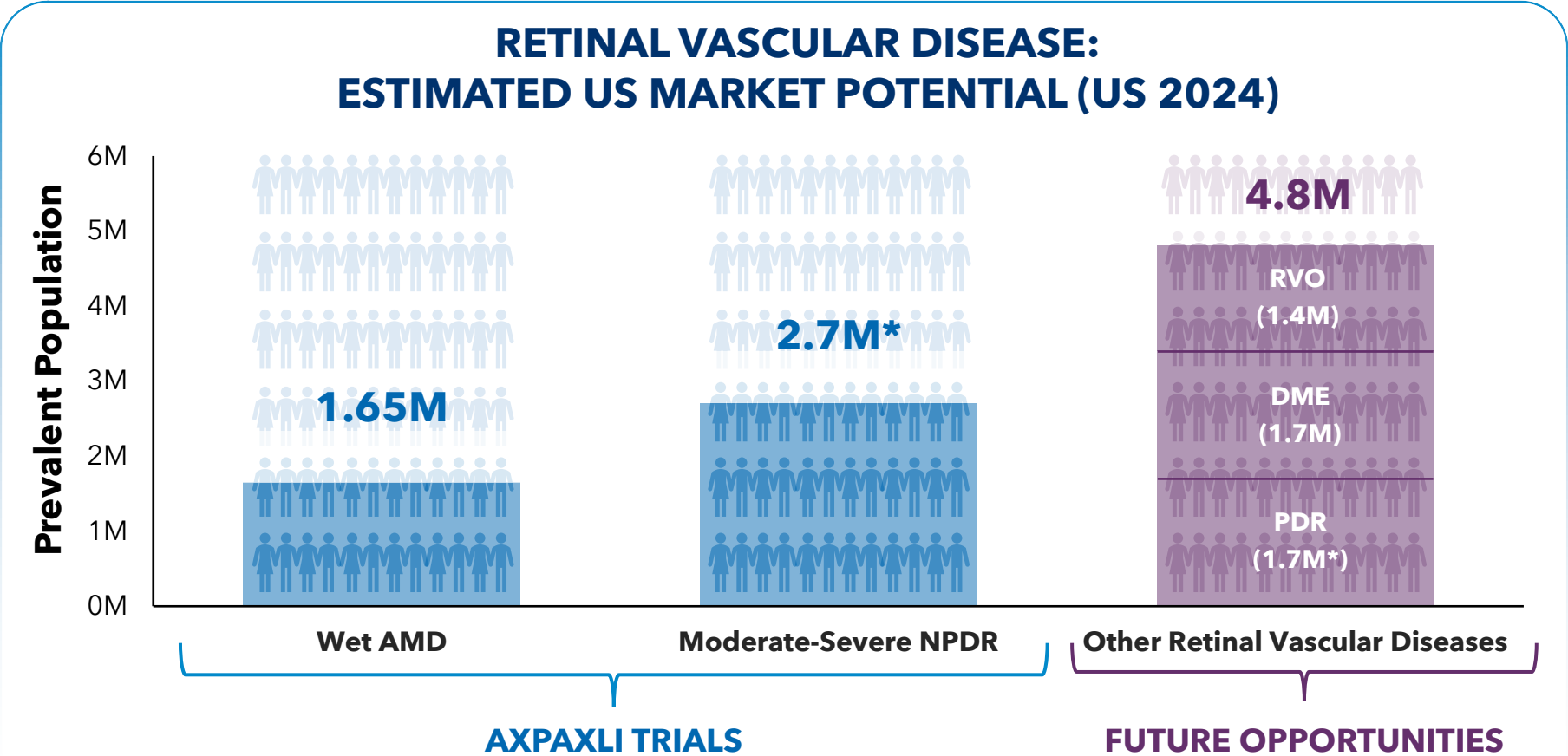
- ✓ **Undertreatment**
- ✓ **Discontinuation**
- ✓ **Vision decline**

*over time associated with current anti-VEGF therapies<sup>2</sup>*



AMD (Age-related macular degeneration); IVT (Intravitreal)  
<sup>1</sup>. Downs P. 2023 Retinal Pharmaceuticals Market Report: Global analysis for 2022 to 2028. Market Scope; 2023. <sup>2</sup>. Weng CY et al. Ophthalmic Surg Lasers Imaging Retina. 2023 Nov;54(11):654-659. <sup>3</sup>. MacCumber et al. Canadian Ophthalmology Society. 2021; 10.1016/j.jcjo.2021.10.008.

# The Market Opportunity for AXPAXLI Extends Beyond Wet AMD



Total US  
Market  
Potential:  
**9.2M**

**Ocular Therapeutix poised to address full market potential**



AMD (Age-related macular degeneration); DME (Diabetic macular edema); NPDR (Non-proliferative diabetic retinopathy); PDR (Proliferative diabetic retinopathy); RVO (Retinal vein occlusion).  
 \* Excludes patients with DME as some patients have both NPDR/PDR and DME.  
 Downs P. 2023 Retinal Pharmaceuticals Market Report: Global analysis for 2022 to 2028. Market Scope; 2023.

# Developing AXPAXLI for Retinal Vascular Diseases To Address Current Challenges With Existing Treatments



## TREATMENT BURDEN

**Anti-VEGF dosing frequencies are burdensome, contributing to vision loss over time<sup>1</sup>**



## POOR LONG-TERM OUTCOMES

**Treatment discontinuation:** Dosing regimens are a burden to patients and the main driver of treatment discontinuation<sup>2</sup>

**Retinal fluctuations:** Pulsatile dosing causes retinal fluctuations between doses and can lead to worse outcomes due to fibrosis and atrophy<sup>3,4</sup>

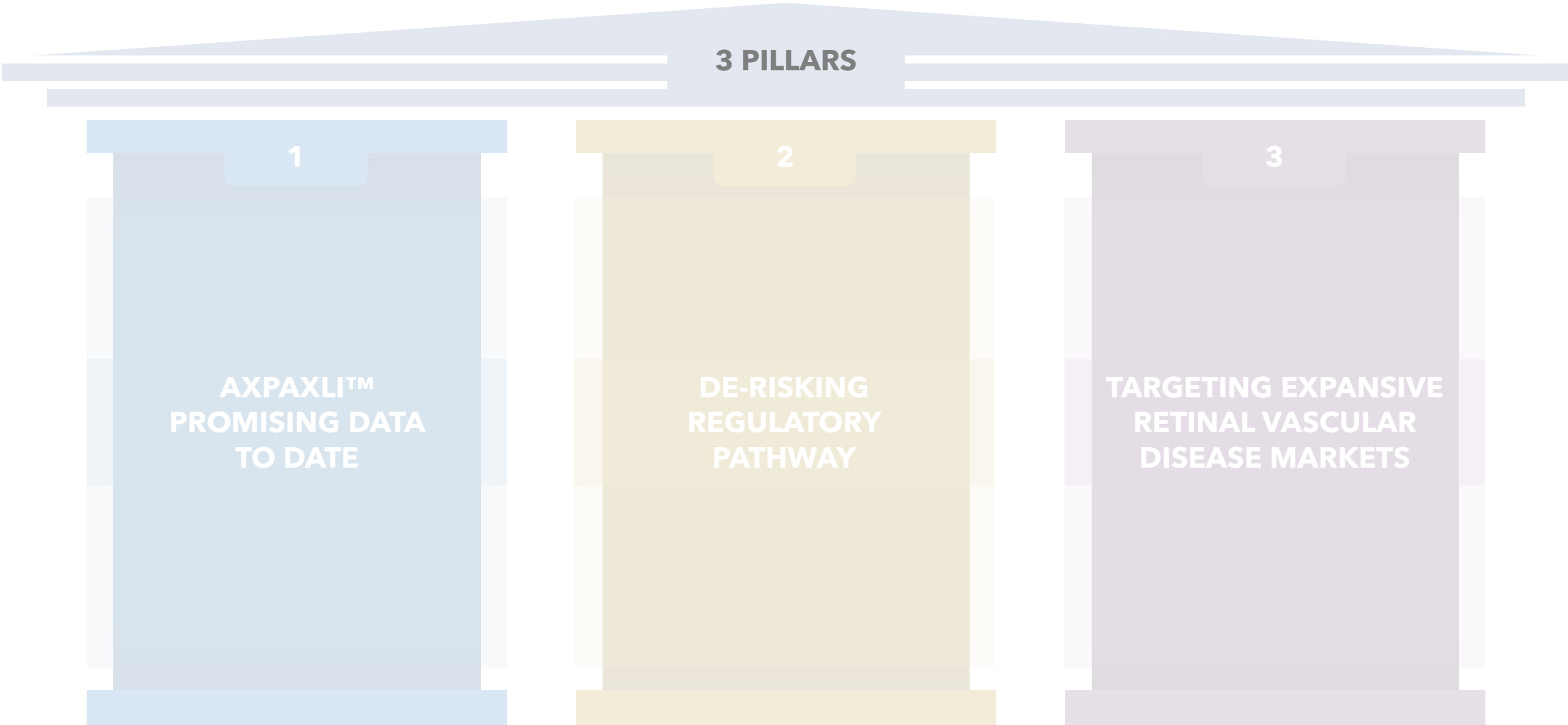
**Sub-optimal response to current VEGF-A focused options:** Precipitates the need for novel treatment approaches and/or mechanisms of action<sup>5</sup>



## THE AXPAXLI OPPORTUNITY

**Potential for improved long-term outcomes with a sustainable and non-pulsatile treatment, providing pan-VEGFR inhibition**

# Ocular Therapeutix: Transformation Into a Retina-focused Company



**WORLD CLASS RETINA EXPERTISE**

# World-class Team Focused on Achieving Our 3 Pillars



**Pravin U. Dugel, MD**  
*Executive Chairman,  
President & CEO*



**Jeffrey S. Heier, MD**  
*Chief Scientific Officer*



**Peter K. Kaiser, MD**  
*Chief Development  
Officer*



**Nadia K. Waheed,  
MD, MPH**  
*Chief Medical Officer*



**Donald Notman**  
*Chief Financial Officer*



**Peter Jarrett, PhD**  
*Chief Technical Officer*



**Sanjay Nayak, MBBS, PhD**  
*Chief Strategy Officer*



**Liansheng Zhu, PhD**  
*SVP, Biometrics*



**Namrata Saroj, OD**  
*Development Strategy  
Consultant*



**Andrea Gibson, PhD**  
*VP, Medical Director*



**Steve Meyers**  
*Chief Commercial Officer*



**Karen-Leigh Edwards,  
PhD, MBA**  
*Chief Operations Officer*



**Ying Wang, MD, PhD**  
*VP, Clinical Development*



**Bill Slattery, Jr.**  
*VP, Investor Relations*



**Tracy Smith**  
*VP, Human Resources*



**Philip Strassburger, Esq.**  
*General Counsel*



## What you'll hear today: IMPROVE VISION IN THE REAL WORLD

**"Dream Team"** has produced results  
in a very short time

Clinical trial strategy designed for  
**regulatory and commercial success**

Compelling AXPAXLI data in 3 studies demonstrated  
favorable **safety and durable activity**

## Today's Presenters



**Pravin U. Dugel, MD**

*Executive Chairman,  
President & CEO*



**Jeffrey S. Heier, MD**

*Chief Scientific Officer*



**Peter K. Kaiser, MD**

*Chief Development Officer*



**Nadia K. Waheed, MD, MPH**

*Chief Medical Officer*

## Retina KOLs



**Baruch D. Kuppermann, MD, PhD**

*Roger F. Steinert Professor, Chair, Department of  
Ophthalmology, and Director of the Gavin Herbert Eye  
Institute at the University of California, Irvine  
Irvine, CA*



**Dilsher S. Dhoot, MD**

*Retina Consultants of America (RCA)  
Valencia, CA*

# Ocular Therapeutix 2024 Investor Day Agenda

- **OCUL Overview**  
Pravin U. Dugel, MD
- **SOL-1 Overview & Enrollment**  
Jeffrey S. Heier, MD
- **SOL-1 Discussion**  
Moderator: Jeffrey S. Heier, MD
- **SOL-R: Repeat Dose Study Overview**  
Peter K. Kaiser, MD
- **SOL-R Discussion**  
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- **AXPAXLI in NPDR: HELIOS Update**  
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- **HELIOS / NPDR Discussion**  
Moderator: Nadia K. Waheed, MD, MPH
- **Summary & Takeaways**  
Pravin U. Dugel, MD
- **Audience Q&A**  
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# SOL-1 Overview & Enrollment

