Delivering Innovation to the Eye

Investor Presentation
May 2022

EyePoint® PHARMACEUTICALS

Forward Looking Statements

Various statements made in this presentation are forward-looking, within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, and are inherently subject to risks, uncertainties and potentially inaccurate assumptions. All statements that address activities, events or developments that we intend, expect, plan or believe may occur in the future, including but not limited to statements about our expectations regarding the timing and clinical development of our product candidates, including EYP-1901; the potential for EYP-1901 as a novel six-month treatment for serious eye diseases, including wet age-related macular degeneration; and our longer term financial and business goals and expectations, are forward-looking statements. Some of the factors that could cause actual results to differ materially from the anticipated results or other expectations expressed, anticipated or implied in our forward-looking statements are risks and uncertainties inherent in our business including, without limitation: the effectiveness and timeliness of clinical trials, and the usefulness of the data; the timeliness of regulatory approvals; the success of current and future license agreements; the extent to which COVID-19 impacts our business; our ability to achieve profitable operations and access to needed capital; fluctuations in our operating results; our dependence on contract research organizations, co-promotion partners, and other outside vendors and service providers; effects of competition and other developments affecting sales of our commercialized products; market acceptance of products; protection of intellectual property and avoiding intellectual property infringement; retention of key personnel; product liability; industry consolidation; compliance with environmental laws; manufacturing risks; risks and costs of international business operations; volatility of our stock price; possible dilution; absence of dividends; and other factors described in our filings with the Securities and Exchange Commission. We cannot guarantee that the results and other expectations expressed, anticipated or implied in any forward-looking statement will be realized. A variety of factors, including these risks, could cause our actual results and other expectations to differ materially from the anticipated results or other expectations expressed, anticipated or implied in our forward-looking statements. Should known or unknown risks materialize, or should underlying assumptions prove inaccurate, actual results could differ materially from past results and those anticipated, estimated or projected in the forward-looking statements. You should bear this in mind as you consider any forward-looking statements. Our forward-looking statements speak only as of the dates on which they are made. We do not undertake any obligation to publicly update or revise our forward-looking statements even if experience or future changes makes it clear that any projected results expressed or implied in such statements will not be realized.

COMPANY OVERVIEW

Compelling Pipeline Leverages Proven Durasert® Technology

Compelling pipeline focused on retinal disease

- EYP-1901 – vorolanib (TKI) in bioerodible Durasert
  - Positive safety and efficacy data from Phase 1 DAVIO clinical trial
  - Phase 2 trial in wet AMD to begin in Q3 2022 with top line data anticipated in 2H 2023
  - Phase 2 trial in diabetic retinopathy to begin in 2H 2022, diabetic macular edema in 1Q 2023
- Additional molecules and MOAs under evaluation

Durasert® - proven intravitreal (IVT) drug delivery

- Sustained local drug delivery with a single in-office IVT injection
- Constant (zero-order kinetics), stable release of drug over months or years
- Safely administered to thousands of patients' eyes across four FDA approved products

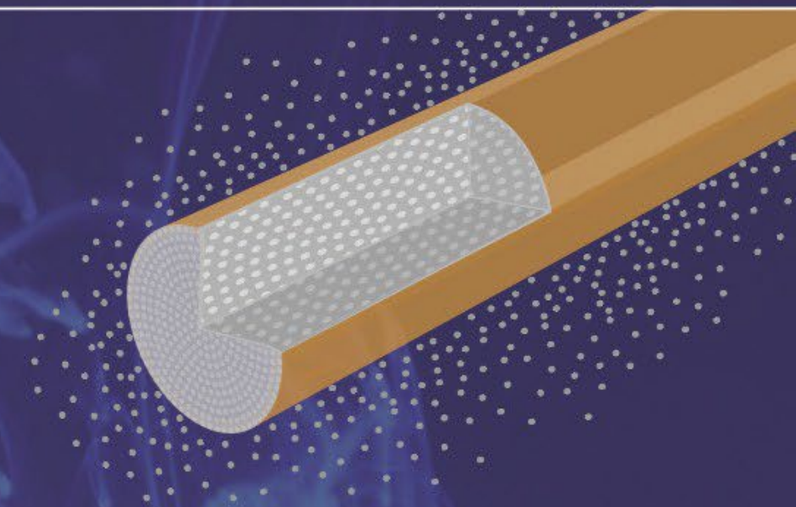
Strong Balance Sheet

- $191 million in cash and investments on March 31, 2022
- Cash runway into 2H of 2024 under current plan
- Commercial franchise, YUTIQ and DEXYCU, positioned for 2022 break-even

PLATFORM TECHNOLOGY

DURASERT®

Proven Sustained Release Intravitreal Drug Delivery



PROVEN TECHNOLOGY

DURASERT®

Safe Sustained Intravitreal Delivery

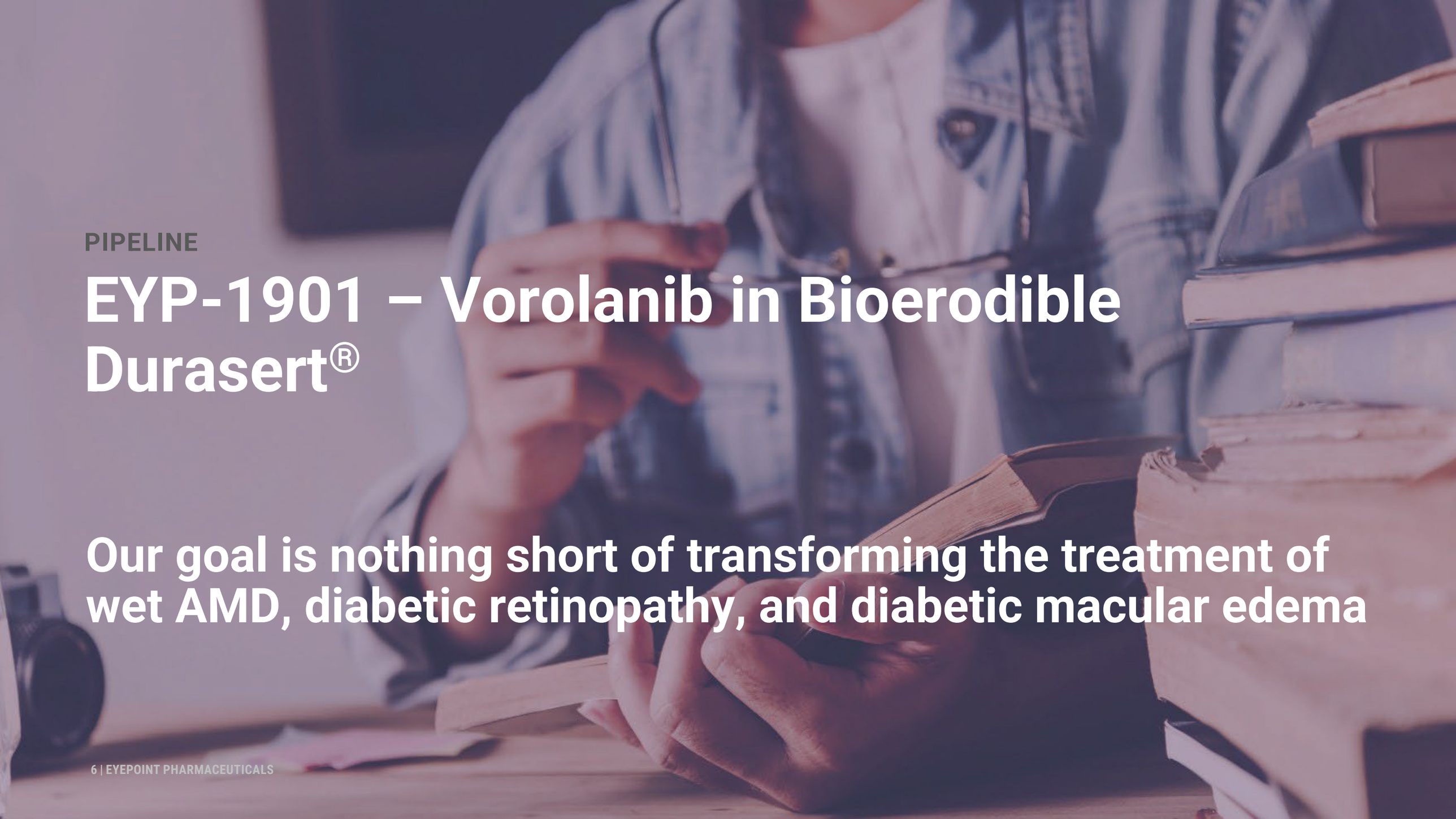
- Delivered by a single in-office intravitreal injection
- Continuous, stable release can provide consistent and reliable drug delivery over weeks, months, or years

Non-Erodible - Approved Products

- YUTIQ® (2018, EyePoint) - Posterior Segment Uveitis
- ILUVIEN® (2014, Alimera) - DME
- RETISERT® (2005, B&L) - Uveitis
- VITRASERT® (1996, B&L) - CMV retinitis

Bioerodible – EYP-1901

- Non-erodible polyimide coating eliminated
- Drug release dynamics
  - Initial burst from insert surface
  - Constant, zero-order kinetic release rate over months



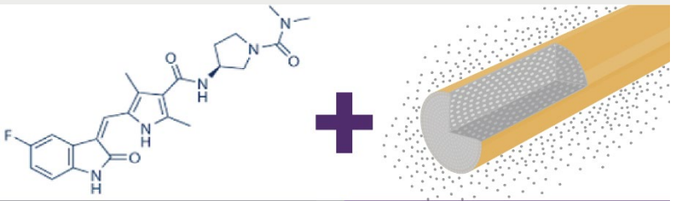
PIPELINE

EYP-1901 – Vorolanib in Bioerodible Durasert®

Our goal is nothing short of transforming the treatment of wet AMD, diabetic retinopathy, and diabetic macular edema

PIPELINE

EYP-1901



VOROLANIB | DURASERT

Unmet Need - Real World Reality – Even One Missed Injection Can Mean Loss of Vision