Jeffrey S. Heier, MD  
Chief Scientific Officer



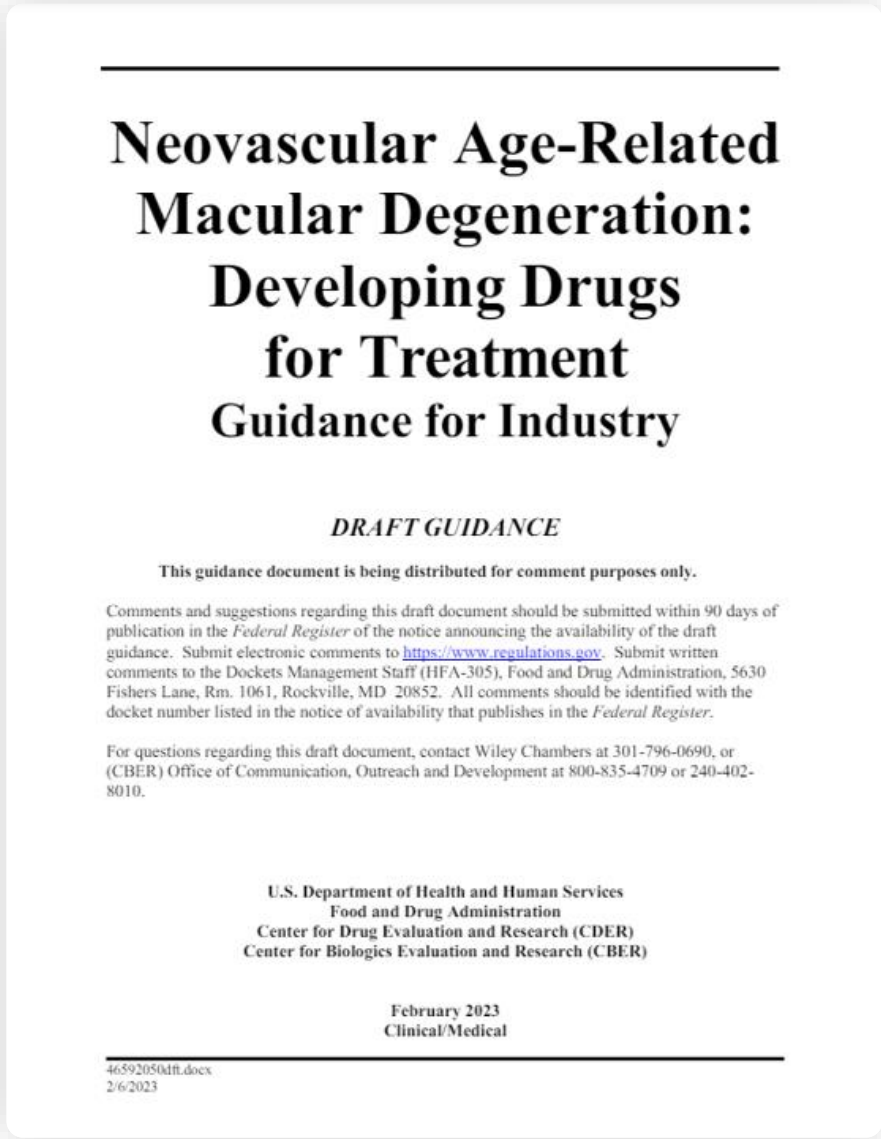
# SOL-1 Trial Timeline



2023

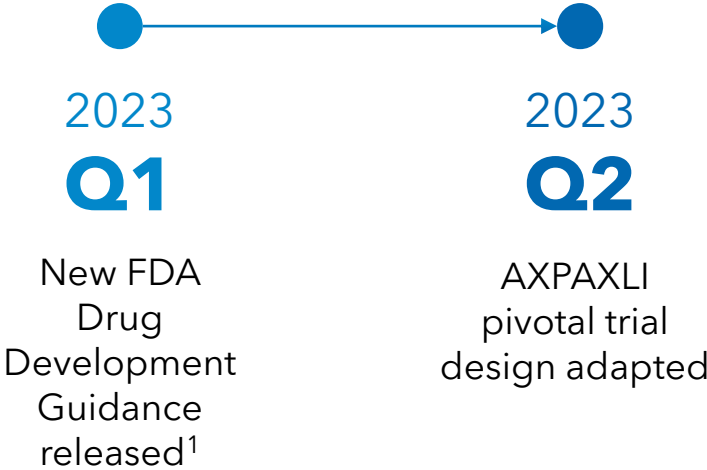
Q1

New FDA  
Drug  
Development  
Guidance  
released<sup>1</sup>



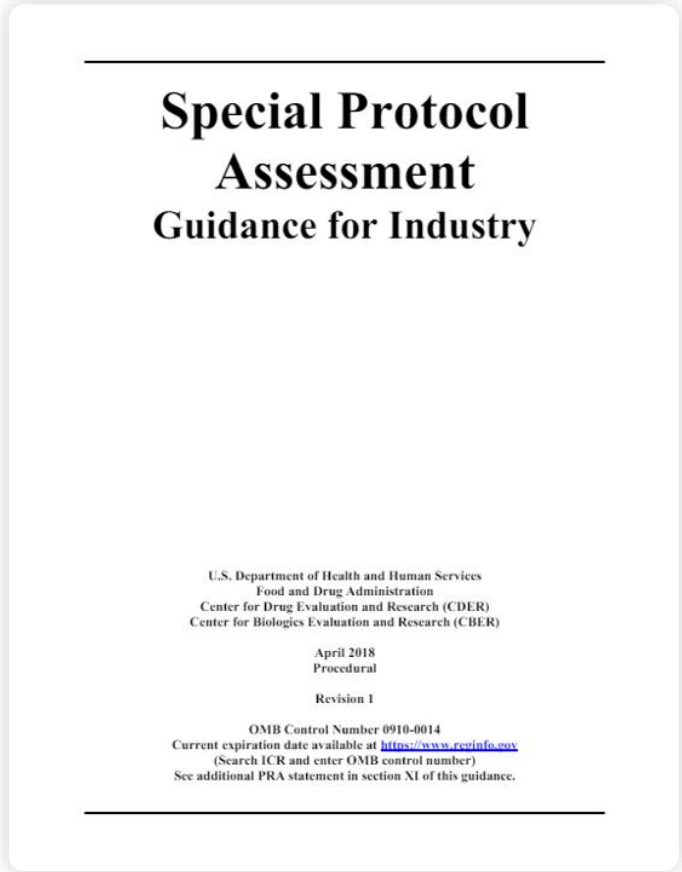
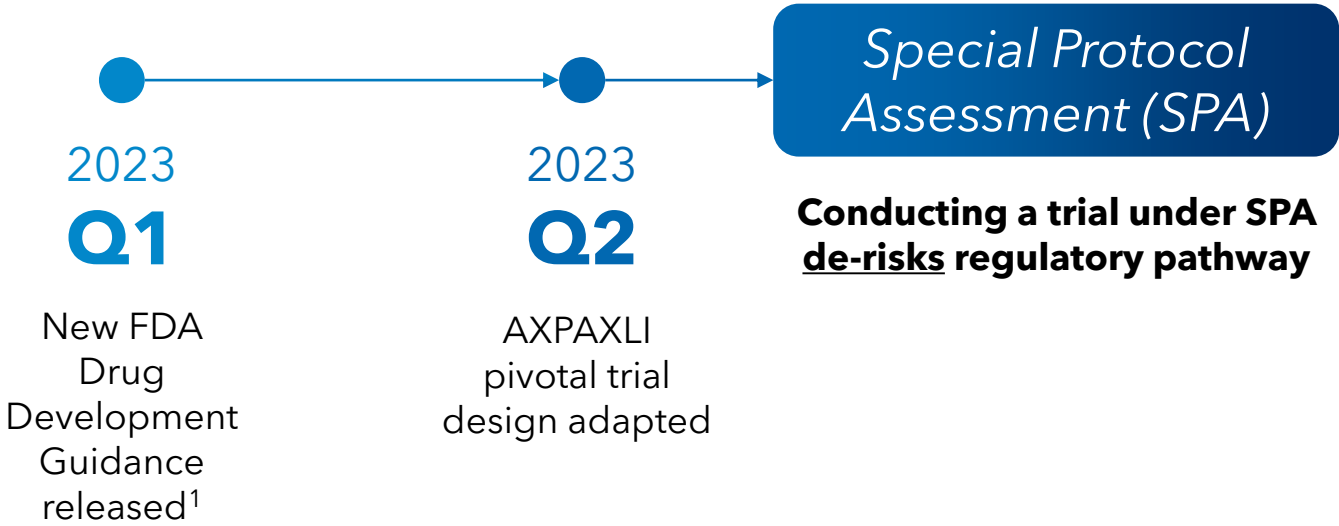
<sup>1</sup>. Neovascular Age-Related Macular Degeneration: Developing Drugs for Treatment Guidance for Industry. US Food and Drug Administration. Published February 6, 2023. Accessed September 21, 2023. <https://www.fda.gov/media/165606/download>.

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# Special Protocol Assessment

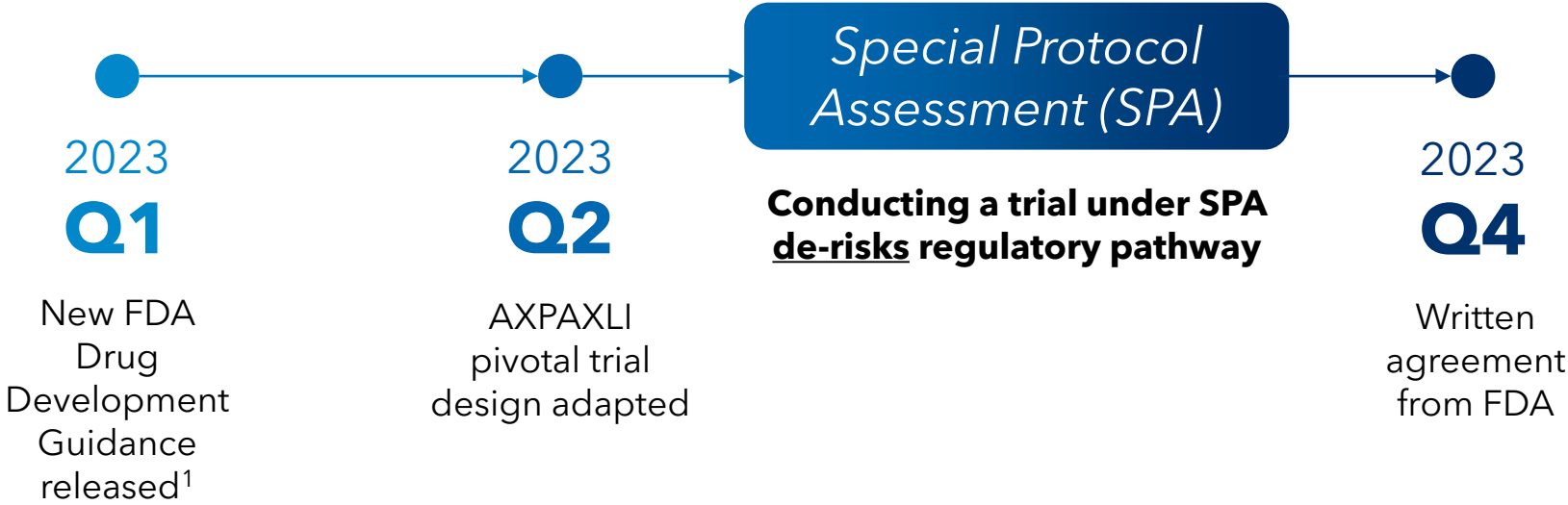
**Process in which sponsors meet with FDA  
and reach agreement on specific aspects of study design**

**Indicates concurrence by FDA with adequacy and acceptability  
of specific critical elements of protocol design**

**Adhering to covered protocol design ensures trial can be  
considered adequate and well-controlled**

**Describes the FDA's current thinking**

# SOL-1 Trial Timeline



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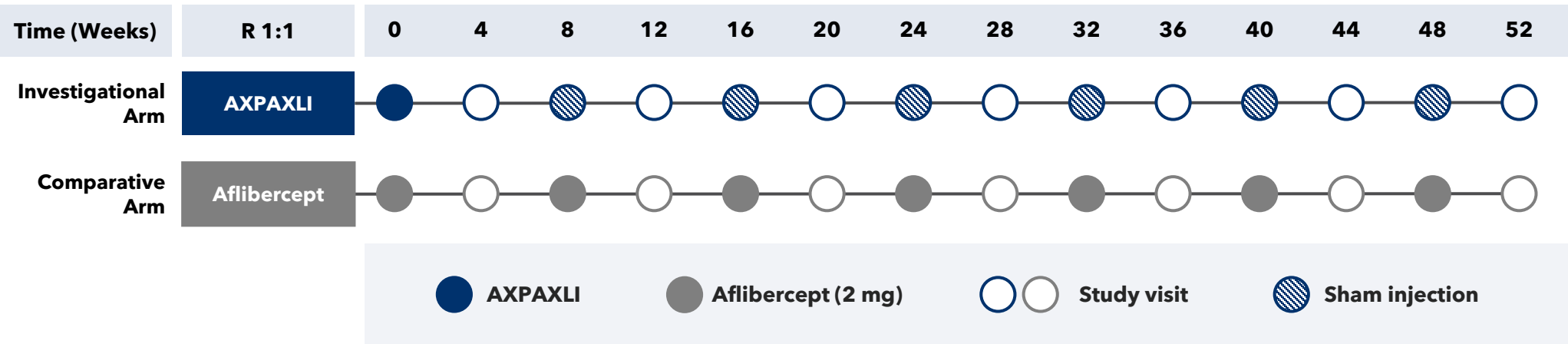
<sup>1</sup>. Neovascular Age-Related Macular Degeneration: Developing Drugs for Treatment Guidance for Industry. US Food and Drug Administration. Published February 6, 2023. Accessed September 21, 2023. <https://www.fda.gov/media/165606/download>.

# Wet AMD Non-inferiority Trials Using Sham Injections No Longer Recommended by the FDA

FDA recommends a comparative arm in which “dosing frequency, criterion for dosing adjustments and criterion for interventions are the same” as investigational arm<sup>1</sup>

## NON-INFERIORITY TRIAL DESIGN CHALLENGES

- Aflibercept Q8W arm has a different dosing frequency than AXPAXLI arm
- FDA does not recommend sham injections
- Saline injections are not acceptable to investigators and patients



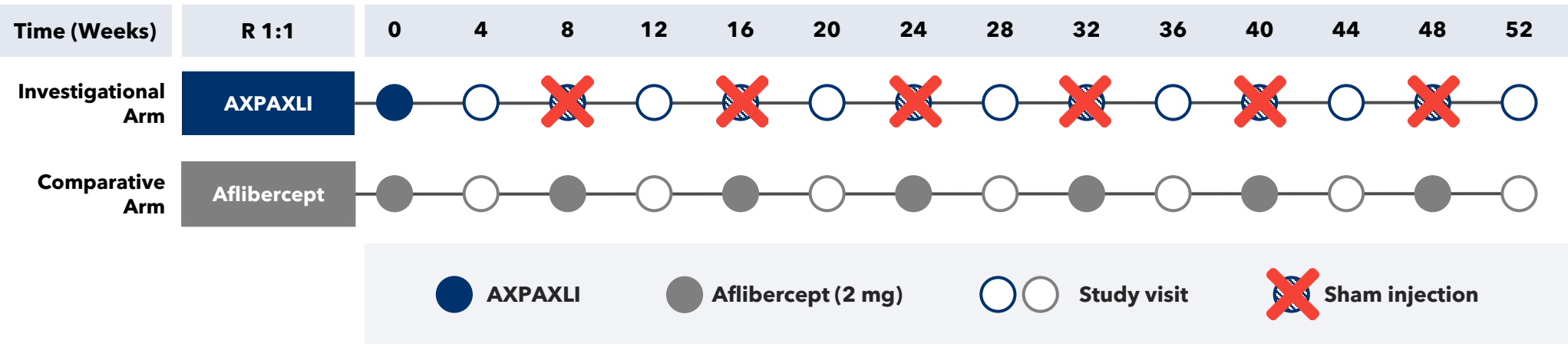
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# SOL-1 Trial Aligned with FDA Guidance


*Trial being conducted under a Special Protocol Assessment (SPA)*

## FDA GUIDANCE FOR WET AMD TRIALS

**One comparator arm should have the same dosing schedule** as the investigational drug<sup>1</sup>

**Sham injections are not recommended** due to inadequate masking<sup>2</sup>

## SOL-1 TRIAL DESIGN

 **Both study arms have the same dosing schedule**

 **No sham injections in either arm**

**Close collaboration with FDA resulted in a SPA, increasing optimism for SOL-1**

# Patient Safety Controls in SOL-1 Trial

**FDA RECOMMENDS ENDPOINTS DEMONSTRATING THE FOLLOWING FOR SUPERIORITY TRIALS<sup>1</sup>:**

**≥15-LETTER *DECREASE***

Statistically significant smaller % of patients with ≥15-letter decrease at 9 months or later

**≥15-LETTER *INCREASE***

Statistically significant greater % of patients with ≥15-letter increase at 9 months or later

**≥15-LETTER *DIFFERENCE***

Statistically significant difference between groups in mean BCVA of ≥15 letters at 9 months or later

# Patient Safety Controls in SOL-1 Trial

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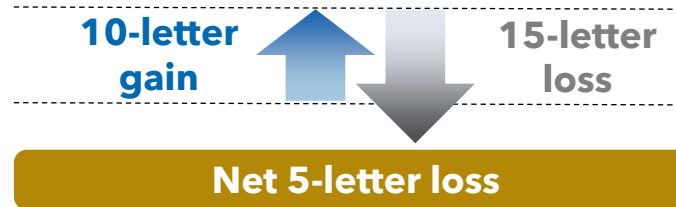
### ≥15-LETTER DIFFERENCE

Statistically significant difference between groups in mean BCVA of ≥15 letters at 9 months or later

## SAFETY OF STUDY PARTICIPANTS

Treatment-naïve subjects with baseline BCVA ≥20/80 (at screening), after aflibercept run-in period need to demonstrate at Day 1:

BCVA of 20/20 OR **Gain** at least **10 letters from baseline**



Design allows investigator intervention after **one event** of 15-letter loss

Independent Medical Monitors (Retina Specialists) available for consultation if earlier rescue needed

Aflibercept provided for study eye rescue; monthly follow-up with option to treat per investigator discretion



# SOL-1: AXPAXLI Pivotal Clinical Trial in Treatment-Naïve Wet AMD



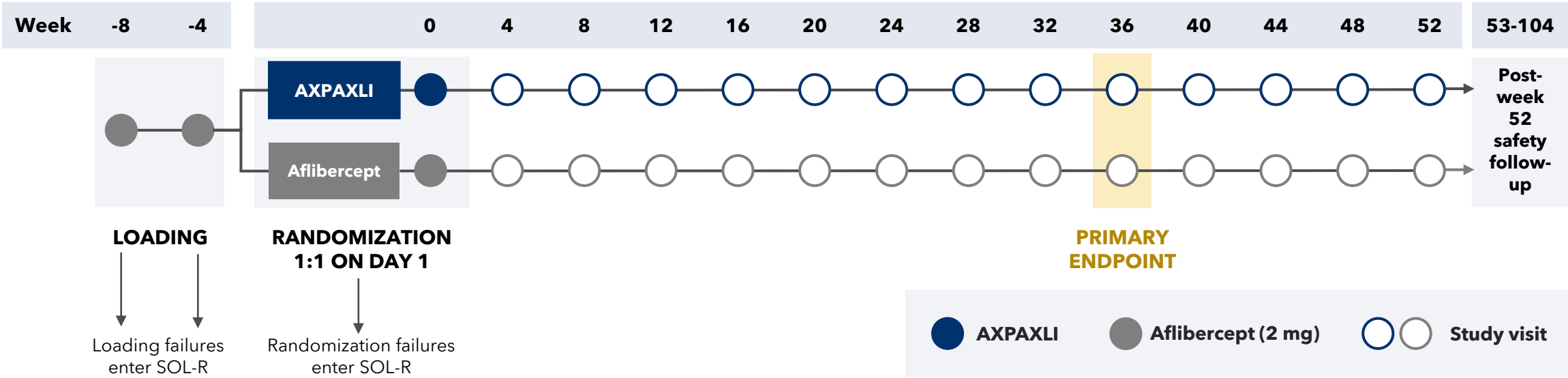
**MULTI-CENTER, DOUBLE-MASKED, RANDOMIZED, PARALLEL-GROUP TRIAL**

## DESIGN

Two arm trial with  
~150 subjects per group

## PRIMARY ENDPOINT (36 WEEKS)

Proportion of subjects who maintained visual acuity, defined as <15 ETDRS letters of BCVA loss at Week 36



AMD (Age-related macular degeneration); BCVA (Best-corrected visual acuity); ETDRS (Early Treatment Diabetic Retinopathy Study).

# SOL-1 Study Endpoints

## Secondary Endpoints

### KEY SECONDARY ENDPOINTS

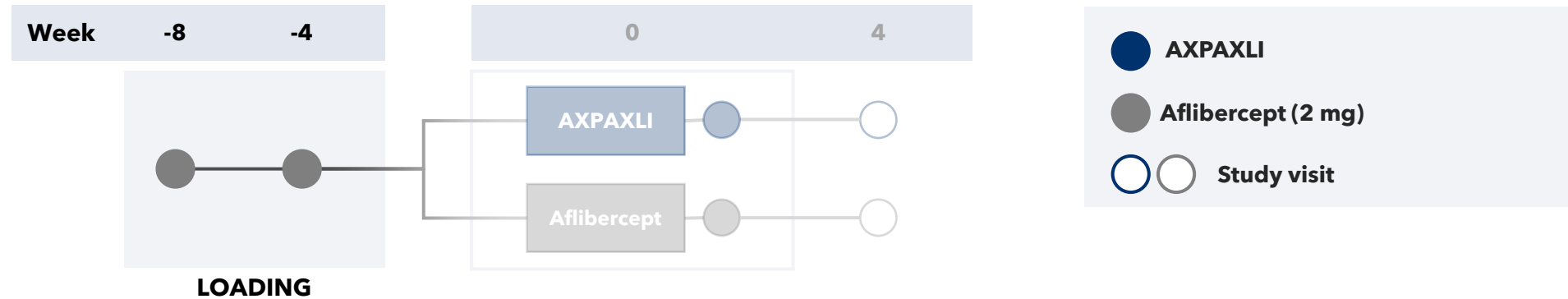
- 1 Proportion of subjects who maintained visual acuity\*** with one rescue injection or fewer at Weeks 36 and 52
- 2 Proportion of subjects who maintained visual acuity\*** at Week 52
- 3 BCVA change from baseline** at Weeks 36 and 52

### OTHER SECONDARY ENDPOINTS

- 1 CSFT changes from baseline** at Weeks 36 and 52
- 2 Number of rescue injections** from baseline up to Weeks 36 and 52
- 3 Mean time to the first rescue injection**
- 4 Proportion of subjects who gain  $\geq 15$  letters** at Weeks 36 and 52
- 5 Proportion of subjects who lose  $\geq 10$  letters** at Weeks 36 and 52

# SOL-1 Eligibility and Enrollment Criteria

## Key Inclusion Criteria

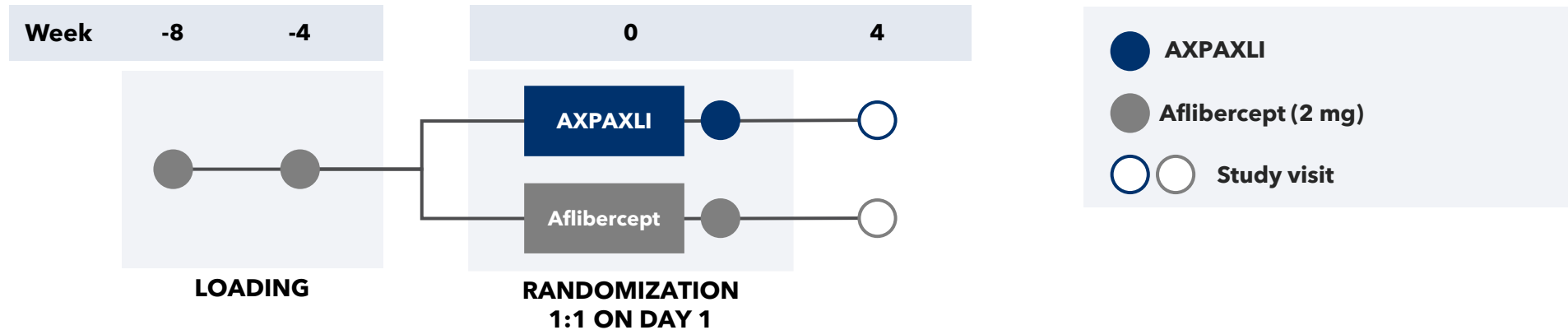


## ENROLLMENT CRITERIA AT WEEK -8

- 1 Treatment naïve wet AMD
- 2 **BCVA of  $\geq 54$  ETDRS letters**  
(20/80 Snellen equivalent)
- 3 CSFT of  $\leq 500$   $\mu\text{m}$  in study eye

# SOL-1 Eligibility and Enrollment Criteria

## Key Inclusion Criteria



### ENROLLMENT CRITERIA AT WEEK -8

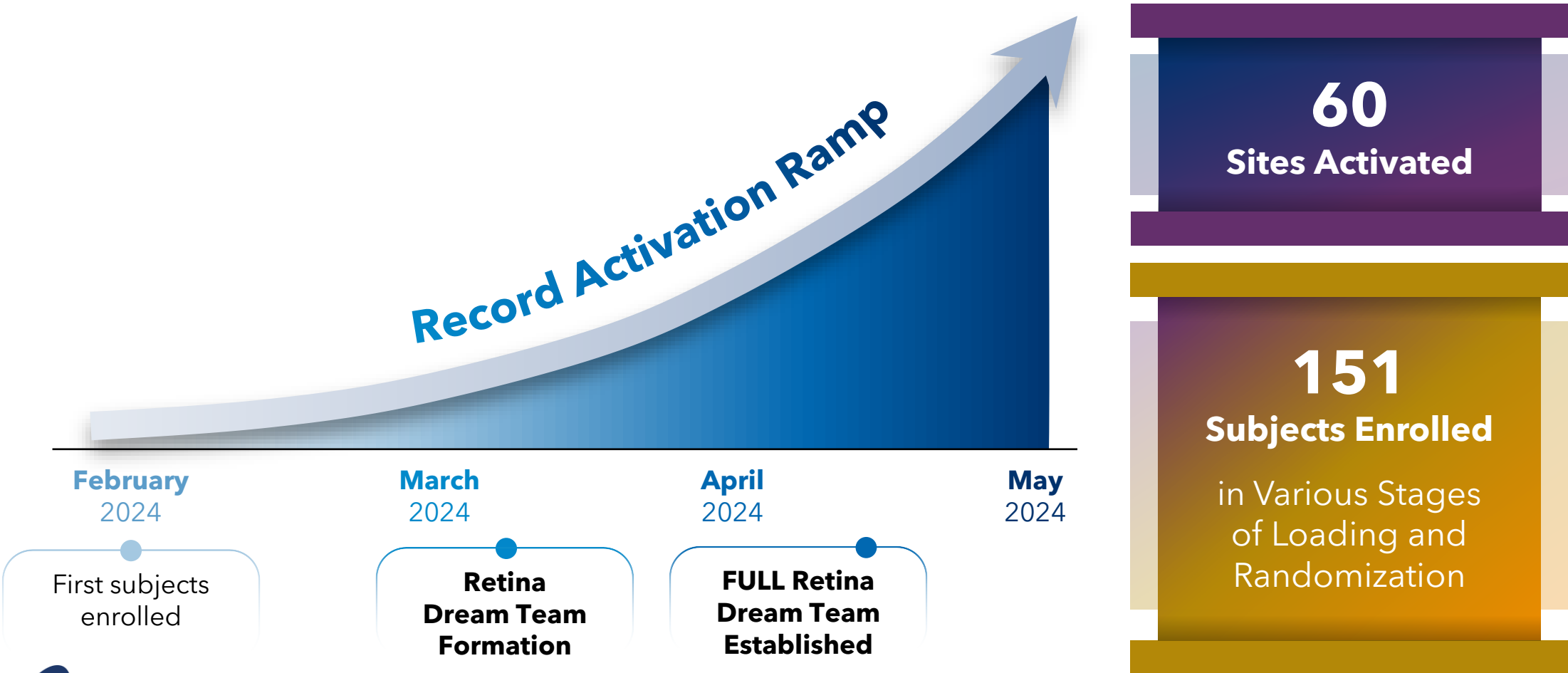
- 1 Treatment naïve wet AMD
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(20/80 Snellen equivalent)
- 3 CSFT of  $\leq 500$   $\mu\text{m}$  in study eye

### RANDOMIZATION CRITERIA AT DAY 1

- 1 **BCVA gain of  $\geq 10$  ETDRS letters**  
**- OR -**  
**BCVA of  $\geq 84$  ETDRS letters**  
(20/20 Snellen equivalent)
- 2 CSFT of  $\leq 350$   $\mu\text{m}$  in study eye

# Rapid Acceleration in SOL-1 Trial Enrollment<sup>1</sup>

Exceptional enrollment rate achieved due to strong collaboration with engaged and committed investigators



<sup>1</sup>. Enrollment rate and activation ramp relative to recent wet AMD studies; Ocular Therapeutix data on file as of June 7, 2024.

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# **SOL-1 Discussion**

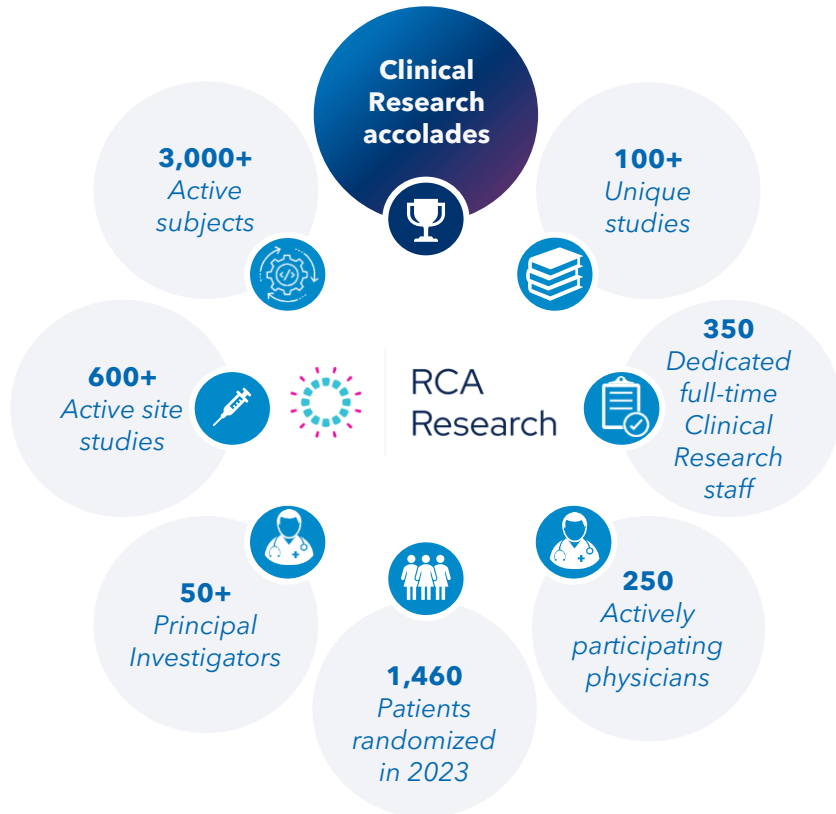
Moderator: Jeffrey S. Heier, MD  
Chief Scientific Officer



# RCA Clinical Research Highlights

RCA is the largest clinical research network in the US dedicated to retina

## #1 RETINA RESEARCH NETWORK



## RCA RESEARCH CENTRALIZED SUPPORT



RCA is leading clinical trial innovation in ophthalmology, including participation in almost all retina clinical trials, with consistently high enrollment in clinical trials



Centralization of key components of research ecosystem including Business Development, Budgeting and Contracting, Regulatory Start Up, Quality Assurance, Accounting



Standardization of SOPs, QA Oversight, Job Descriptions, Training, Space Design, Equipment



All RCA practices are on common CTMS (RealTime), allowing clean and efficient financial reporting

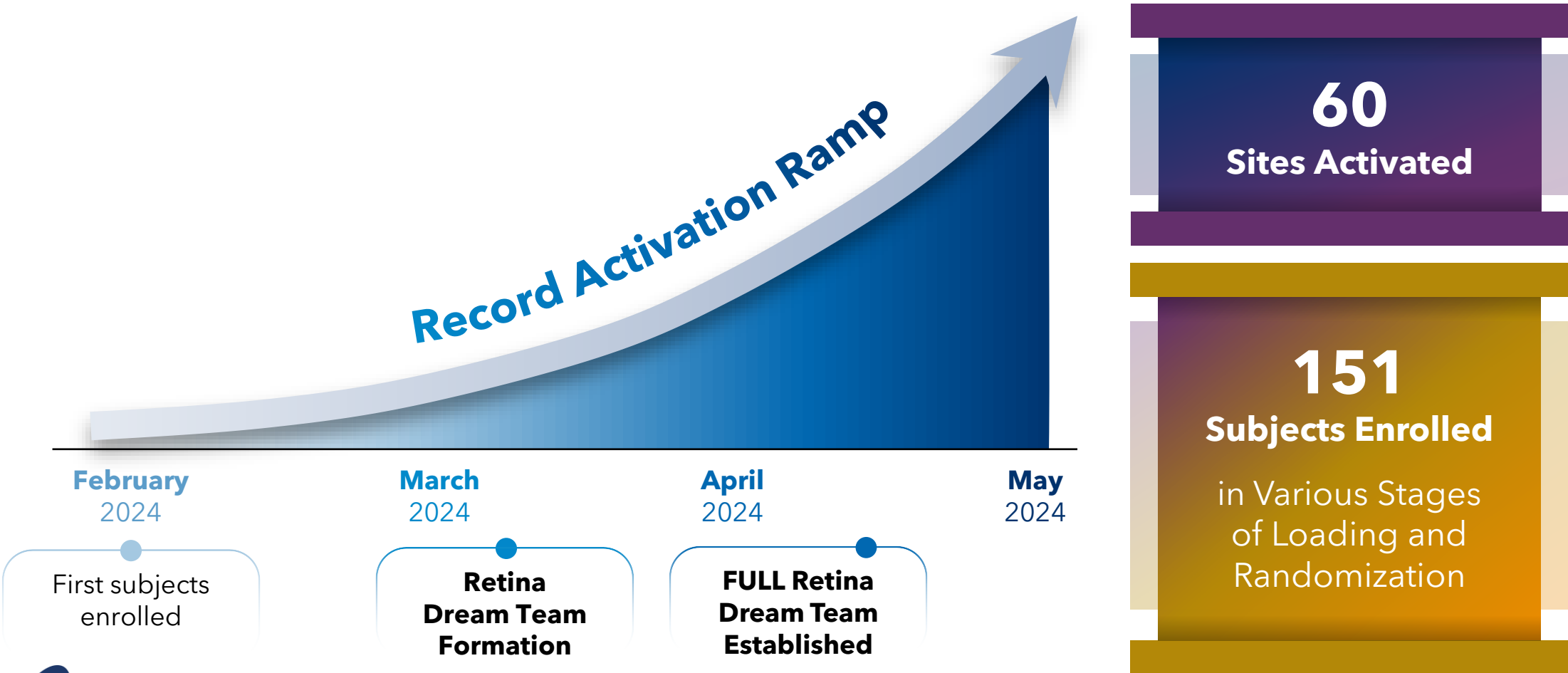


Data capabilities, including centralized EMR data, imaging data and treatment data, allow RCA to conduct retrospective research on an unparalleled level



# Rapid Acceleration in SOL-1 Trial Enrollment<sup>1</sup>

Exceptional enrollment rate achieved due to strong collaboration with engaged and committed investigators



<sup>1</sup>. Enrollment rate and activation ramp relative to recent wet AMD studies; Ocular Therapeutix data on file as of June 7, 2024.