AMERICAN ACADEMY OF OPHTHALMOLOGY®

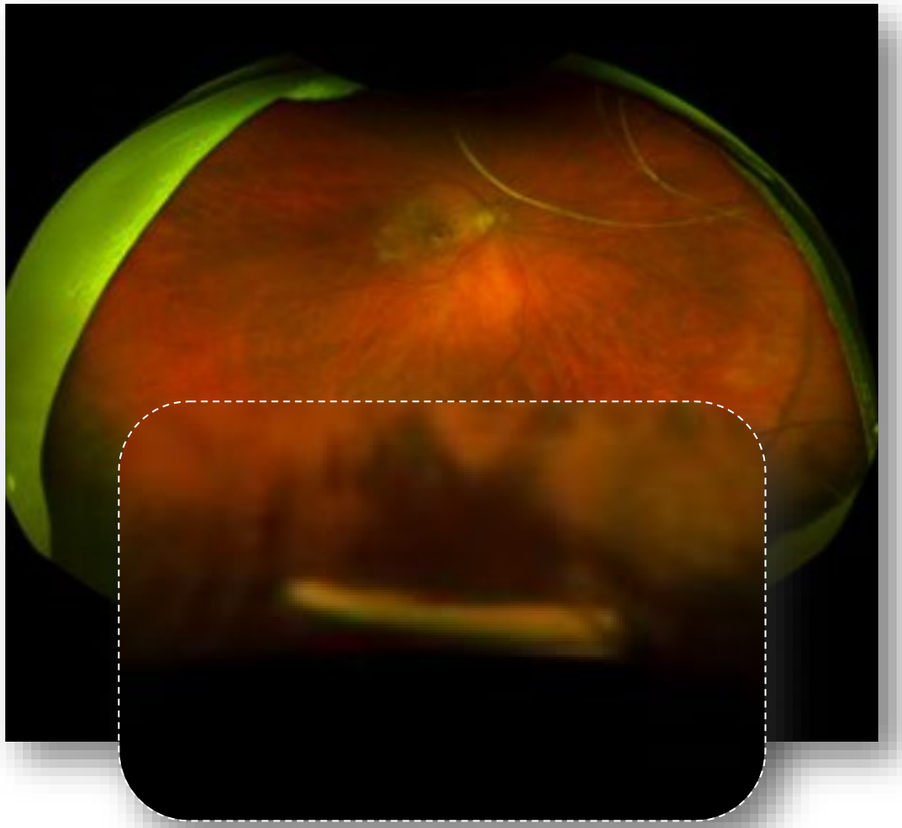
The Effect of Delay in Care among Patients Requiring Intravitreal Injections

Weilin Song, BS,[1] Rishi P. Singh, MD,[2] Aleksandra V. Rachitskaya, MD[3]

- Study evaluated 1,041 pts getting intravitreal anti-VEGF therapies
- 60% went to scheduled follow up - 40% did not
- Conclusion: With frequent injections required for current standard of care, a delay in care of only 5.34 weeks resulted in visual loss
- Sustained release options may give practitioners and patients improved outcomes

EYP-1901 -Vorolanib in Bioerodible Durasert®

A novel approach to wet AMD therapy



EYP-1901 insert at month 5 post-injection

EYP-1901

- Single injection of up to 3 inserts
- Bioerodible formulation of Durasert
- Initial drug burst from surface of insert potentially beneficial
- Zero order kinetics release

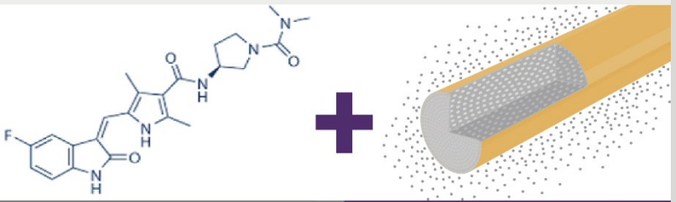
Vorolanib

- Receptor-binding TKI
- Activity against all isoforms of VEGF and PDGF
- Oral vorolanib previously studied in wet AMD phase 1 and phase 2 programs[1,2]

1. Jackson et al. JAMA Ophthalmol 2017
2. Cohen MN et al. Br J Ophthalmol. 2021

PIPELINE

EYP-1901

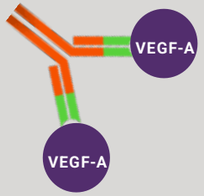


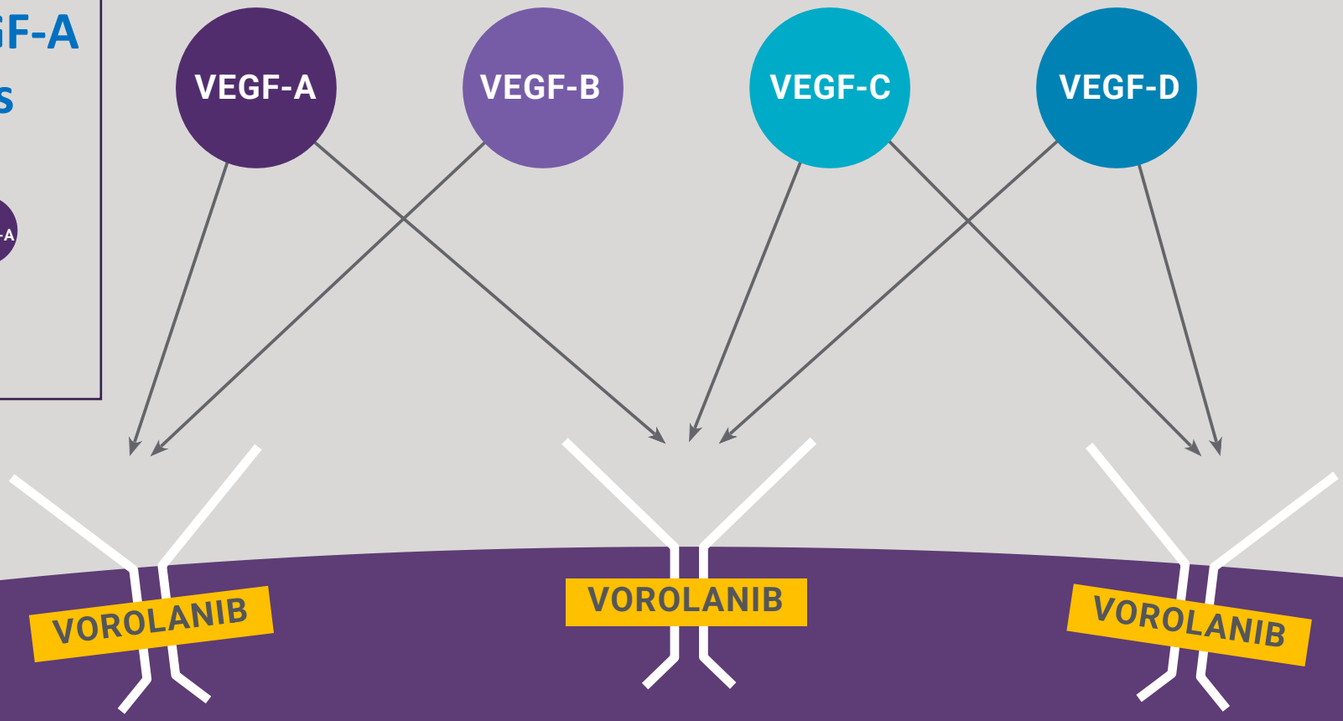
VOROLANIB | DURASERT

Vorolanib Blocks all Isoforms of VEGF and PDGF

VEGF SIGNALING PATHWAYS

Approved Anti-VEGF-A therapies

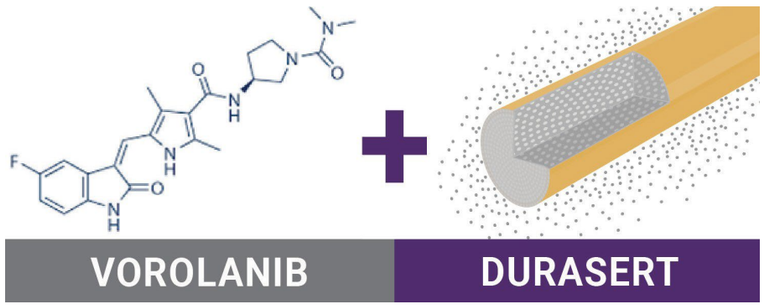




EYP-1901 DAVIO Phase I Clinical Trial Results

EYP-1901 DAVIO Phase 1 Clinical Trial Met all Objectives

Proof of Concept for Intravitreal Vorolanib in Wet AMD



SAFETY

Positive Safety Data

- No ocular SAEs reported
- No drug-related systemic SAEs reported
- Ocular AEs - majority mild and to be expected

EFFICACY and DURABILITY

Positive Efficacy Data

- Stable VA and OCT
- Median time to supplemental anti-VEGF: 6 months

- **76 %** supplemental treatment free up to 4 months
- **53 %** supplemental treatment free up to 6 months
- **41 %** supplemental treatment free up to 9 months

- Clinically significant reduction in treatment burden by **79 %** at 6 months – **75 %** at 8 months

EYP-1901 DAVIO Phase 1 Clinical Trial Participants

More serious disease with above average anti-VEGF injection frequency prior to enrollment

Screening Characteristics (N=17)	
Mean age, range (years)	77.4 (67–94)
Female (n, %)	13/17 (76%)
Mean BCVA, range (ETDRS letters)	69 letters, (38-85)
Mean CST, range (microns)	299 microns, (204–441)
Median length of time for wet AMD diagnosis prior to enrollment	17 months
Mean # of injections per year prior to enrollment	8.76 injections/year

BCVA: best corrected visual acuity; ETDRS: Early Treatment Diabetic Retinopathy Study; CST: central subfield thickness

EYP-1901 DAVIO Phase 1 Clinical Trial

Primary endpoint met with positive overall safety data at 6 months and continuing to date through 8 months

No ocular serious adverse events (SAEs) reported
No drug-related systemic SAEs reported

Ocular adverse events (AEs) specific interest:

- No vitreous floaters
- No endophthalmitis
- No retinal detachment
- No implant migration in the anterior chamber
- No retinal vasculitis
- No posterior segment inflammation