# Ocular Therapeutix 2024 Investor Day Agenda

- **OCUL Overview**  
Pravin U. Dugel, MD
- **SOL-1 Overview & Enrollment**  
Jeffrey S. Heier, MD
- **SOL-1 Discussion**  
Moderator: Jeffrey S. Heier, MD
- **SOL-R: Repeat Dose Study Overview**  
Peter K. Kaiser, MD
- **SOL-R Discussion**  
Moderator: Peter K. Kaiser, MD
- **AXPAXLI in NPDR: HELIOS Update**  
Nadia K. Waheed, MD, MPH
- **HELIOS / NPDR Discussion**  
Moderator: Nadia K. Waheed, MD, MPH
- **Summary & Takeaways**  
Pravin U. Dugel, MD
- **Audience Q&A**  
ALL

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# SOL-R: Repeat Dose Study Overview

Peter K. Kaiser, MD  
Chief Development Officer



# AXPAXLI: Sustained Release Axitinib in Hydrogel

## Single Intravitreal Bioresorbable Implant

### AXITINIB

Multi-target  
Tyrosine Kinase  
Inhibitor



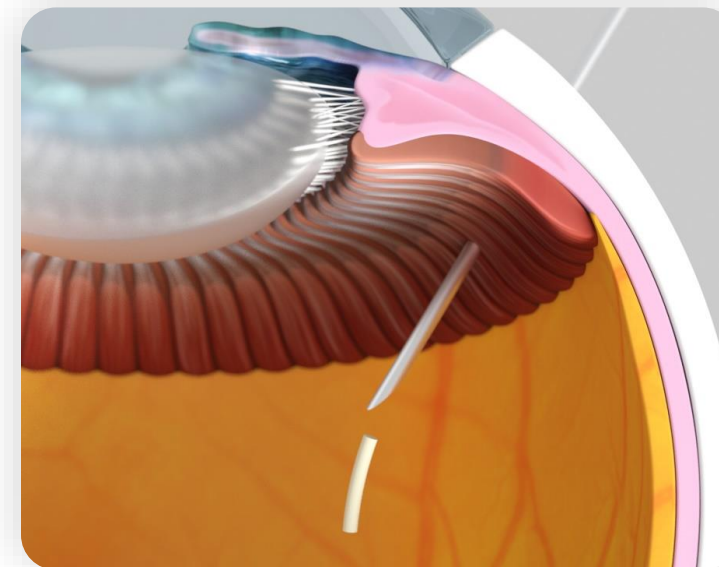
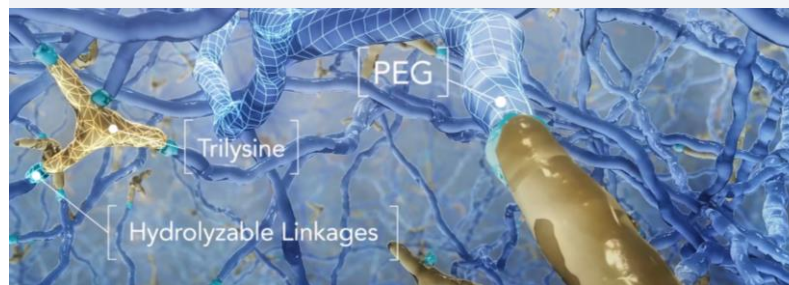
### ELUTYX™ TECHNOLOGY

Bioresorbable,  
Targeted, Sustained  
Drug Delivery

Axitinib is a highly selective inhibitor of all VEGF and PDGF receptors with high affinity and low solubility compared to other ocular TKIs<sup>1</sup>

Drug	Inhibitory Concentrations for VEGFR2/KDR (IC <sub>50</sub> in nM) (lower values indicate higher affinity)
<b>Axitinib<sup>2</sup></b>	<b>0.2</b>
Sunitinib <sup>3</sup>	40
Vorolanib <sup>3</sup>	64

OTX's proprietary bioresorbable polymer matrix, is a hydrogel-based, versatile, biocompatible platform for localized sustained drug delivery



Completely bioresorbable over 9-12 months

Administered by a 25G needle

Covered by a US Patent that expires 2041<sup>4</sup>

# SOL-1 vs. SOL-R



**SOL-1**

**Designed for:  
Regulatory Approval**

**SOL-R**

**Designed for:  
Commercial Impact**

## Expectations for SOL-R

**SOL-R will be  
initiated at  
regulatory risk**

**We believe SOL-R  
trial design has  
low clinical risk**

# SOL-R Phase 3 Wet AMD Study Design

**SOL** MULTI-CENTER, DOUBLE-MASKED, RANDOMIZED, PARALLEL-GROUP TRIAL

## PURPOSE

**Demonstrate that AXPAXLI Q6M is non-inferior to fixed-dose aflibercept 2 mg Q8W**

## DESIGN

**Three-arm trial** with 825 total subjects conducted **at regulatory risk<sup>1</sup>**

## OUTCOME MEASURES (48 WEEKS)

**PRIMARY ENDPOINT:** Mean BCVA change from baseline

**SECONDARY ENDPOINT:** Proportion of subjects receiving rescue therapy

**SECONDARY ENDPOINT:** Mean CSFT change from baseline

# SOL-R Phase 3 Wet AMD Study Design

**SOL** MULTI-CENTER, DOUBLE-MASKED, RANDOMIZED, PARALLEL-GROUP TRIAL

## KEY INCLUSION CRITERIA

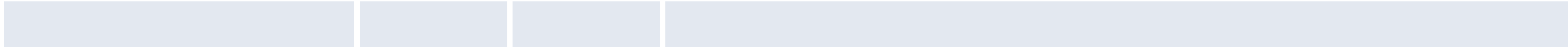
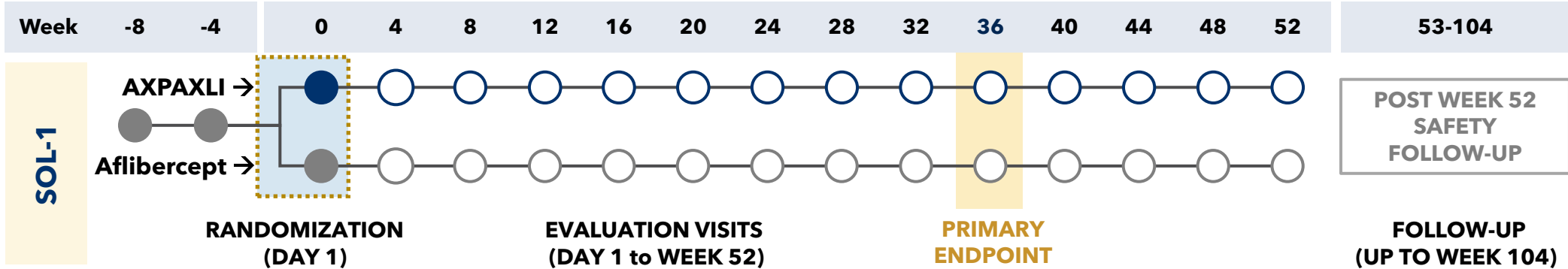
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- 1 Treatment naïve wet AMD  
- OR -  
Diagnosed and treated within 3 months prior to enrollment
- 2 Loading or randomization failure in SOL-1
  - Once SOL-1 is fully randomized, SOL-R to enroll similar wet AMD patients, including from other sites



# SOL-R Phase 3 Wet AMD Study Design

Capturing SOL-1 Loading and Randomization Failures Into SOL-R

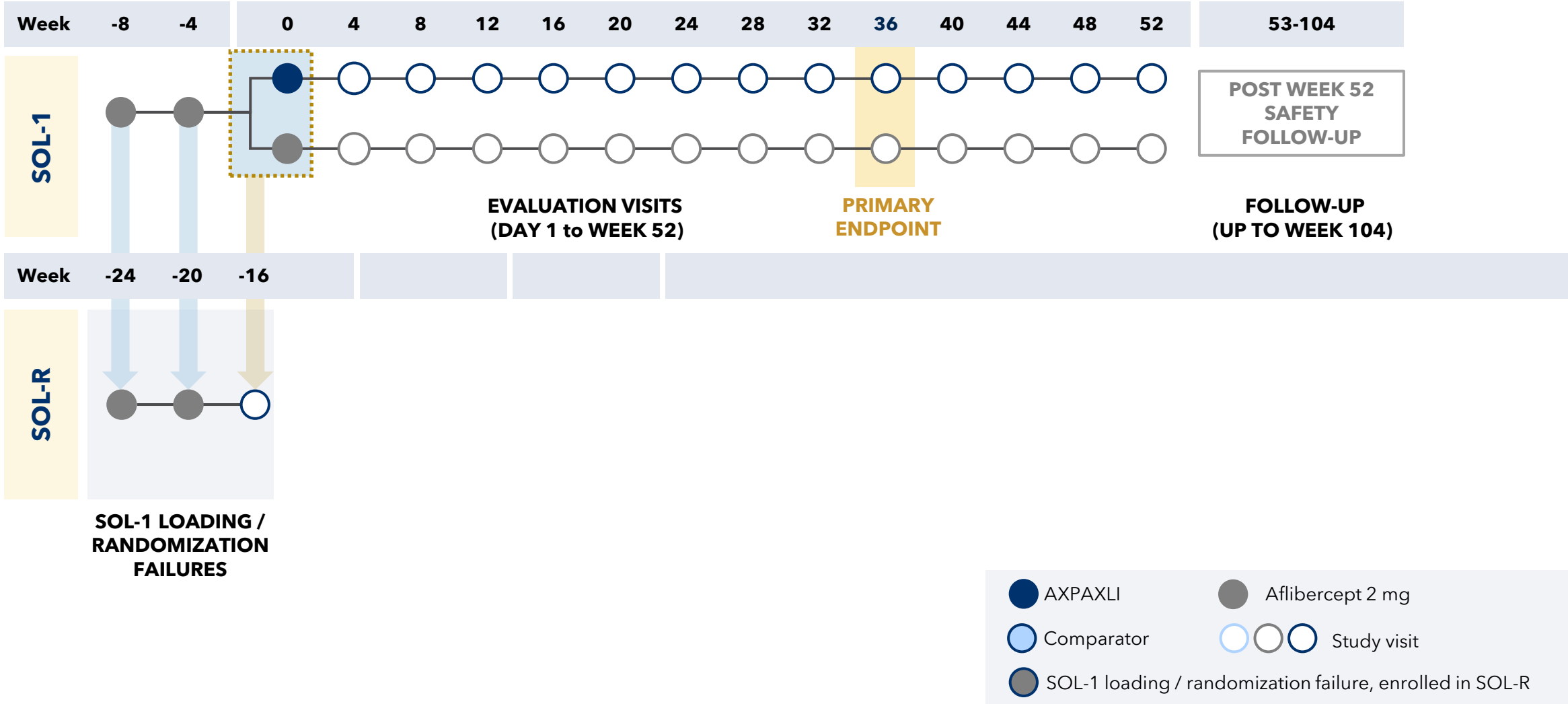


**SOL-R**

- AXPAXLI
- Aflibercept 2 mg
- Comparator
- ○ ○ Study visit
- SOL-1 loading / randomization failure, enrolled in SOL-R

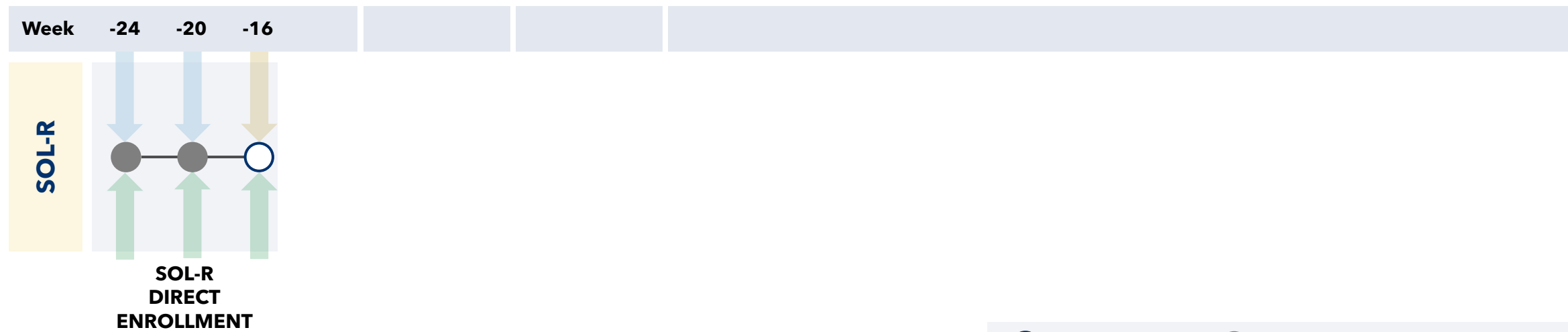
# SOL-R Phase 3 Wet AMD Study Design

Capturing SOL-1 Loading and Randomization Failures Into SOL-R



# SOL-R Phase 3 Wet AMD Study Design

Enriching Patient Enrollment<sup>1</sup>



- AXPAXLI
- Aflibercept 2 mg
- Comparator
- SOL-1 loading / randomization failure or direct enroll
- Study visit



1. Enriching patient enrollment through multiple loading doses and limiting retinal fluid fluctuations.

# SOL-R Phase 3 Wet AMD Study Design

Enriching Patient Enrollment<sup>1</sup>



- AXPAXLI
- Aflibercept 2 mg
- Comparator
- SOL-1 loading / randomization failure or direct enroll
- Study visit



1. Enriching patient enrollment through multiple loading doses and limiting retinal fluid fluctuations.

# SOL-R Phase 3 Wet AMD Study Design

*Robust Loading Dose Before Randomization*

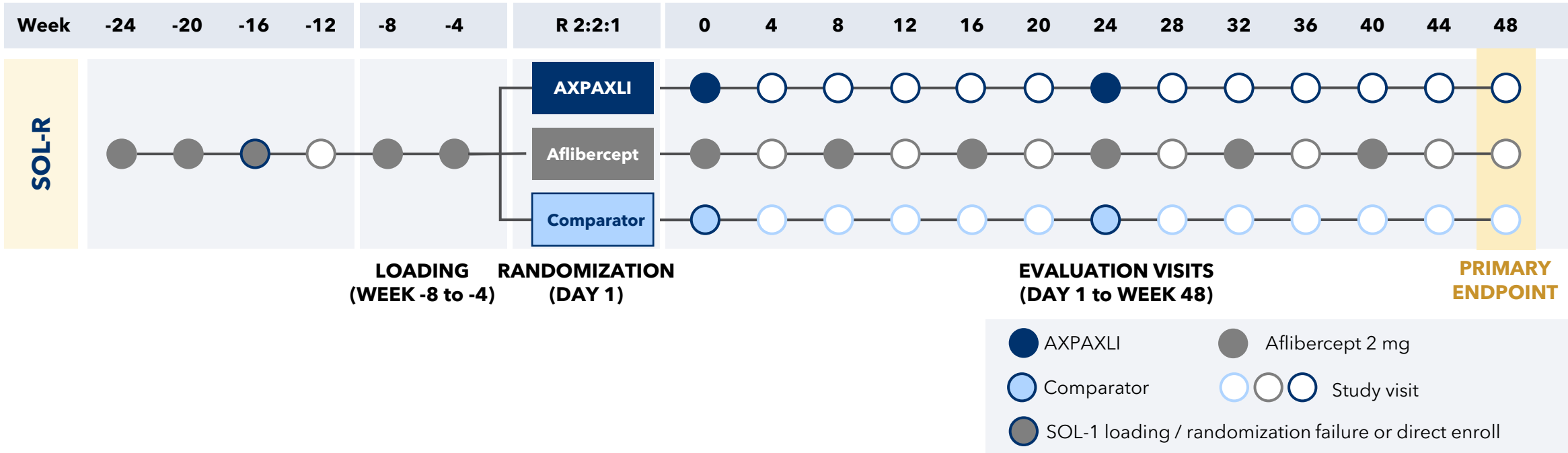


- AXPAXLI
- Aflibercept 2 mg
- Comparator
- Study visit
- SOL-1 loading / randomization failure or direct enroll

# SOL-R Phase 3 Wet AMD Study Design

## THE PRIMARY OBJECTIVE

Demonstrate that AXPAXLI is non-inferior to fixed-dose aflibercept 2 mg with respect to mean change in BCVA at Week 48 from baseline in wAMD patients



AMD (Age-related macular degeneration); BCVA (Best-corrected visual acuity).  
Data on file.

# SOL-R Follows Ph. 1 US Study Paradigm, with ENRICHED Patient Population



## US TRIAL

Multi-center, Randomized, Double-Masked, Controlled Trial in 20 Patients (3:1)

**Visual Acuity & OCT Findings Comparable to SOC Eylea**

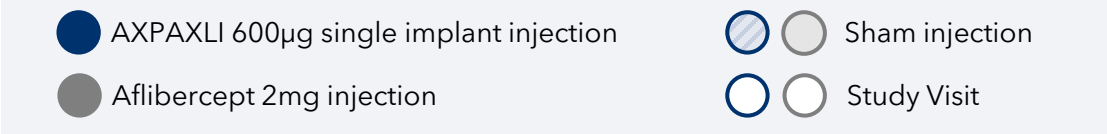
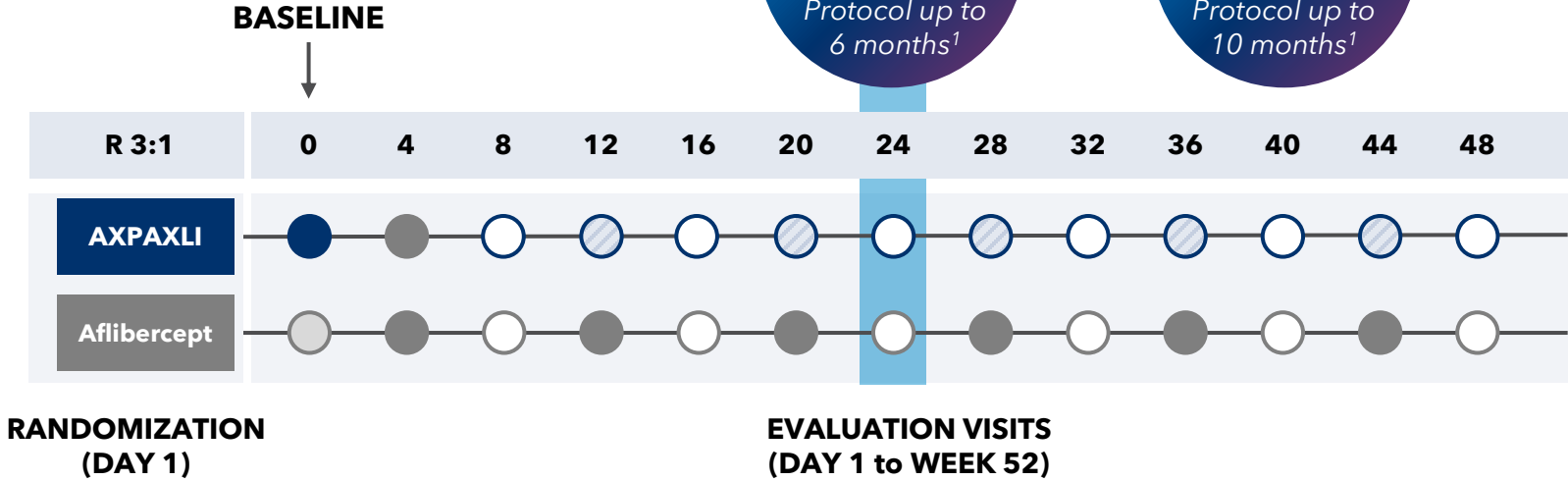
**100%**  
Rescue Free Per Protocol up to 6 months<sup>1</sup>

**80%**  
Rescue Free Per Protocol up to 10 months<sup>1</sup>

**Screening**

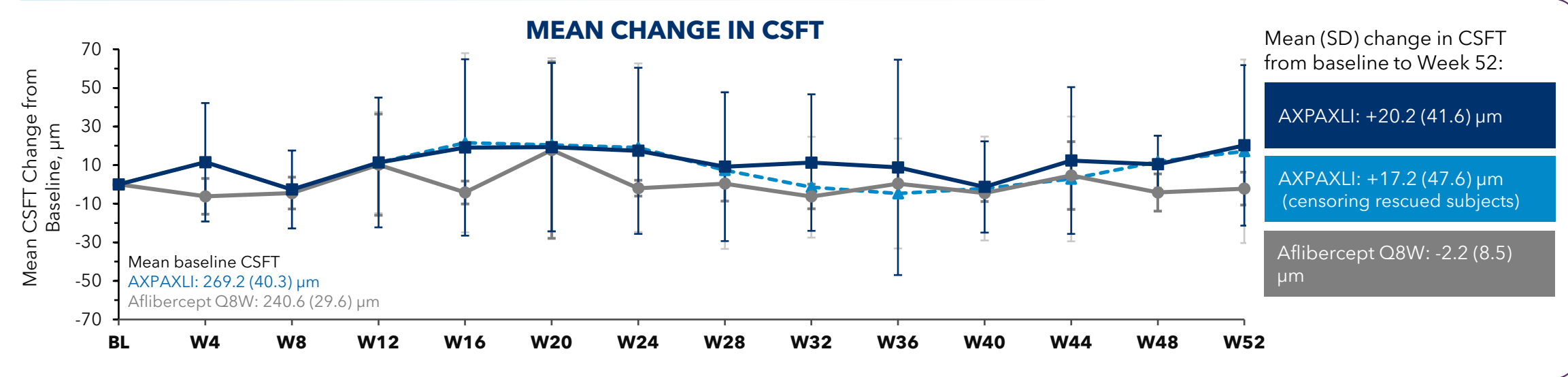
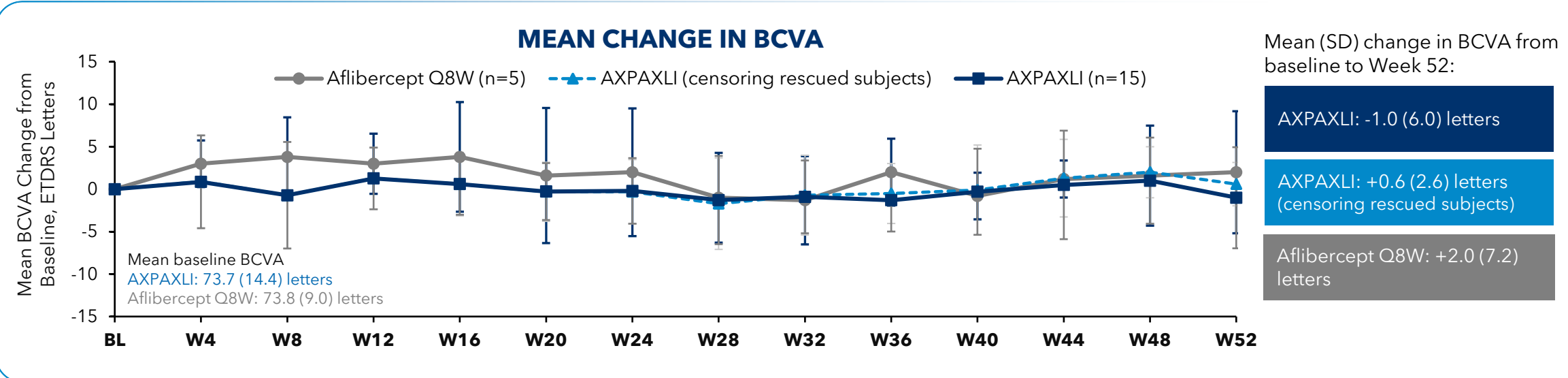
**KEY INCLUSION CRITERIA**

- Subfoveal neovascularization secondary to AMD
- Previously treated with anti-VEGF injections
- Controlled fluid



AMD (Age-related macular degeneration); OCT (Optical coherence tomography); SOC (Standard of care).  
 1. Ocular Therapeutix, Inc. Study to Evaluate the Efficacy and Safety of Intravitreal OTX-TKI (Ocular Therapeutix) (Axitinib Implant) in Subjects With Neovascular Age-Related Macular Degeneration. ClinicalTrials.gov identifier: NCT06223958. Updated February 13, 2024. Accessed May 28, 2024. Previous reported numbers (80% at 6 months, 73% at 10 months) include investigator discretion rescues.

# US Ph. 1: AXPAXLI BCVA, CSFT Results Comparable to Aflibercept Q8W





# Significance of SOL-R and Patient Impact

*Final SOL-R Study Design Pending Type C Meeting Feedback*

## INCREASE SOL-1 ENROLLMENT

**SOL-R captures patients** who fail loading or randomization in SOL-1, reducing barriers for investigators and patients

## SOL-R STUDY POPULATION

**SOL-R enrolls early-stage enriched population**, after robust aflibercept loading, with study design following US Phase 1 study paradigm

## HISTORICAL COMPARATOR

Non-inferiority study design with **historical comparator arm** (Eylea® Q8W) being initiated at regulatory risk

## REPEAT DOSING LABEL

SOL-R serves as a **safety study for Q6 months repeat dosing** with AXPAXLI

# SOL Program



**SOL-1**

**Designed for:  
Regulatory Approval**

**SOL-R**

**Designed for:  
Commercial Impact**

**Current SOL-1 loading or randomization failures lower than anticipated;  
most patients for SOL-R expected to be enrolled outside of SOL-1<sup>1</sup>**

1. Once SOL-1 is fully randomized, SOL-R to enroll similar wet AMD patients, including from other sites.

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Pravin U. Dugel, MD
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ALL

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# **SOL-R Discussion**

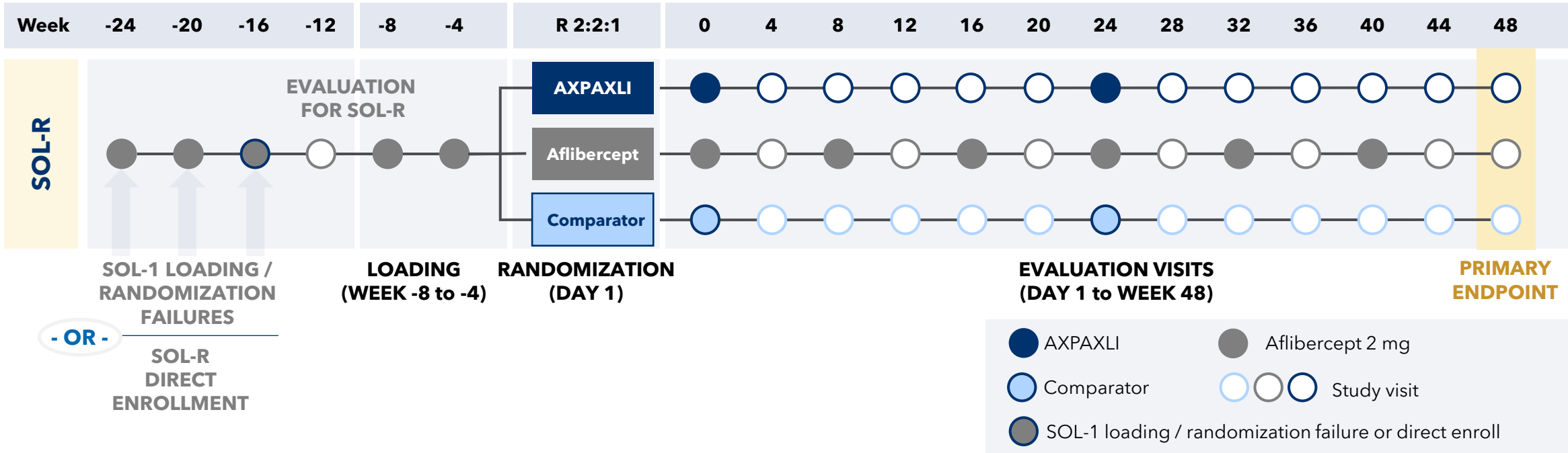
Moderator: Peter K. Kaiser, MD  
Chief Development Officer



# SOL-R Phase 3 Wet AMD Study Design

## THE PRIMARY OBJECTIVE

Demonstrate that AXPAXLI is non-inferior to fixed-dose aflibercept 2 mg with respect to mean change in BCVA at Week 48 from baseline in wAMD patients



AMD (Age-related macular degeneration); BCVA (Best-corrected visual acuity).  
Data on file.

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Nadia K. Waheed, MD, MPH

- **HELIOS / NPDR Discussion**

Moderator: Nadia K. Waheed, MD, MPH

- **Summary & Takeaways**

Pravin U. Dugel, MD

- **Audience Q&A**

ALL

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# **AXPAXLI in NPDR: HELIOS Update**

Nadia K. Waheed, MD, MPH  
Chief Medical Officer



# Potential Market Opportunity for DR is Large and Unrealized



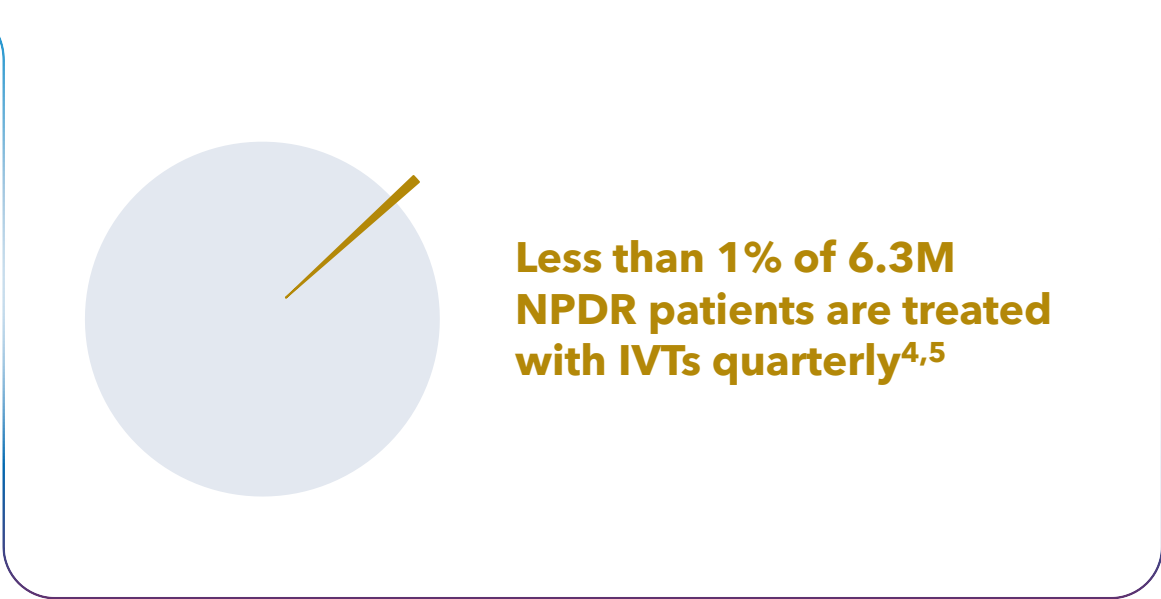
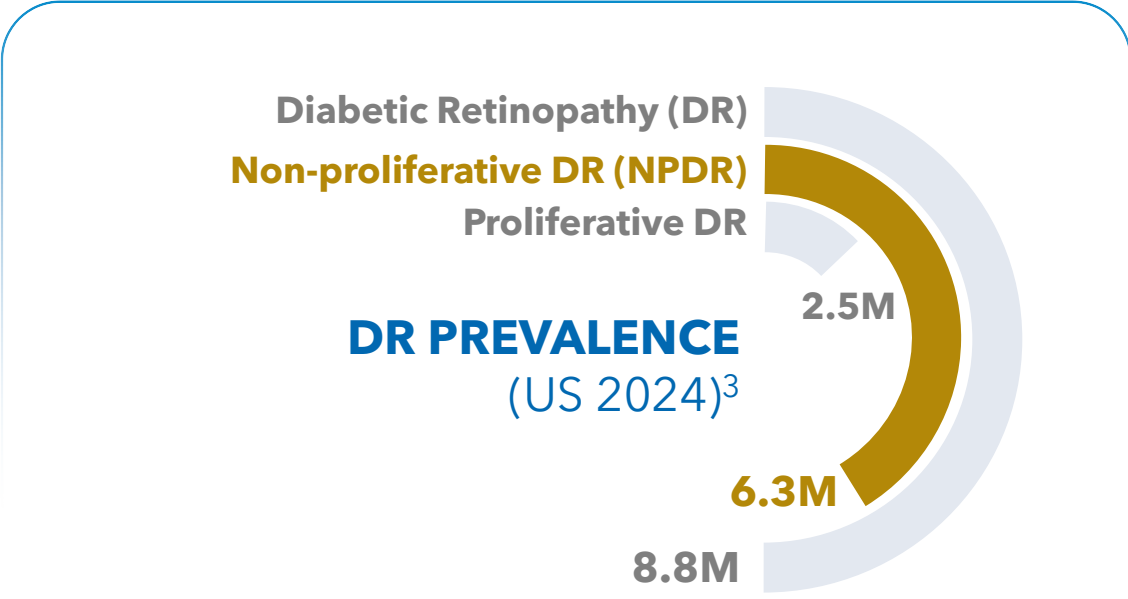
Diabetic retinopathy (DR) is the leading cause of blindness in the working-age population<sup>1</sup>