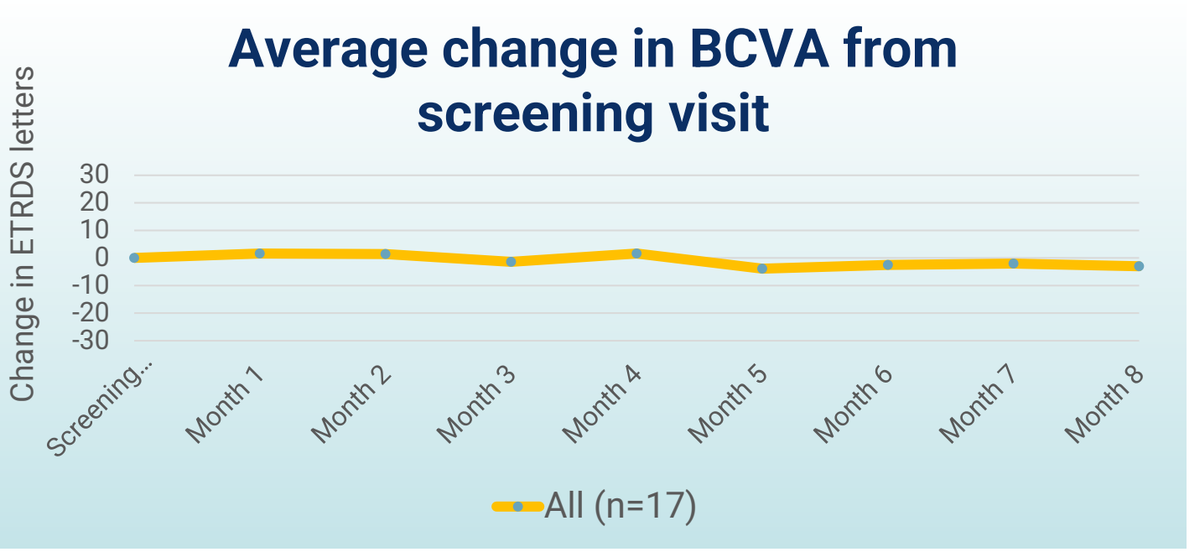
Ocular AEs Observed:

- One eye: mild asymptomatic anterior chamber cell/flare; *Treated with Maxitrol® eyedrops – resolved in 8 days –no sequelae or recurrence*
- One eye: asymptomatic vitreous hemorrhage from injection; *Observed*

EYP-1901 DAVIO Phase 1 Clinical Trial Efficacy Results

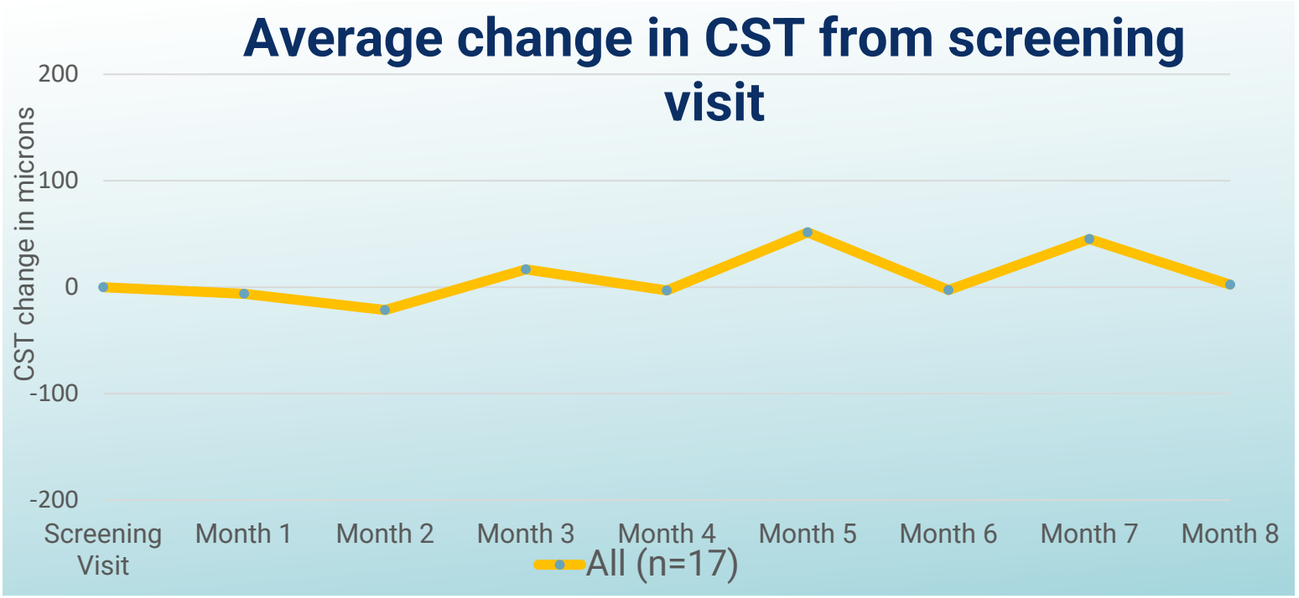
Visual acuity (VA) and central subfield thickness (CST) stable 8 months after single treatment

For all 17 eyes at 8 months
VA = -3.0 letters



BCVA: best corrected visual acuity

For all 17 eyes at 8 months
CST on OCT = + 2.4 microns

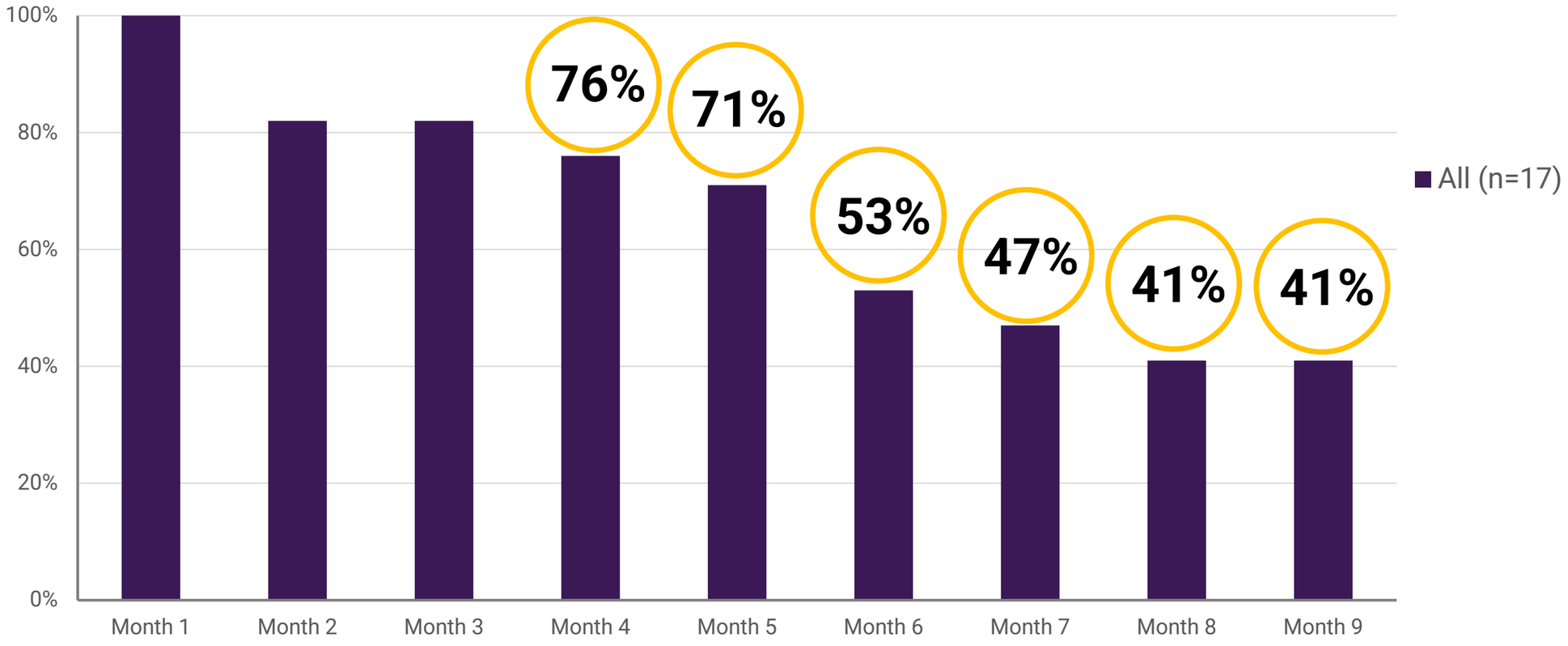


OCT: optical coherence tomography; CST: central subfield thickness

Interim data – monitored through 6 months

EYP-1901 DAVIO Phase 1 Clinical Trial

53% and 41% of patients at 6 months and 8 months, respectively, did not require supplemental anti-VEGF treatment



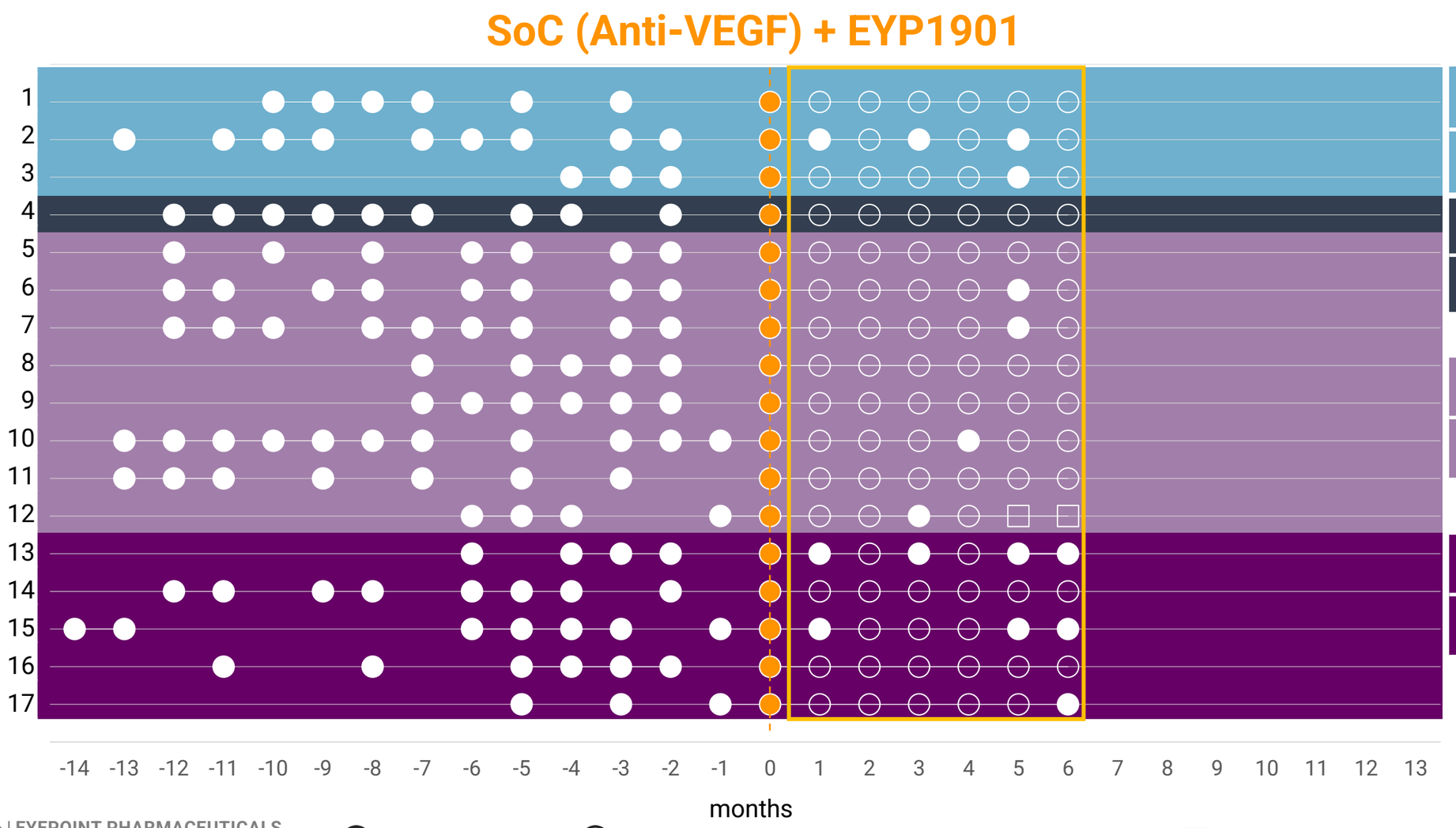
Median Time to supplemental anti-VEGF = 6 Months

Interim data – monitored through 6 months

EYP-1901 DAVIO Phase 1 Trial

Clinically significant reduction in treatment burden - 79 % at six-months

SOC Anti-VEGF Injections Before and After Treatment



Average Monthly TX Burden

	Prior period	6m period after	↓ %
Low dose (n=3)	0.74	0.22	-70%
Low-mid dose (n=1)	0.78	0	-100%
Mid dose (n=8)	0.78	0.08	-89%
High dose (n=5)	0.59	0.23	-61%

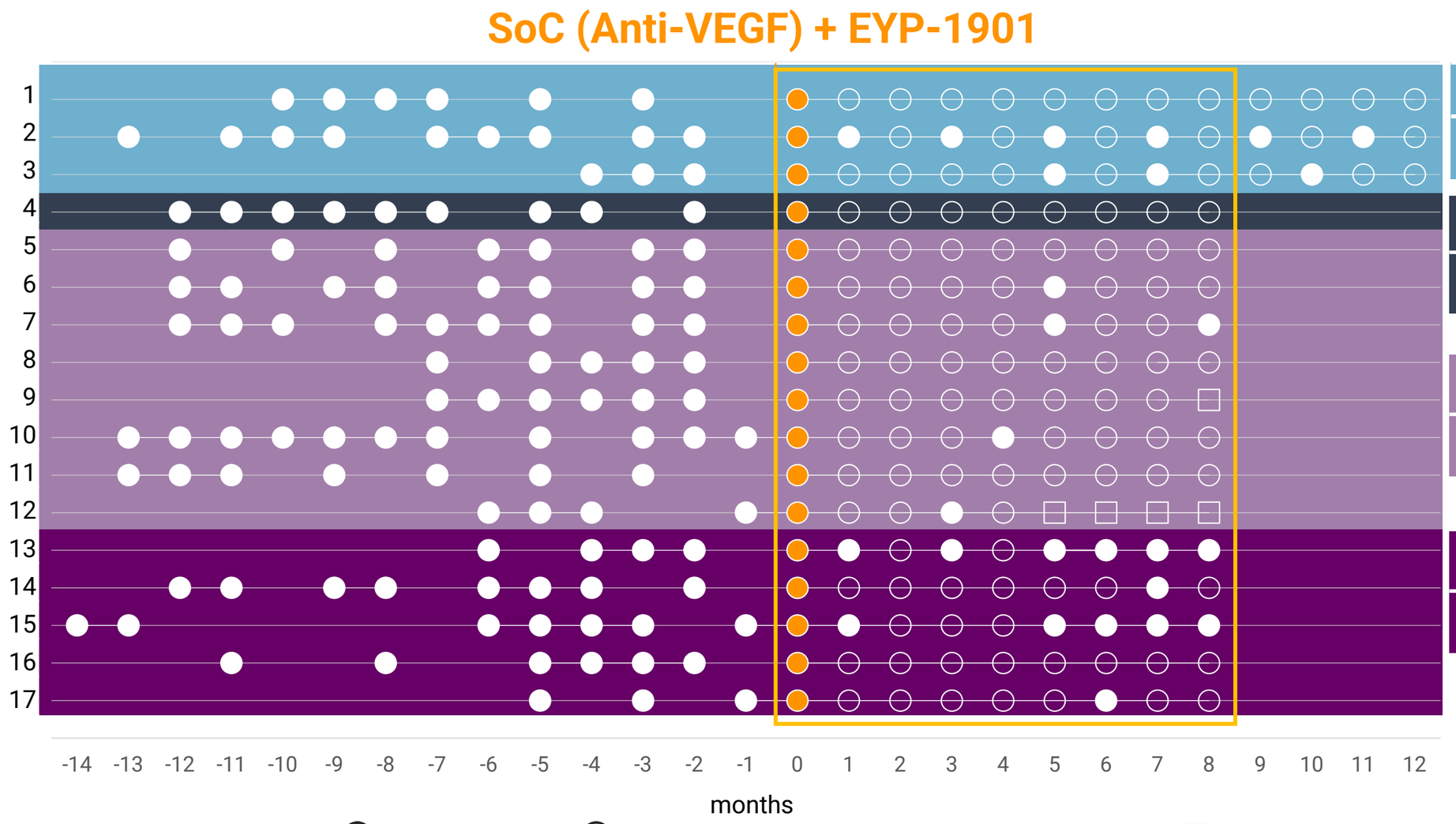
● Anti-VEGF ○ No supplemental injection given ☐ Missed visit

Interim data – monitored through 4 months

EYP-1901 DAVIO Phase I Trial

Clinically significant reduction in treatment burden - 75 % at eight-months

SOC Anti-VEGF Injections Before and After Treatment



Reduction in Average Monthly Tx Burden at 6 mos/8 mos

Low dose (n=3)	- 70% / - 66 %
Low-mid dose (n=1)	- 100% / - 100%
Mid dose (n=8)	- 89% / - 90 %
High dose (n=5)	- 61% / - 50 %

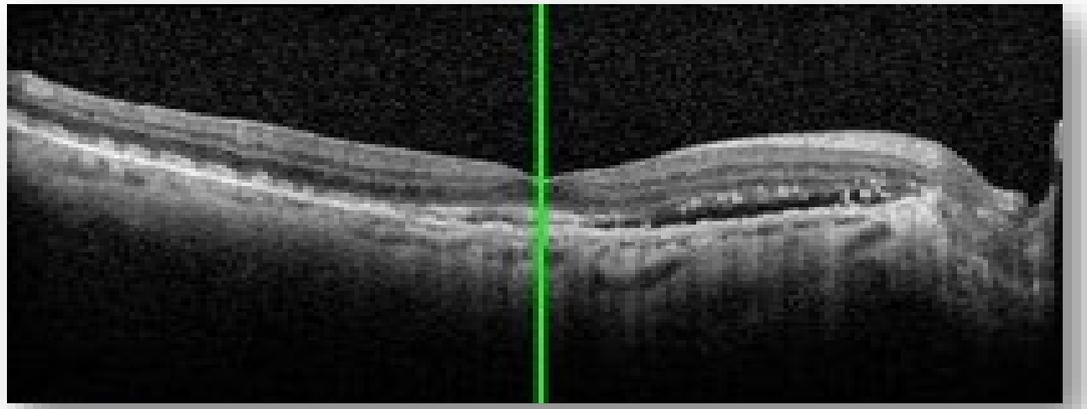
Interim data – monitored through 6 months

EYP-1901 DAVIO Phase 1 Trial Case Study

Retinal anatomy and vision maintained at 12 months following a single injection of EYP-1901 - *Low dose cohort (440 µg)*

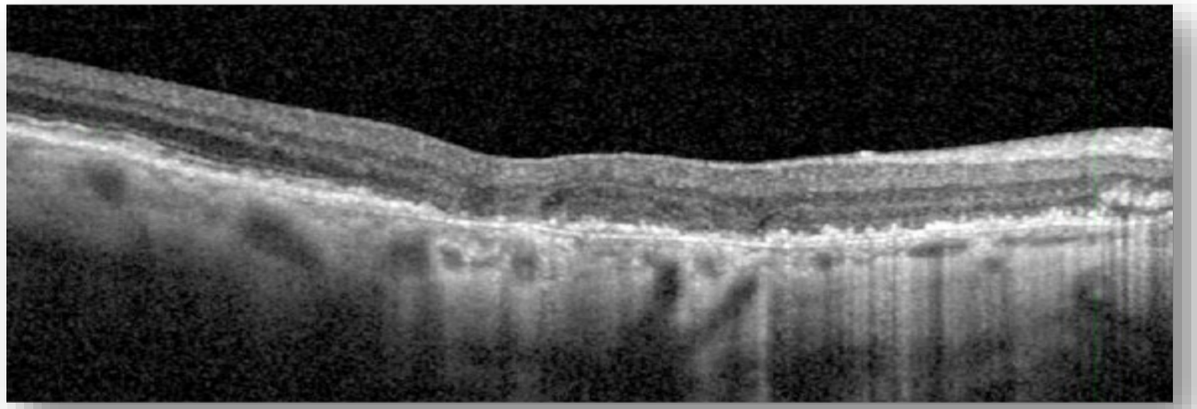
Initial diagnosis 9 mo before enrollment

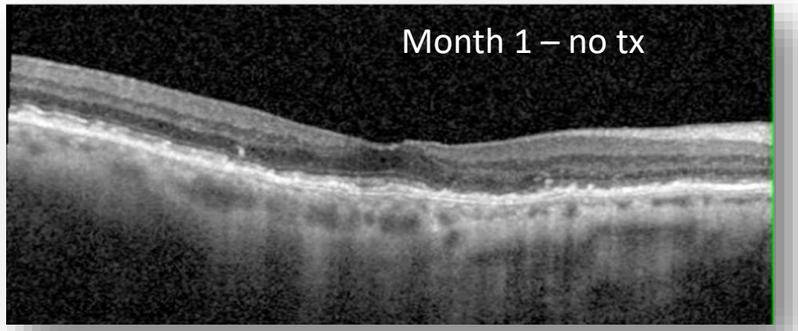
Initial Diagnosis: *9 months prior to enrollment*