Increasing prevalence of diabetes expected to drive future opportunity<sup>2</sup>

In **Diabetic Retinopathy**, there is a need for early intervention with a longer lasting therapy

Utilization of anti-VEGFs to treat non-proliferative DR (NPDR) is low due to high treatment burden



1. Mohamed Q, et al. *JAMA*. 2007;298(8):902-916. 2. Rowley WR et al. *Popul Health Manag*. 2017 Feb;20(1):6-12. 3. Market Scope. 2023 Retinal Pharmaceuticals Market Report. 4. Market Scope. 2022 Retinal Pharmaceuticals Market Report: Global Analysis for 2021 to 2027. Published August 2022. 5. Market Scope. US Retina Quarterly Update: Q2 2022 Analysis of Historical Trends and Latest Developments. Published August 2022.



# DR is Chronic, Progressive, and Burdensome With a Need for Earlier Treatment to Prevent Progression



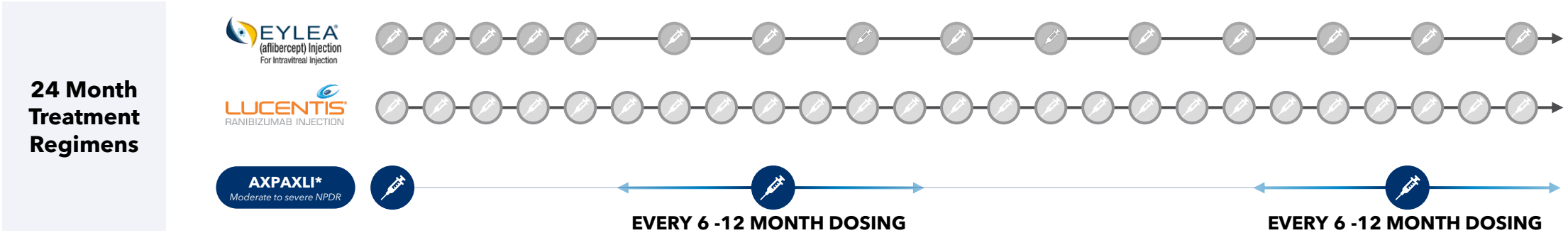
## APPROVED TREATMENT PARADOX

**No established standard of care** for NPDR (mainly observation)

- Anti-VEGFs approved in NPDR, but rarely used due to frequent injections

**Earlier intervention could treat NPDR and prevent progression** to severe/vision-threatening disease

## AXPAXLI POTENTIAL VS APPROVED TREATMENTS

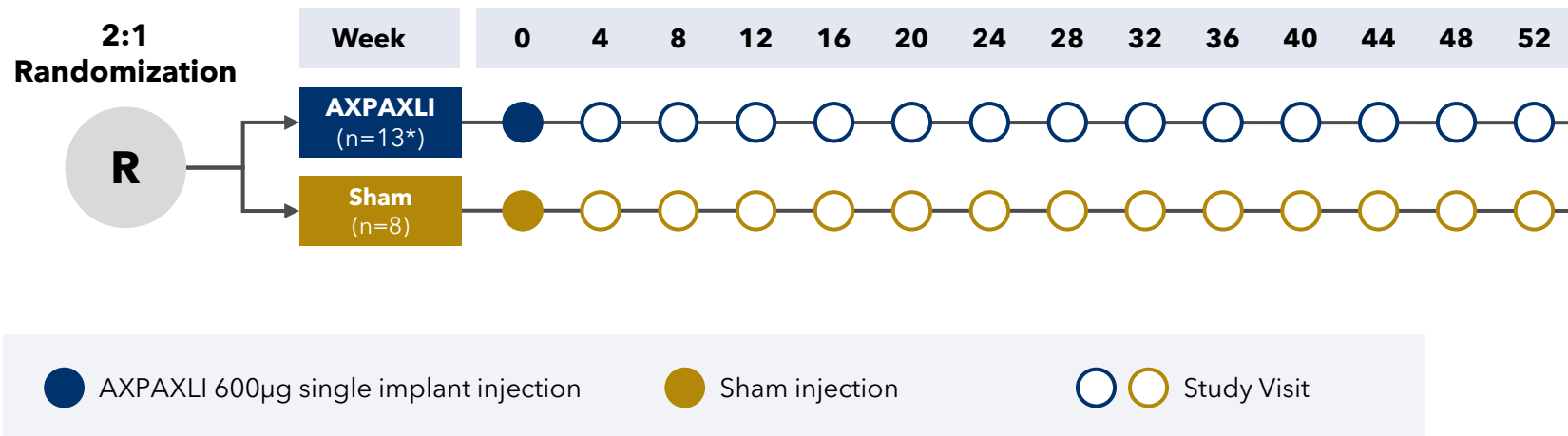


\*per planned protocol dosing  
 NPDR (Non-proliferative diabetic retinopathy); VEGF (Vascular endothelial growth factor); PDR (Proliferative diabetic retinopathy).  
 Eye care of the patient with diabetes mellitus. American Optometric Association, Second Edition; Market Scope - 2022 Retinal Pharmaceuticals Market Report, Global Analysis 2021-2027; Market Scope Q2-2022 US Retina Quarterly Update; AAO DR Preferred Practice Pattern; JAMA Ophthalmol. 2021;139(9):946-955 (PANORAMA); Arcadu F, et al. NPJ Digit Med. 2019;2:92.

# HELIOS: Phase 1 SAFETY Study of AXPAXLI in NPDR



Multi-center, double-masked, randomized, parallel group study of AXPAXLI in patients with moderately-severe to severe NPDR without CI-DME



## STUDY OUTCOMES

### PRIMARY OUTCOMES

Safety and tolerability of AXPAXLI

### SECONDARY OUTCOMES

DRSS changes, rescue therapy, BCVA and CSFT changes



\*14 patients enrolled in AXPAXLI treatment arm, with one patient death unrelated to treatment. Ocular Therapeutix data on file as of May 22, 2024. BCVA (Best-corrected visual acuity); DRSS (Diabetic retinopathy severity scale); CSFT (Central subfield thickness); NPDR (Non-proliferative diabetic retinopathy); CI-DME (center involved diabetic macular edema).

# HELIOS Safety Overview



**AXPAXLI was generally well tolerated**



**No ocular SAEs reported in either arm**



**All AEs were mild and balanced across the two arms, with no moderate or severe AEs reported in either arm**



**AXPAXLI injection did not result in any reported intraocular inflammation, iritis, vitritis, or vasculitis**



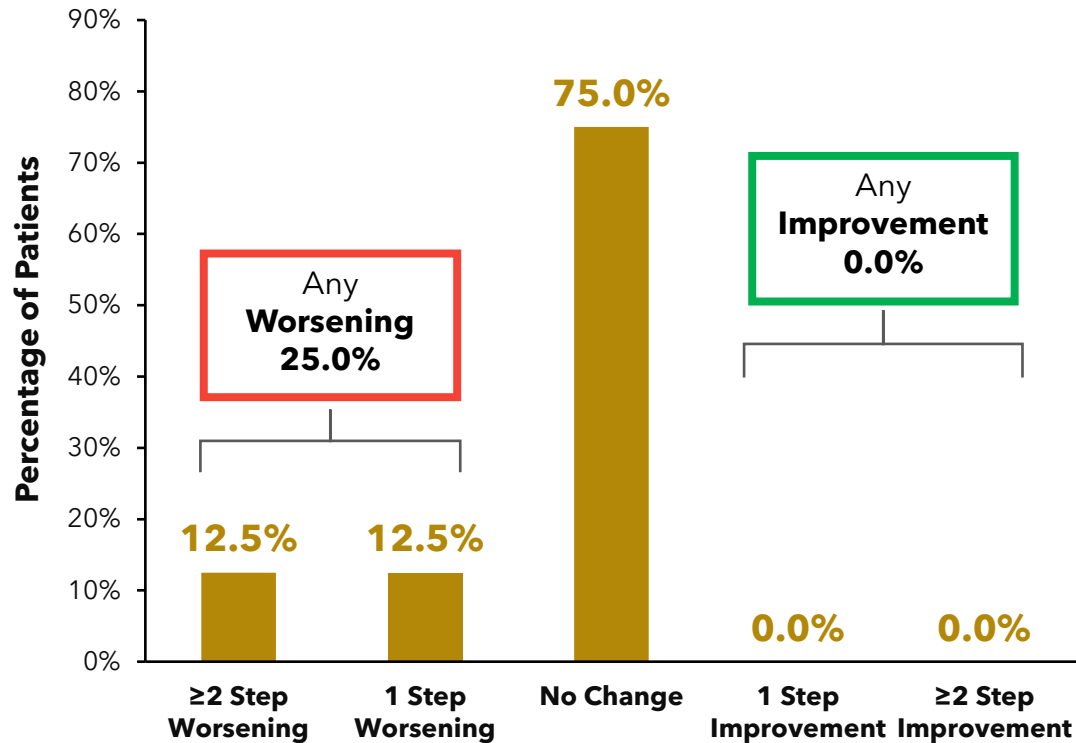
**No subjects in either arm received supplemental injections**

# DRSS Change at 48 Weeks

**23.1% 2-step DRSS improvement in AXPAXLI arm at Week 48 compared to 0% in the sham arm**

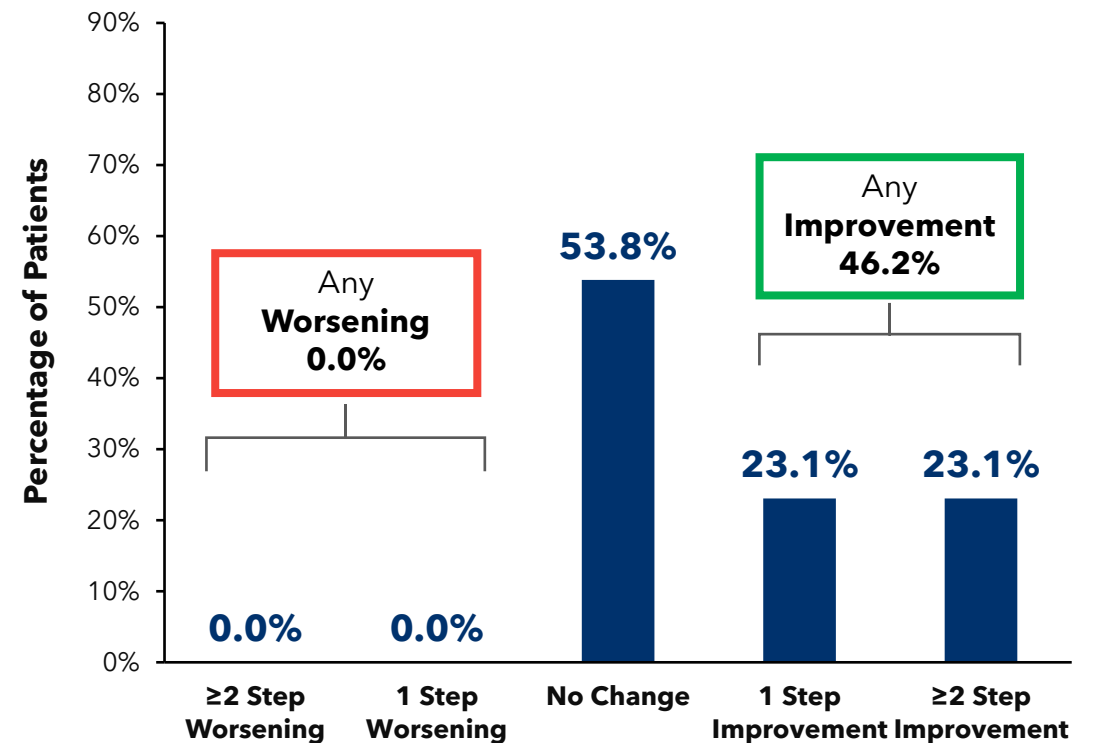
## SHAM CONTROL (N=8)

Change in DRSS from Baseline to Week 48



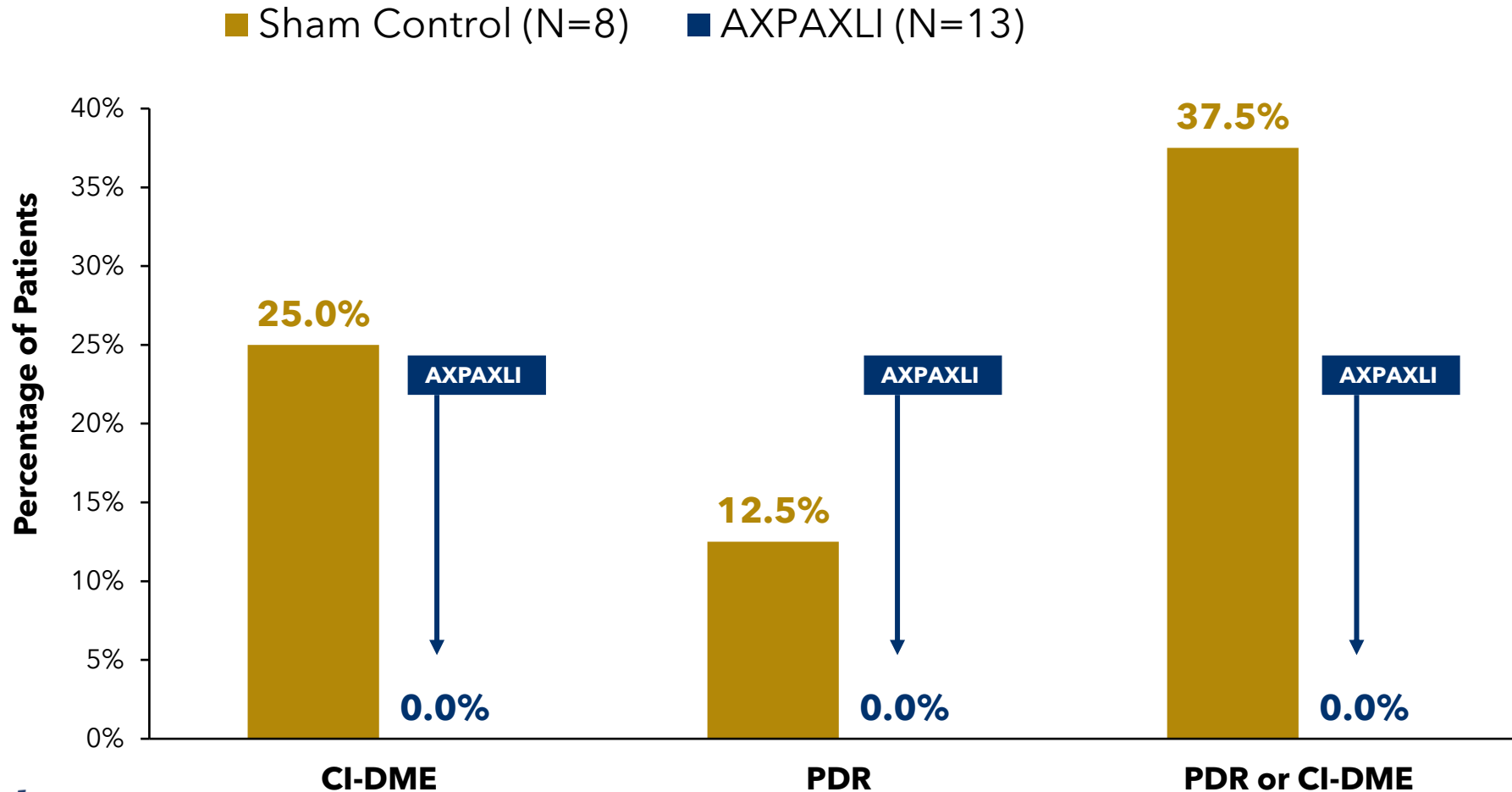
## AXPAXLI (N=13)