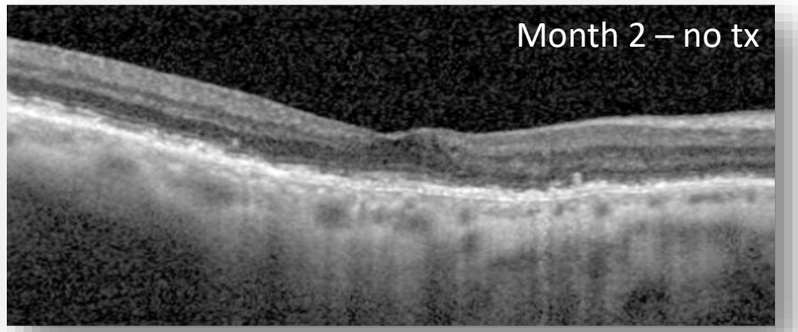


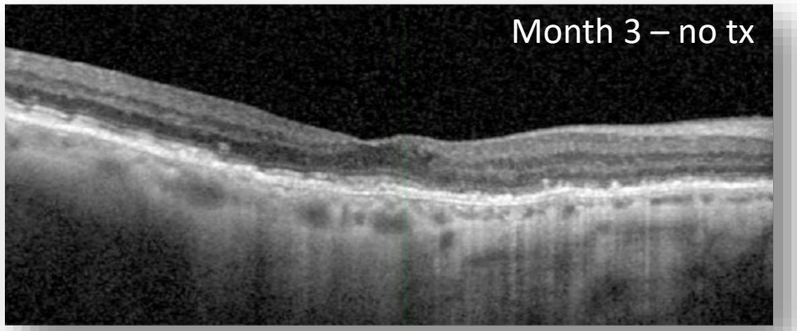
Screening visit prior to treatment

Screening Visit: *6 anti-VEGF injections prior to enrollment*



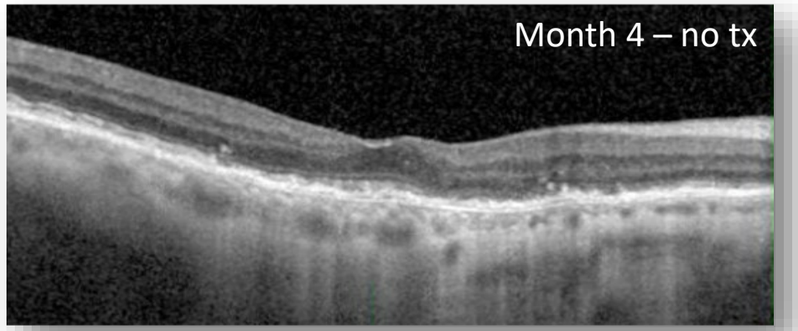


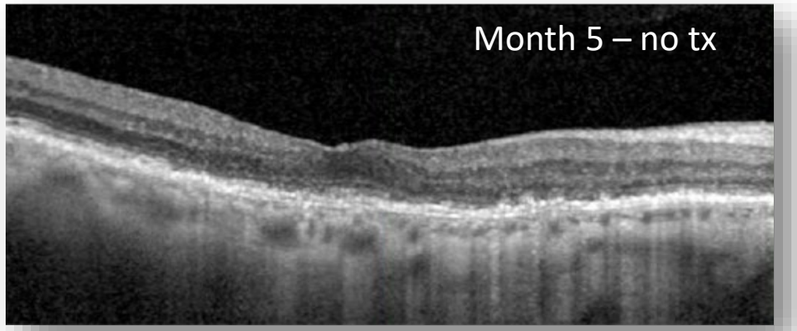


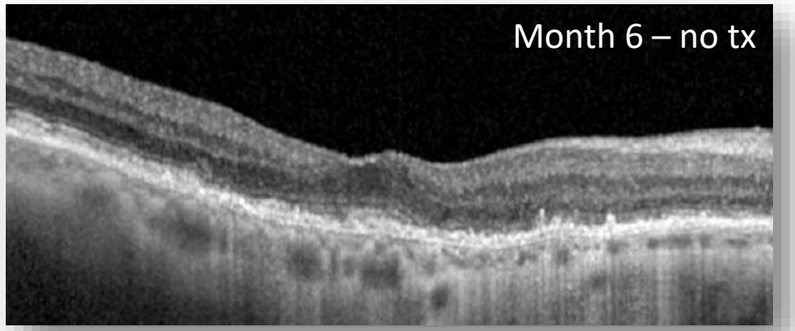


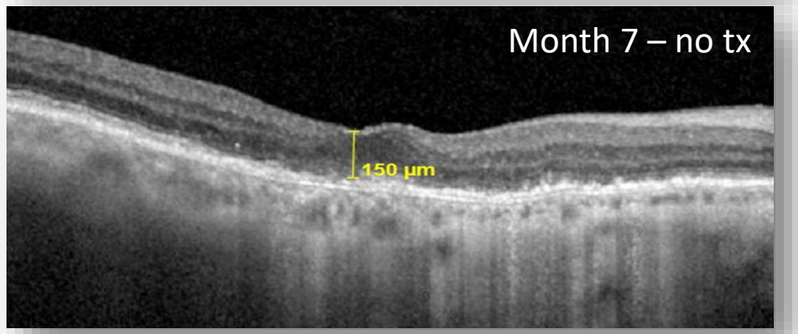
EYP-1901 DAVIO Phase 1 Trial Case Study

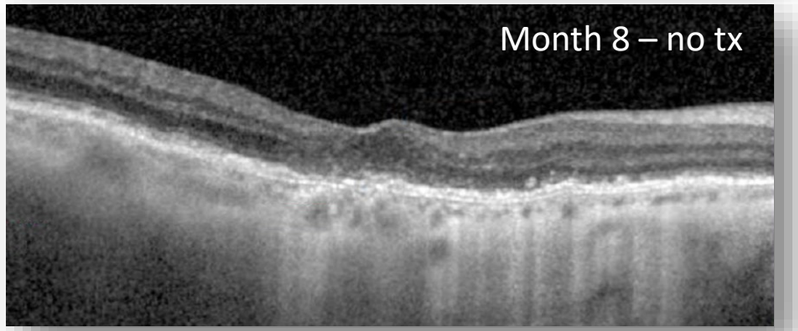
Retinal anatomy and vision maintained at 12 months following single injection of EYP-1901 - *Low dose cohort (EYP-1901 440 µg)*

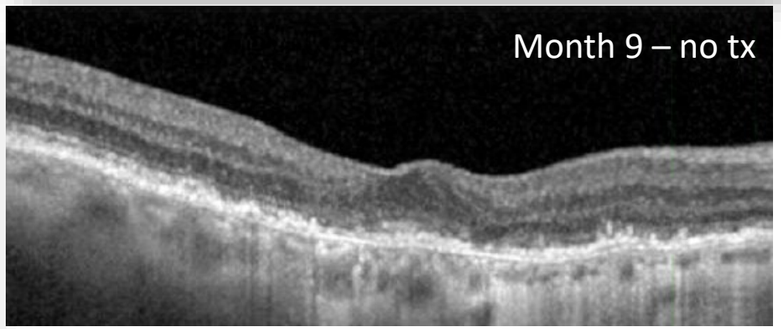


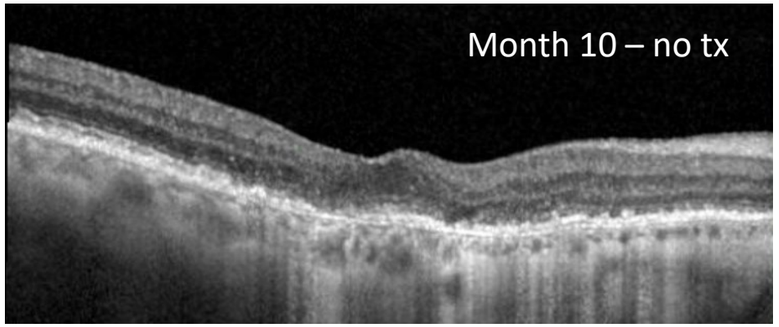


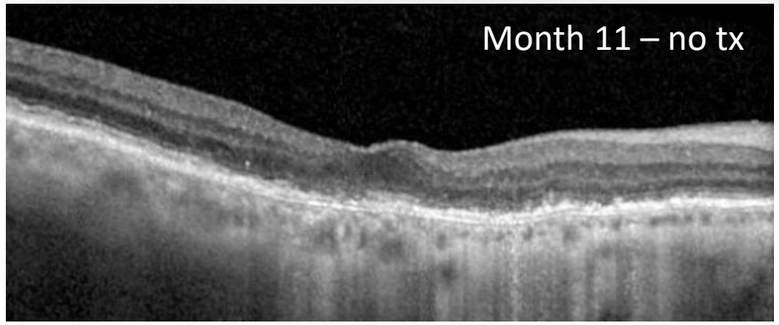


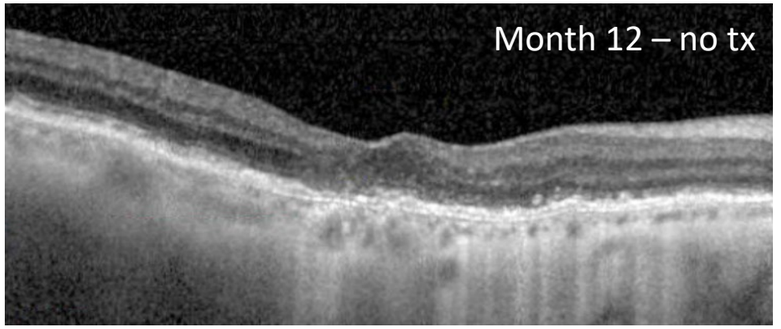






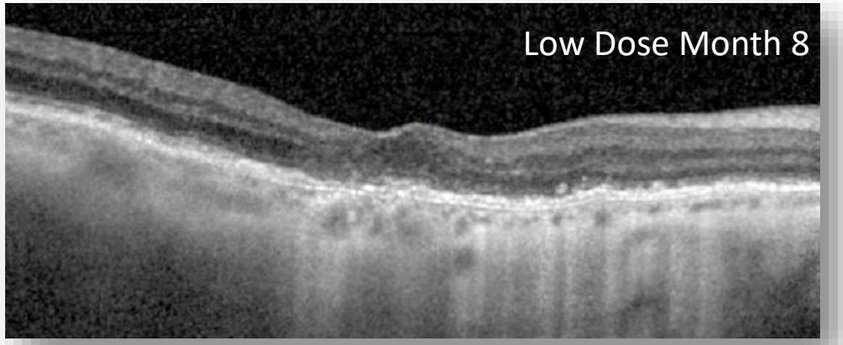


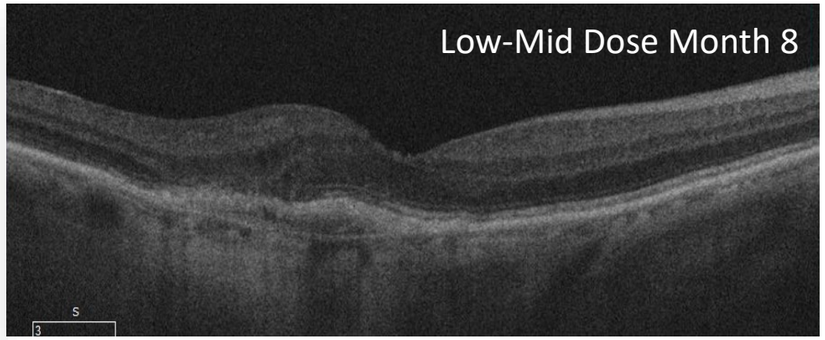


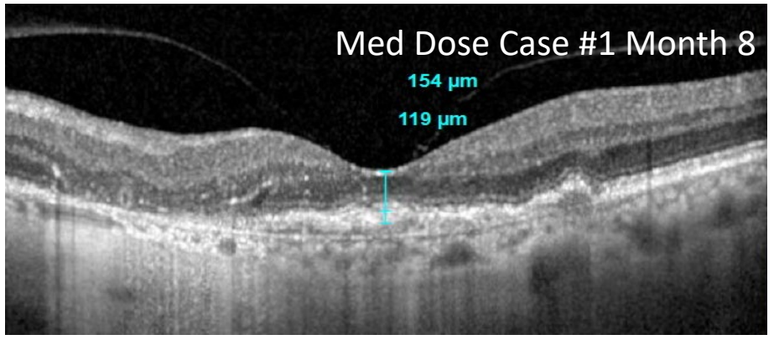


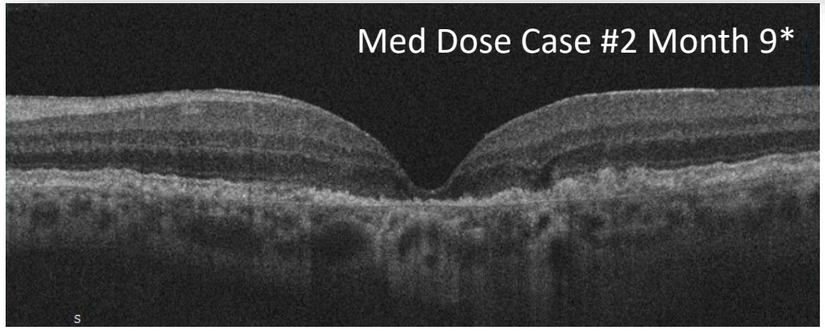
EYP-1901 DAVIO Phase 1 Trial

Eight-months after a single EYP-1901 injection, seven patients (41%) did not receive supplemental anti-VEGF treatment - anatomy and vision stable

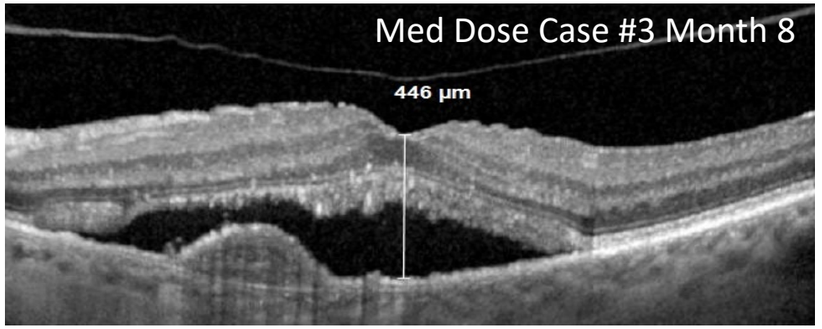


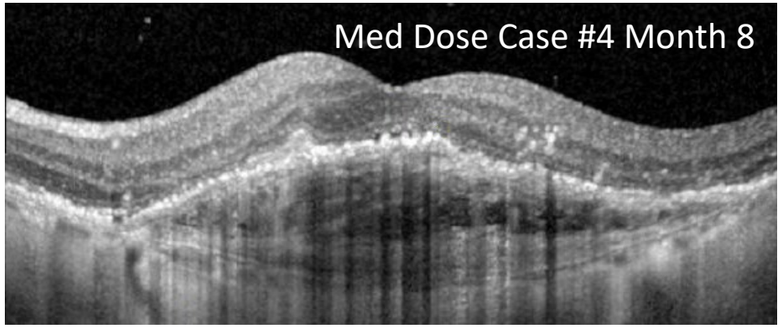


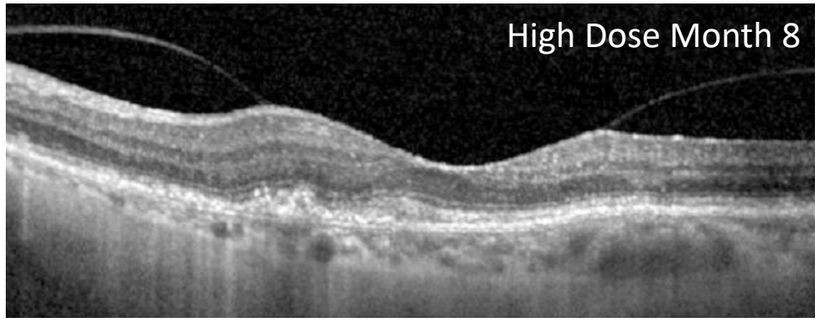




*Month 8 = missed visit







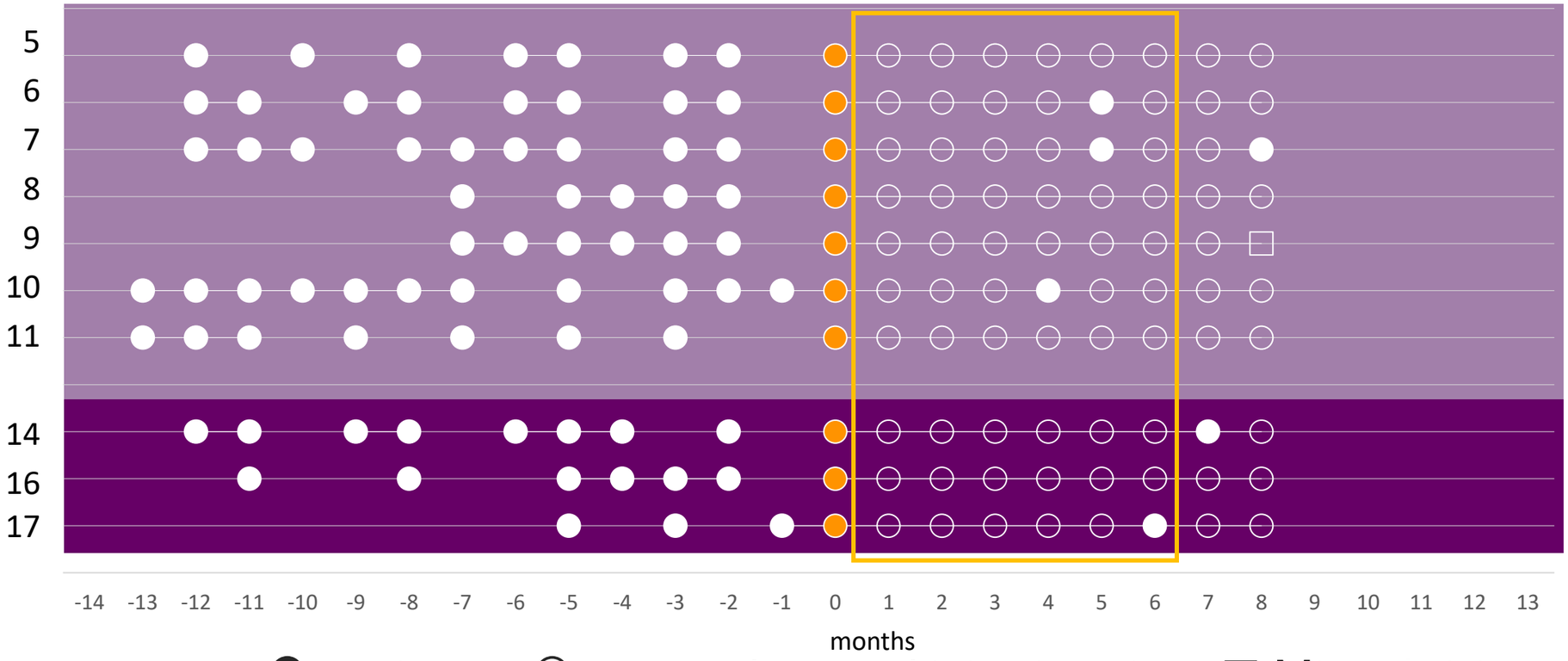
EYP-1901 DAVIO Phase 1 Trial

Retrospective sub-group (n=11) analysis based on entry criteria and anticipated dosing in Phase 2 wet AMD study – 89 % reduction in treatment burden

Subgroup Analysis of DAVIO Medium & High Dose Patients – Using anticipated Ph2 OCT Entry Criteria

SOC Anti-VEGF Injections Before and After Treatment

SoC (Anti-VEGF) + EYP-1901



Reduction in Treatment Burden of 89 % overall at 8 mos

Mid dose (n=7)
- 91%

High dose (n=3)
- 85%

● Anti-VEGF ○ No supplemental injection given ☐ Missed visit

Interim data – monitored through 6 months

EYP-1901 - Potential as a “Treat to Maintain” Therapy in wet AMD

1

Induction Treatment

- Start with any standard of care (SoC) VEGF ligand inhibitor
- Provides known initial visual and anatomical gains
- Monthly until dry or until no further improvement - then add EYP-1901 as maintenance regimen - “treat to maintain”