Change in DRSS from Baseline to Week 48



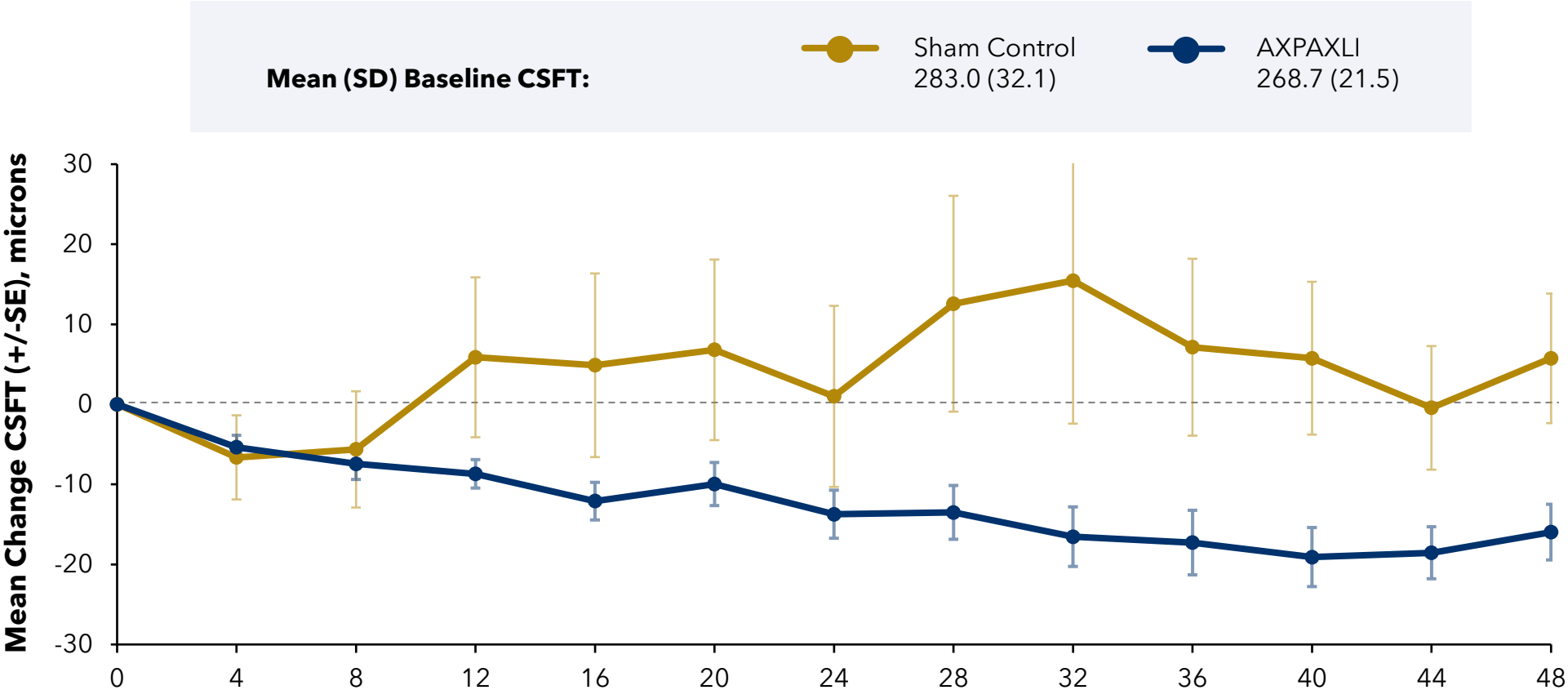
# PDR or CI-DME at Week 48

**0% in the AXPAXLI treated arm developed PDR or CI-DME at Week 48 compared to 37.5% in the sham arm**



# Strong Trend Toward CSFT Reduction Only Observed with AXPAXLI

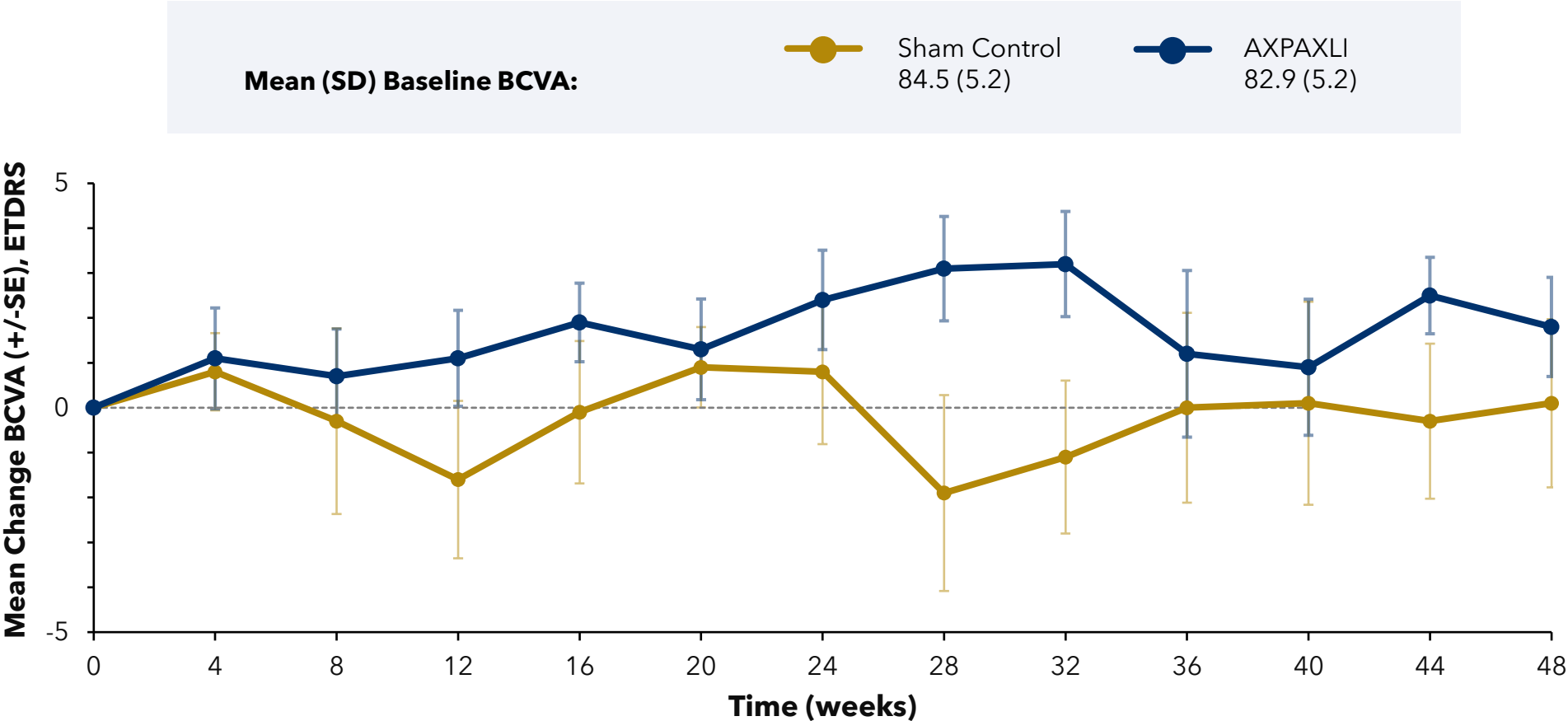
### MEAN CSFT CHANGE OVER TIME FROM BASELINE



Ocular Therapeutix data on file as of May 22, 2024.  
Error bars represent standard error.  
CSFT (Central subfield thickness).

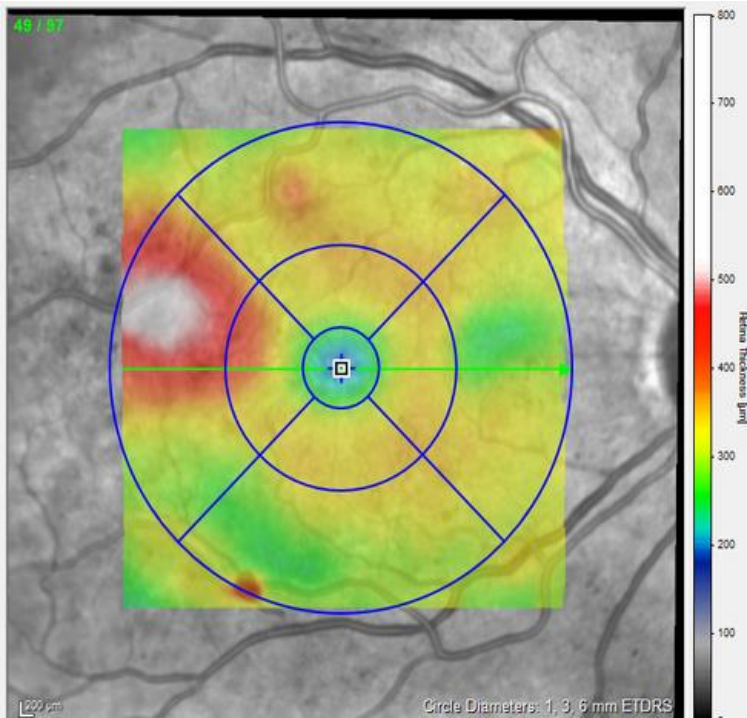
# Stable Vision Through 48 Weeks Observed with AXPAXLI

### MEAN BCVA CHANGE FROM BASELINE

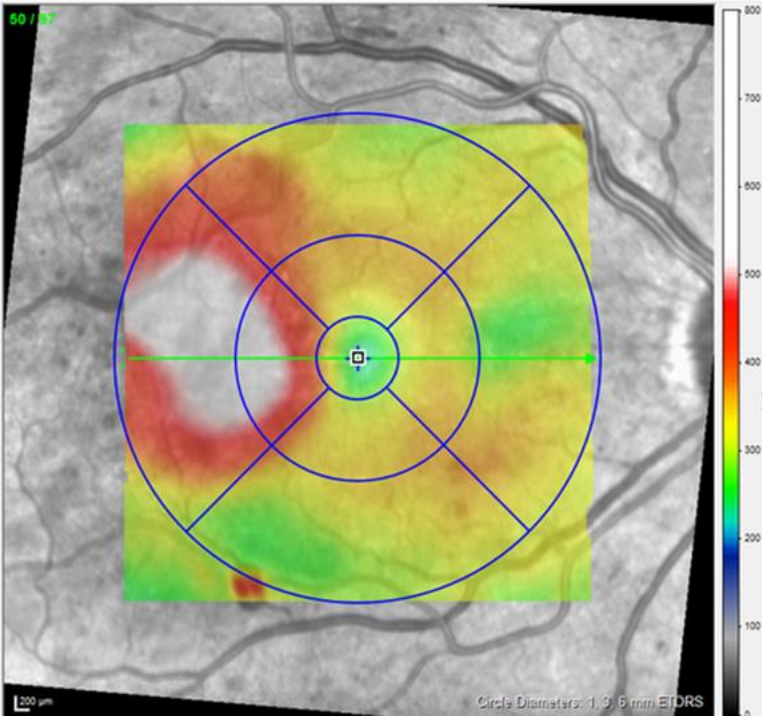


Ocular Therapeutix data on file as of May 22, 2024.  
Error bars represent standard error.  
BCVA (Best-corrected visual acuity).

# Worsening of Diabetic Macular Edema in Sham Control Patient



**BASELINE**  
CSFT = 237  $\mu\text{m}$

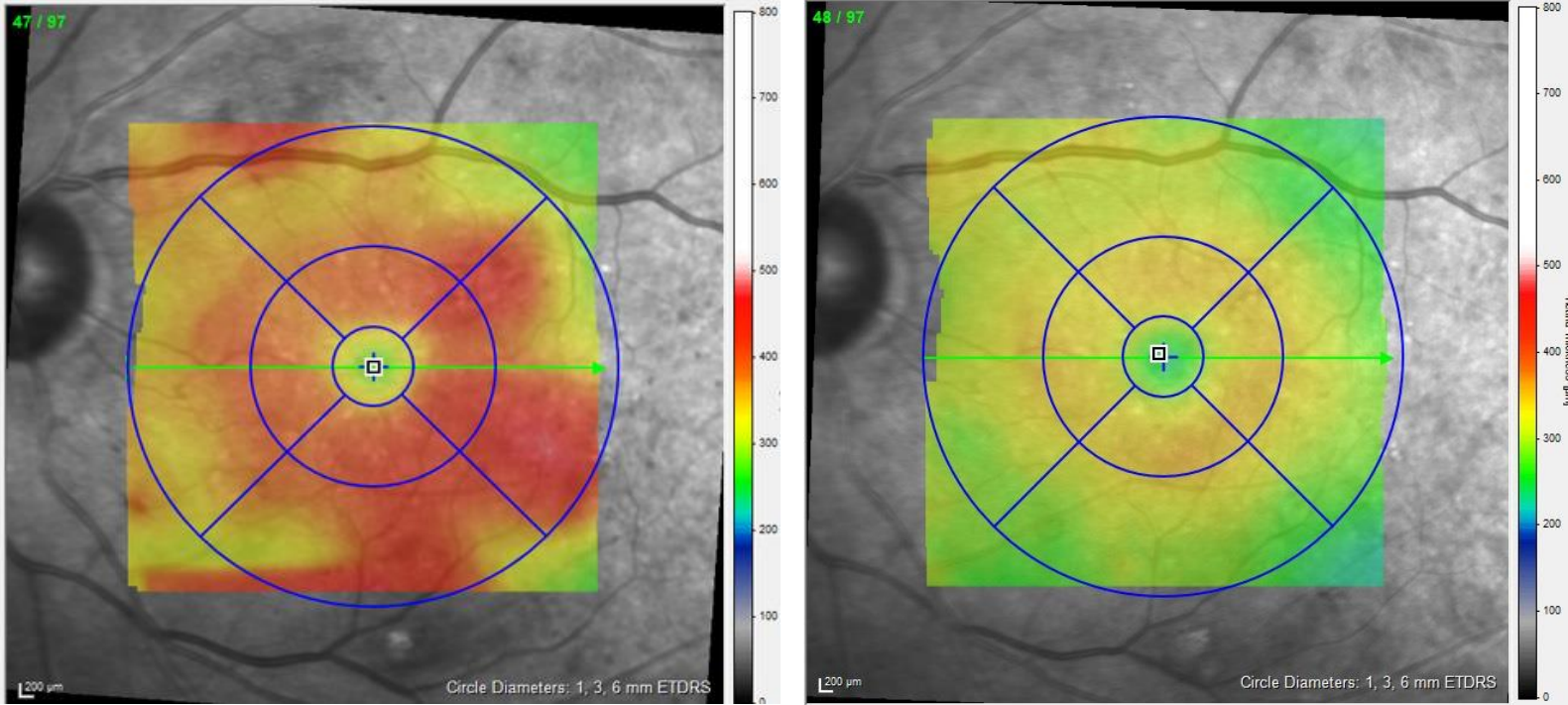


**WEEK 48**  
CSFT = 285  $\mu\text{m}$

**Sham Control: Patient 11-002 Developed CI-DME**



# Improvement in Diabetic Macular Edema in Patient Receiving AXPAXLI



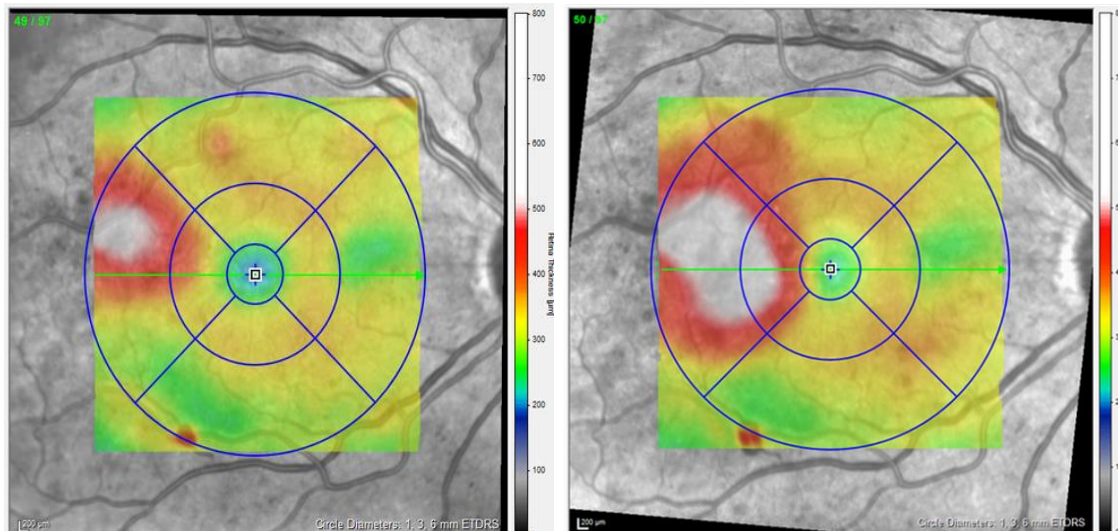
**BASELINE**  
CSFT = 320  $\mu\text{m}$