2

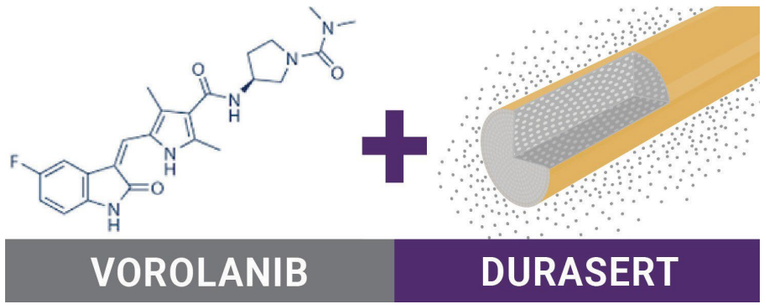
Maintain with EYP-1901

- May result in a less intensive treatment regimen in a majority of wet AMD eyes
- May keep the majority of eyes visually and anatomically stable for six months or longer
- Supplement some eyes with a VEGF ligand inhibitor as needed

Sustained release of vorolanib (TKI) may maintain initial visual acuity and anatomic gains through continuous pan VEGF suppression at the receptor level

EYP-1901 DAVIO Phase 1 Clinical Trial Met all Objectives

Proof of Concept for Intravitreal Vorolanib in Wet AMD



SAFETY

Positive Safety Data

- No ocular SAEs reported
- No drug-related systemic SAEs reported
- Ocular AEs - majority mild and to be expected

EFFICACY and DURABILITY

Positive Efficacy Data

- Stable VA and OCT
- Median time to supplemental anti-VEGF: 6 months

- **76 %** supplemental treatment free up to 4 months
- **53 %** supplemental treatment free up to 6 months
- **41 %** supplemental treatment free up to 9 months

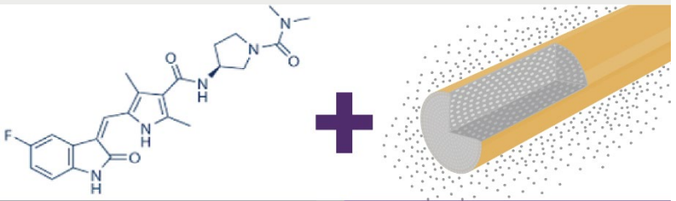
- Clinically significant reduction in treatment burden by **79 %** at 6 months – **75 %** at 8 months

EYP-1901 Phase 2 Clinical Trial Plans

EYEPOINT PHARMACEUTICALS

PIPELINE

EYP-1901



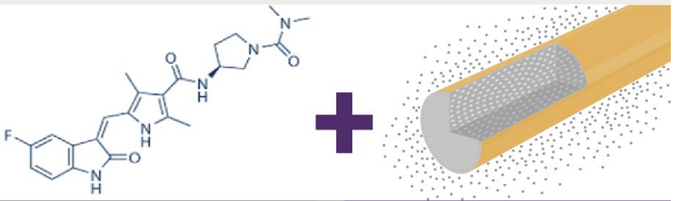
VOROLANIB | DURASERT

Phase 2 Plans

- Phase 2 trial in Wet AMD expected to initiate in Q3 of 2022
  - Two EYP-1901 doses, randomized and controlled (aflibercept)
  - Approximately 144 patients across the three arms
  - Anticipate leveraging Phase 1 clinical findings and observations around biomarkers to refine Phase 2 clinical trial design
- Phase 2 trial in NPDR expected to initiate in 2H 2022
- Phase 2 trial in DME anticipated in 2023

PIPELINE

EYP-1901



VOROLANIB | DURASERT

2022 and Beyond
Positioned to transform the ophthalmology landscape

- Paradigm-shifting potential of DURASERT technology now demonstrated with multiple approved drugs and small molecule agents
  - Ability to utilize technology for small molecule agents with different MOAs
  - Ability to tailor and control dosing frequency for specific indications and patient populations
  - Ability to inject multiple implants with a single injection
- Apply new technological enhancements to DURASERT platform to further expand the scope and scale of new product candidates

Products

FDA Approved Commercial Products

PRODUCTS

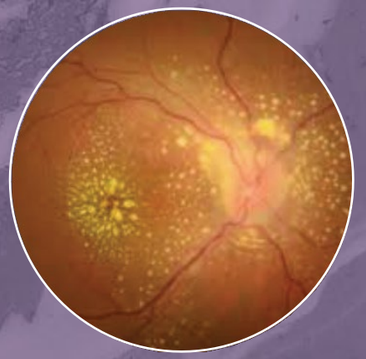
0.18 mg

YUTIQ™

(fluocinolone acetonide intravitreal implant) 0.18 mg

CONTINUOUS CALM IN UVEITIS

Approved for the Treatment of Chronic Non-Infectious Uveitis Affecting the Back of the Eye



- **Commercially launched in U.S. in 2019**
- **Patent protection to August 2027**
- **Constant and stable release of fluocinolone with Durasert helps prevent uveitis flares for up to 3 years**

LICENSE AGREEMENTS

Alimera Sciences, Inc. has rights for non-infectious posterior uveitis in the EMEA

Rights for China, Hong Kong, Taiwan, Macau , Korea and certain SE Asia countries licensed to Ocumension Therapeutics with a royalty on sales payable to EyePoint

PRODUCTS

0.18 mg
YUTIQ™
(fluocinolone acetonide intravitreal implant) 0.18 mg

CONTINUOUS CALM IN UVEITIS

Chronic Non-Infectious Uveitis Causes Blindness With Every Flare

60K–100K patients are suffering from posterior segment uveitis in the U.S.

The need

- Flares can cause blindness
- 30,000 Americans become blind each year because of uveitis
- Uveitis lasts a lifetime and often affects people in middle age
- Conventional treatment is burdensome for patients and caregivers

The YUTIQ answer

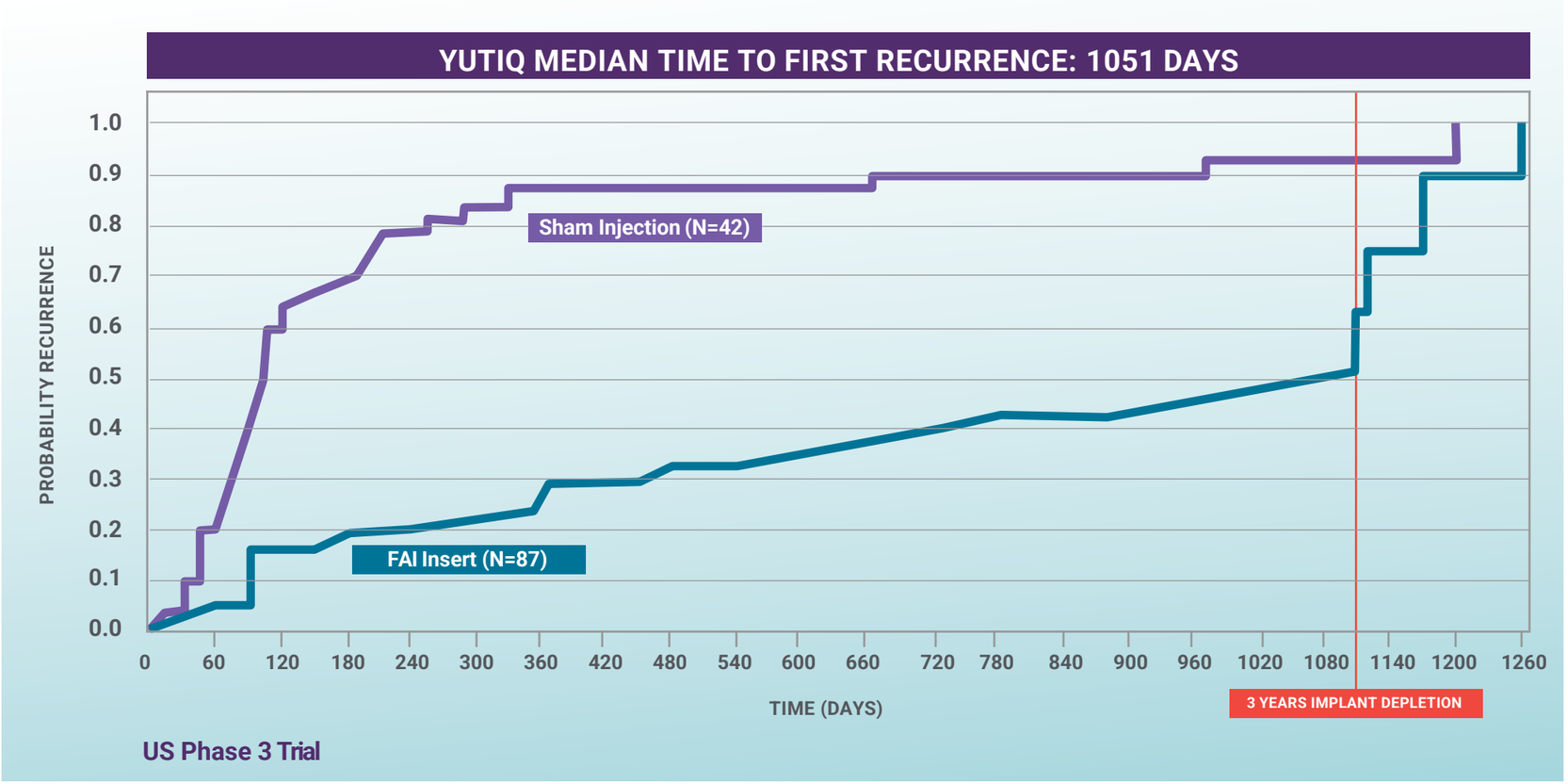
- 3-year continuous treatment in a single injection that controls flares and preserves eyesight
- Simple administration in the physician’s office
- Gives patients and physicians the confidence that comes with three years of assured compliance