**WEEK 48**  
CSFT = 289  $\mu\text{m}$

**AXPAXLI Treatment: Patient 11-008**

# DME Changes from Baseline to Week 48: Sham vs AXPAXLI

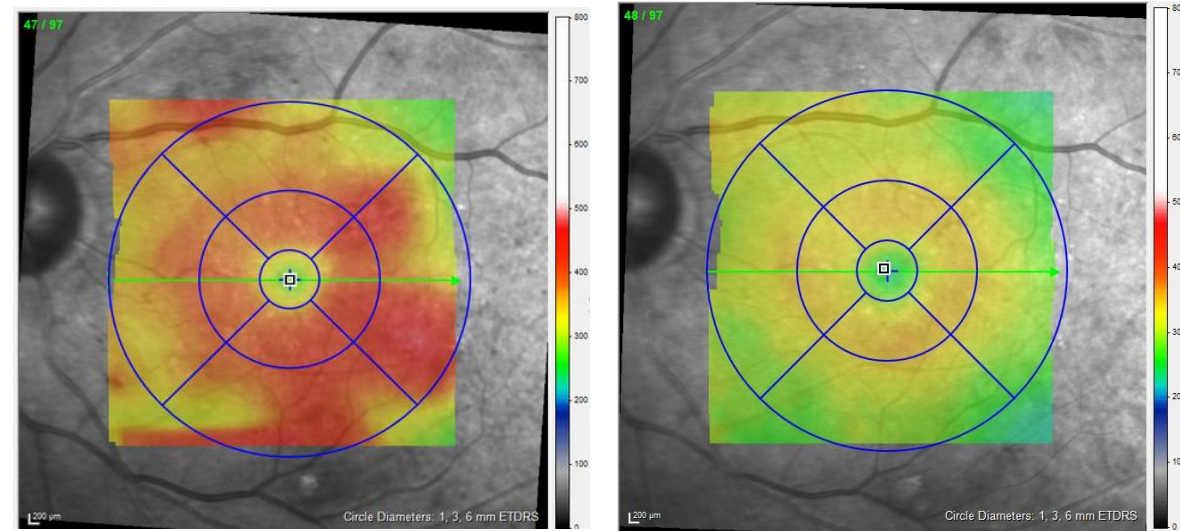
## Sham Control: Patient 11-002



**BASELINE**  
CSFT = 237  $\mu\text{m}$

**WEEK 48**  
CSFT = 285  $\mu\text{m}$

## AXPAXLI Treatment: Patient 11-008

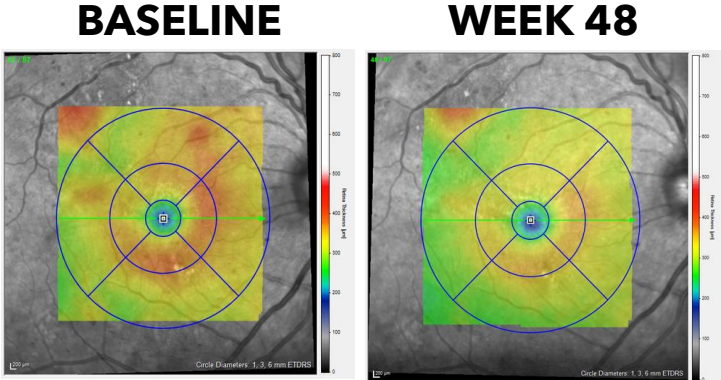


**BASELINE**  
CSFT = 320  $\mu\text{m}$

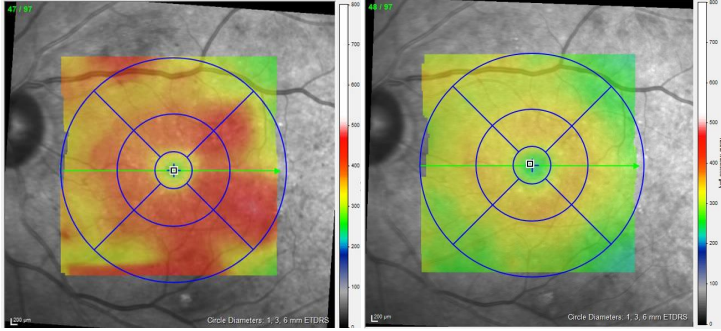
**WEEK 48**  
CSFT = 289  $\mu\text{m}$

# Improvement in Diabetic Macular Edema in Patients Receiving AXPAXLI

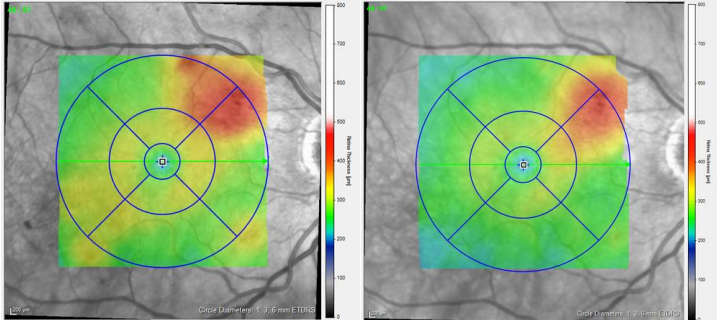
**Patient 11-007**



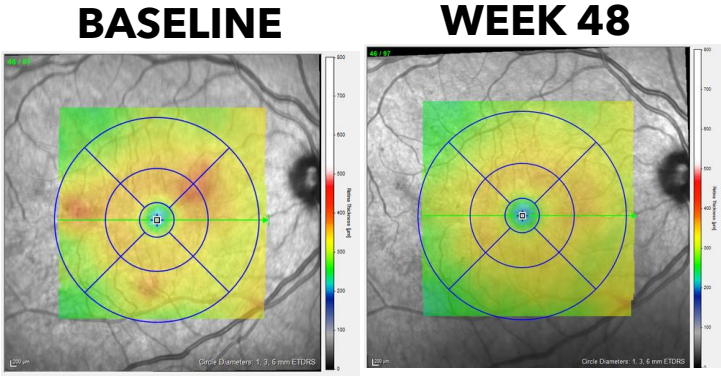
**Patient 11-008**



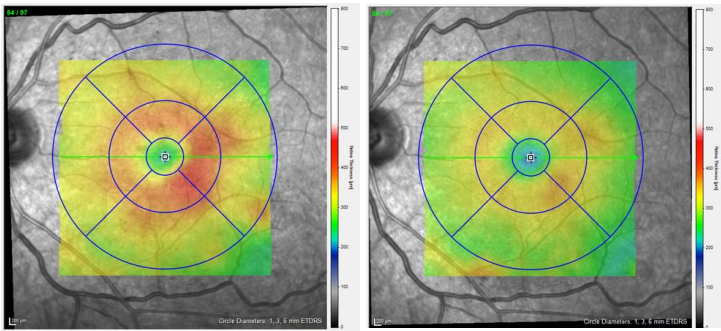
**Patient 13-001**



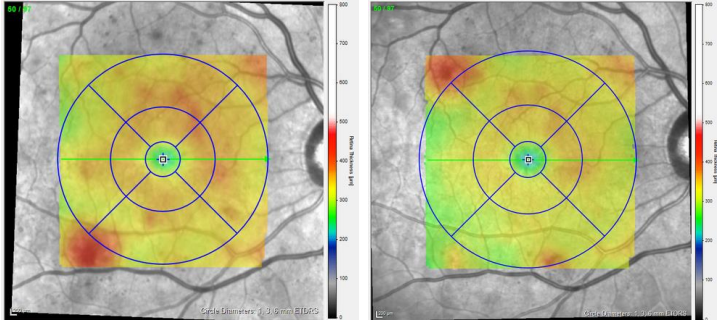
**Patient 15-004**



**Patient 16-005**



**Patient 16-006**



Ocular Therapeutix data on file as of May 22, 2024. CSFT (Central subfield thickness).

# HELIOS Phase 1 Summary

1

**23.1%  $\geq$ 2-step DRSS improvement in AXPAXLI arm at week 48** compared to 0% in sham; additional **23.1% 1-step DRSS improvement in AXPAXLI** compared to 0% sham

2

**Zero patients in the AXPAXLI arm showed worsening in DRSS by week 48** compared to 25% of patients in the sham arm

3

**Zero patients in the AXPAXLI arm developed PDR or CI-DME by week 48** compared to 37.5% in the sham arm

4

**Strong trend toward CSFT reduction and stable vision through 48 weeks observed with AXPAXLI**, but not with sham

5

**AXPAXLI was generally well-tolerated** and did not result in any reported incidence of intraocular inflammation, iritis, vitritis, or vasculitis

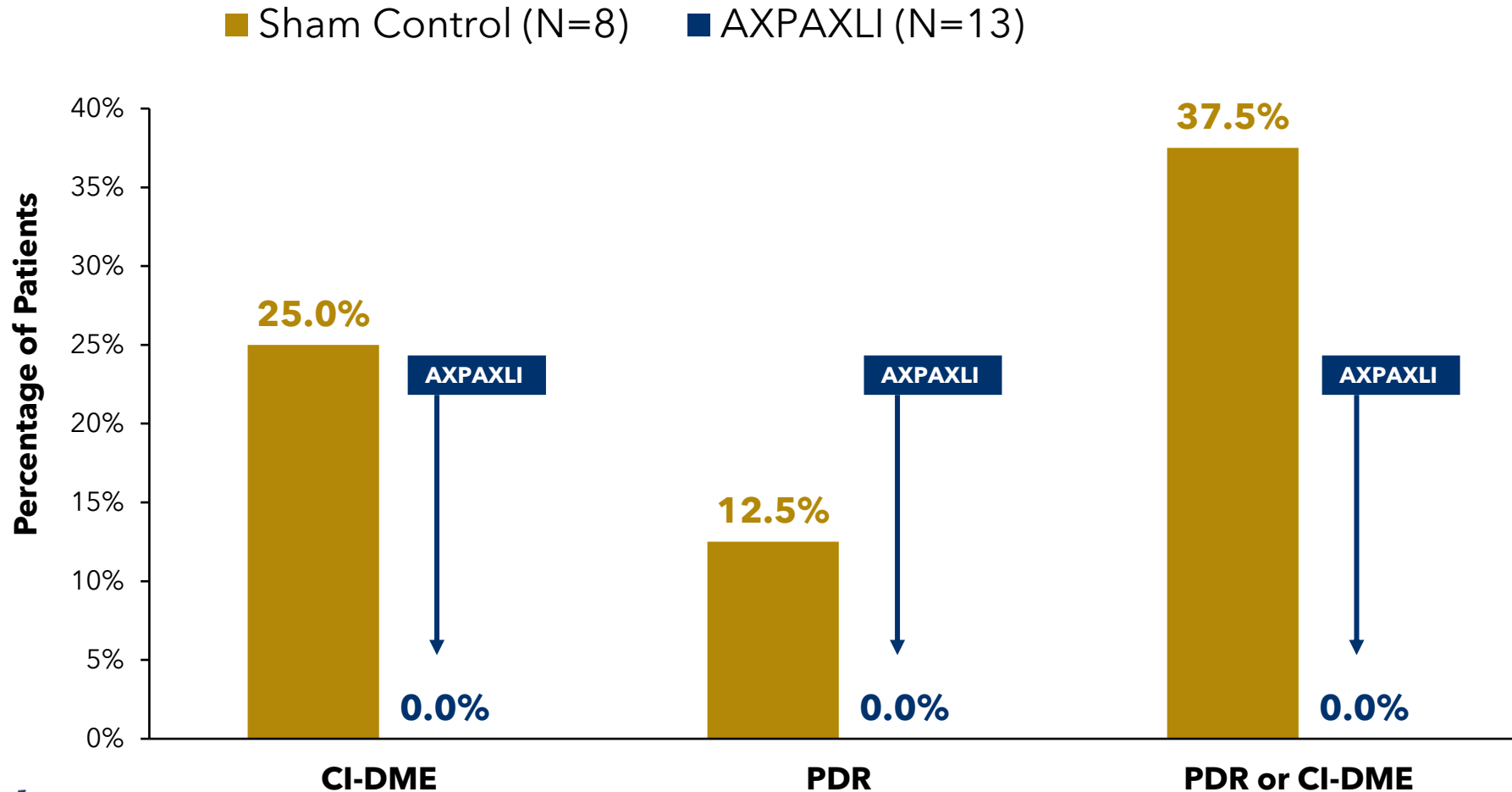
**NEXT STEPS: Meet with FDA to discuss regulatory path forward**

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# PDR or CI-DME at Week 48

0% in the AXPAXLI treated arm developed PDR or CI-DME at Week 48 compared to 37.5% in the sham arm



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# Summary & Takeaways

Pravin U. Dugel, MD

Executive Chairman, President & CEO





# Key Takeaways



...“Dream Team” has produced results in a very short time...

...Clinical trial strategy designed for regulatory and commercial success....

...Compelling AXPAXLI data in 3 studies demonstrated favorable safety and durable activity

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Moderator: Peter K. Kaiser, MD
- **AXPAXLI in NPDR: HELIOS Update**  
Nadia K. Waheed, MD, MPH
- **HELIOS / NPDR Discussion**  
Moderator: Nadia K. Waheed, MD, MPH
- **Summary & Takeaways**  
Pravin U. Dugel, MD
- **Audience Q&A**  
ALL

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# Q&A



# Ocular Therapeutix Team Members Are Here To Answer Your Questions



**Jeffrey S.  
Heier, MD**

*Chief Scientific Officer*



**Peter K.  
Kaiser, MD**

*Chief Development Officer*



**Nadia K. Waheed,  
MD, MPH**

*Chief Medical Officer*



**Pravin U.  
Dugel, MD**

*Executive Chairman,  
President & CEO*



**Donald  
Notman**

*Chief Financial Officer*



**Sanjay Nayak,  
MBBS, PhD**

*Chief Strategy Officer*



**THANK YOU**