0.18 mg
YUTIQ™
(fluocinolone acetonide intravitreal implant) 0.18 mg

CONTINUOUS CALM IN UVEITIS

Continuous 3-year Delivery Limits Blindness-Causing Uveitis Flares

Time to recurrence of uveitis within 36 months



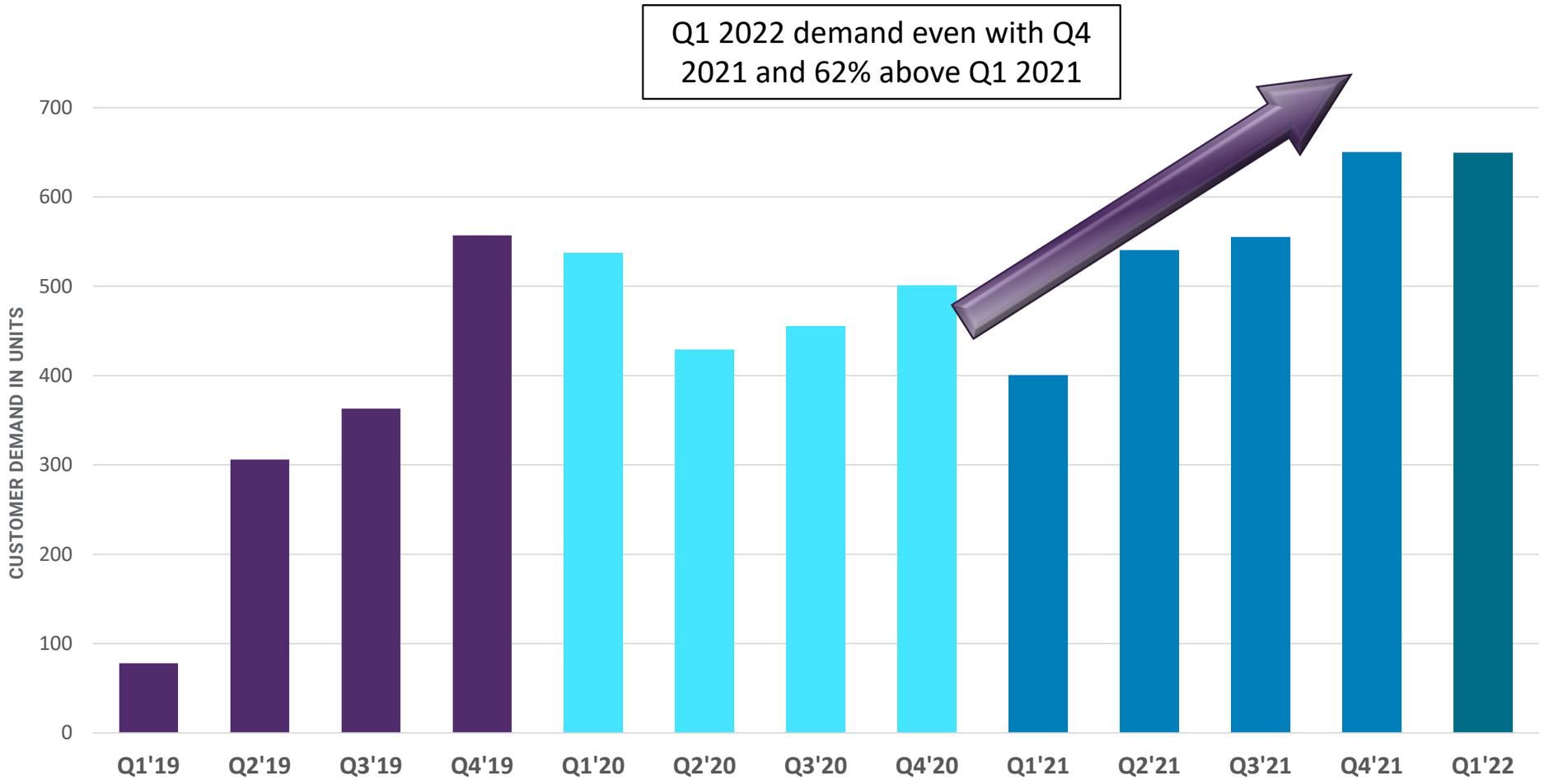
US Phase 3 Trial

Customer demand remains strong in Q1 2022

PRODUCTS

0.18 mg YUTIQ™ (fluocinolone acetonide intravitreal implant) 0.18 mg

CONTINUOUS CALM IN UVEITIS



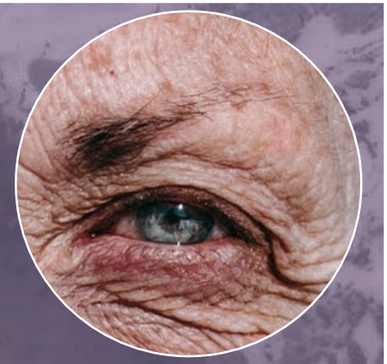
**Customer demand is defined as units purchased by Surgery Centers or physicians from the specialty distributors.*

PRODUCTS

DEXYCU®
(dexamethasone intraocular suspension) 9%

TARGET THE SITE

Treatment of Inflammation Following Ocular Surgery



- Effective January 1, 2022 sales and marketing activities are managed by our commercial alliance partner ImprimisRx
- EyePoint retains NDA and continues to record revenue and COGS for DEXYCU
- Centers for Medicare & Medicaid Services (CMS) extended DEXYCU pass through payment status until December 31, 2022, as part of its Hospital Outpatient Prospective Payment System Final Rule

LICENSE AGREEMENT

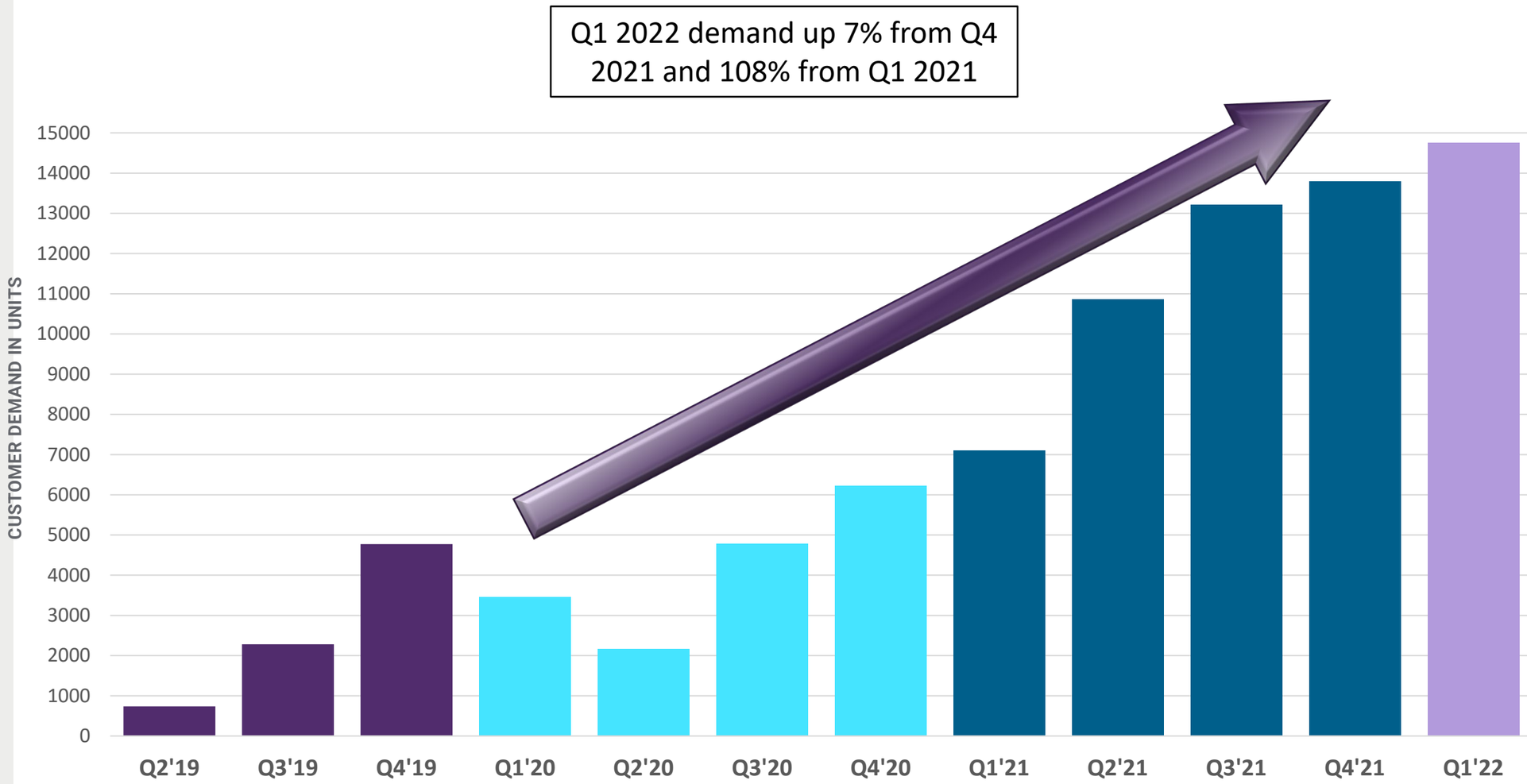
Rights for China, Hong Kong, Taiwan, Macau , Korea and certain SE Asia countries licensed to Ocumension Therapeutics with a royalty on sales payable to EyePoint

Record Customer Demand* in Q1 2022

PRODUCTS

DEXYCU®
(dexamethasone intraocular suspension) 9%

TARGET THE SITE



*Customer demand is defined as units purchased by Surgery Centers or physicians from the specialty distributors

DELIVERING INNOVATION TO THE EYE

Financial Summary

Solid Cash Position and Growing Revenues Supporting Cash Runway

- $191 million of cash and investments on March 31, 2022
- $40 million of short and long-term debt on March 31, 2022
- $9.0 million of net product revenues in 1Q22, a 32% increase over the same period last year; commercial franchise position to break-even in 2022
- Cash runway into 2H of 2024 at current plan

COMPANY OVERVIEW

Compelling Pipeline Leverages Proven Durasert® Technology

Compelling pipeline focused on retinal disease

- EYP-1901 – vorolanib (TKI) in bioerodible Durasert
  - Positive safety and efficacy data from Phase 1 DAVIO clinical trial
  - Phase 2 trial in wet AMD to begin in Q3 2022 with top line data anticipated in 2H 2023
  - Phase 2 trial in diabetic retinopathy to begin in 2H 2022, diabetic macular edema in 1Q 2023
- Additional molecules and MOAs under evaluation

Durasert® - proven intravitreal (IVT) drug delivery

- Sustained local drug delivery with a single in-office IVT injection
- Constant (zero-order kinetics), stable release of drug over months or years
- Safely administered to thousands of patients' eyes across four FDA approved products

Strong Balance Sheet

- $191 million in cash and investments on March 31, 2022
- Cash runway into 2H of 2024 under current plan
- Commercial franchise, YUTIQ and DEXYCU, positioned for 2022 break-even

*non-erodible

Delivering Innovation to the Eye

EyePoint®
PHARMACEUTICALS