Delivering Innovation to the Eye

Investor Presentation

June 2021

EyePoint® PHARMACEUTICALS

Forward Looking Statements

Various statements made in this presentation are forward-looking, 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 potential benefits of our partnerships and strategic alliances with other companies, as well as the timing and clinical development of our product candidates, including EYP-1901; the potential for EYP-1901 as a vital, novel twice-yearly treatment for wet age-related macular degeneration, diabetic retinopathy and retinal vein occlusion; preliminary financial information as of December 31, 2020; and our longer term financial and business goals, 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 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 ability to successfully produce sufficient commercial quantities of YUTIQ® and DEXYCU® and to successfully commercialize YUTIQ and DEXYCU in the U.S.; our ability to sustain and enhance an effective commercial infrastructure and enter into and maintain commercial agreements for YUTIQ and DEXYCU; the development of our YUTIQ line extension shorter-duration treatment for non-infectious uveitis affecting the posterior segment of the eye; the success of current and future license agreements, including our agreements with Ocumension Therapeutics and Equinox Science; termination or breach of current license agreements, including our agreements with Ocumension Therapeutics and Equinox Science; 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 products; market acceptance of products; effects of guidelines, recommendations and studies; 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; the potential for our preliminary financial information to change in connection with the finalization of our financial results for the fourth quarter and full year 2020; 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

Proven technology driving pipeline growth

Compelling pipeline focused on retinal disease

- EYP-1901 - potential twice yearly treatment for wet AMD, diabetic retinopathy and retinal vein occlusion
- YUTIQ50 – potential twice yearly treatment for posterior uveitis
- Durasert® R&D collaborations

Durasert® - FDA validated drug delivery platform

- Sustained (zero-order kinetics) local delivery of drug product
- Provides constant and stable release of therapeutics in the eye over weeks, months or years
- Administered safely to thousands of patients' eyes across four FDA approved products including YUTIQ®

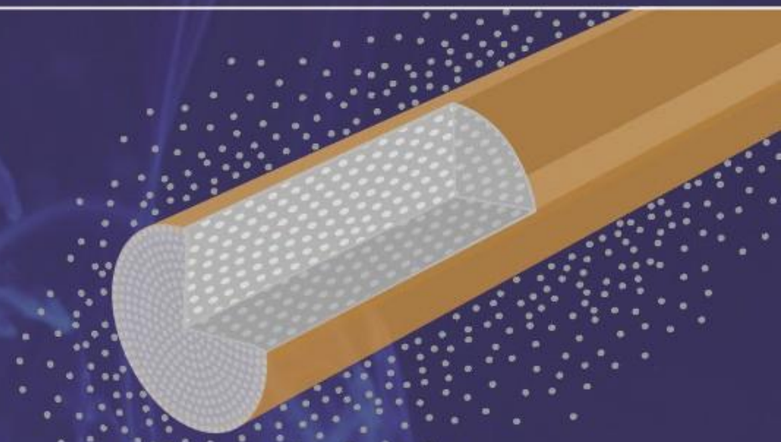
Commercializing two FDA-approved products - YUTIQ® and DEXYCU®

- Solid Q1 net product revenues and positioned for 2021 growth as COVID-19 restrictions ease across the US

TECHNOLOGY

DURASERT® Platform

Proven sustained release intraocular drug delivery



TECHNOLOGY

DURASERT®
Proven sustained release delivery

Four FDA-approved products with multiple programs in development

- Single intravitreal injection
- Continuous, stable release to the back of the eye provides consistent and reliable drug delivery over weeks, months or years
- Simple administration in physician's office

Approved products/Indications

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

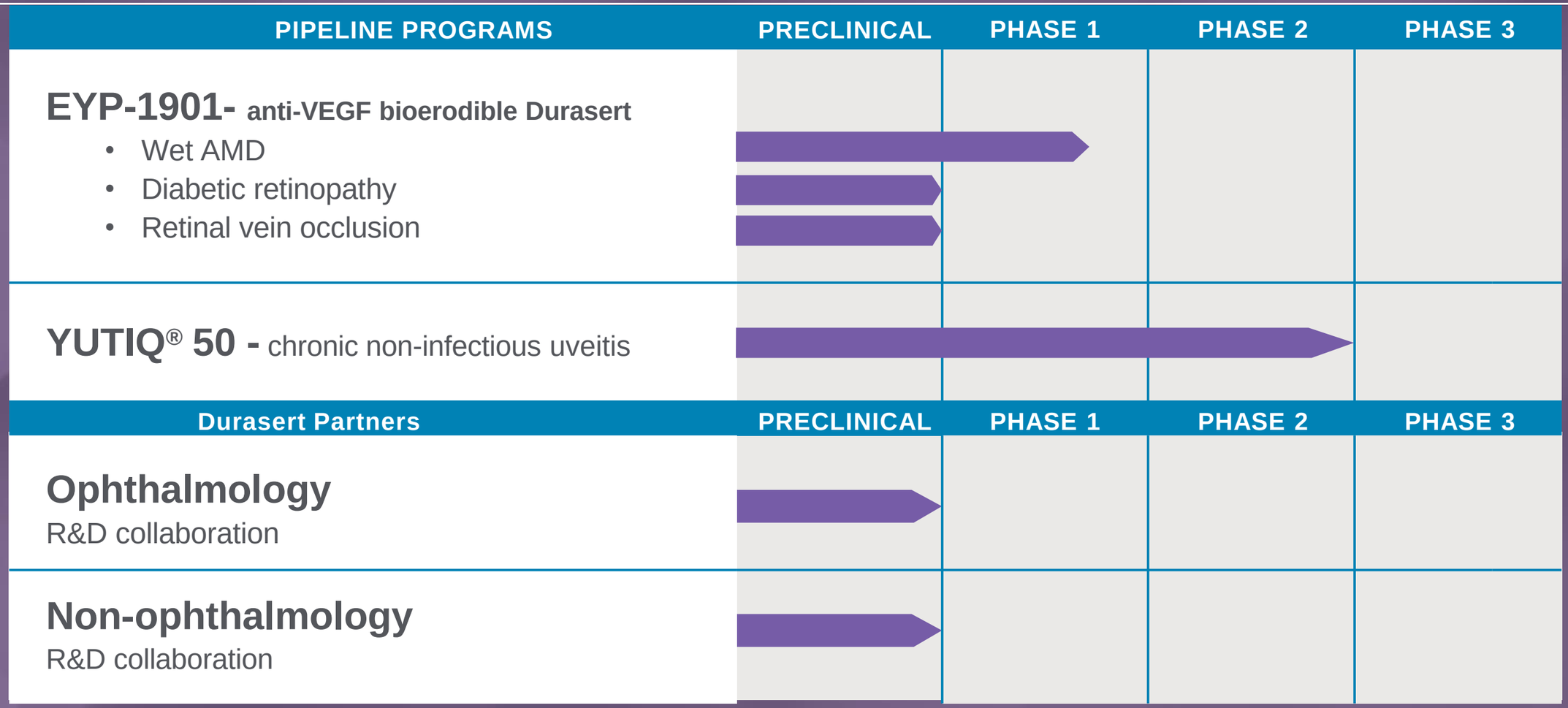
Development Candidates

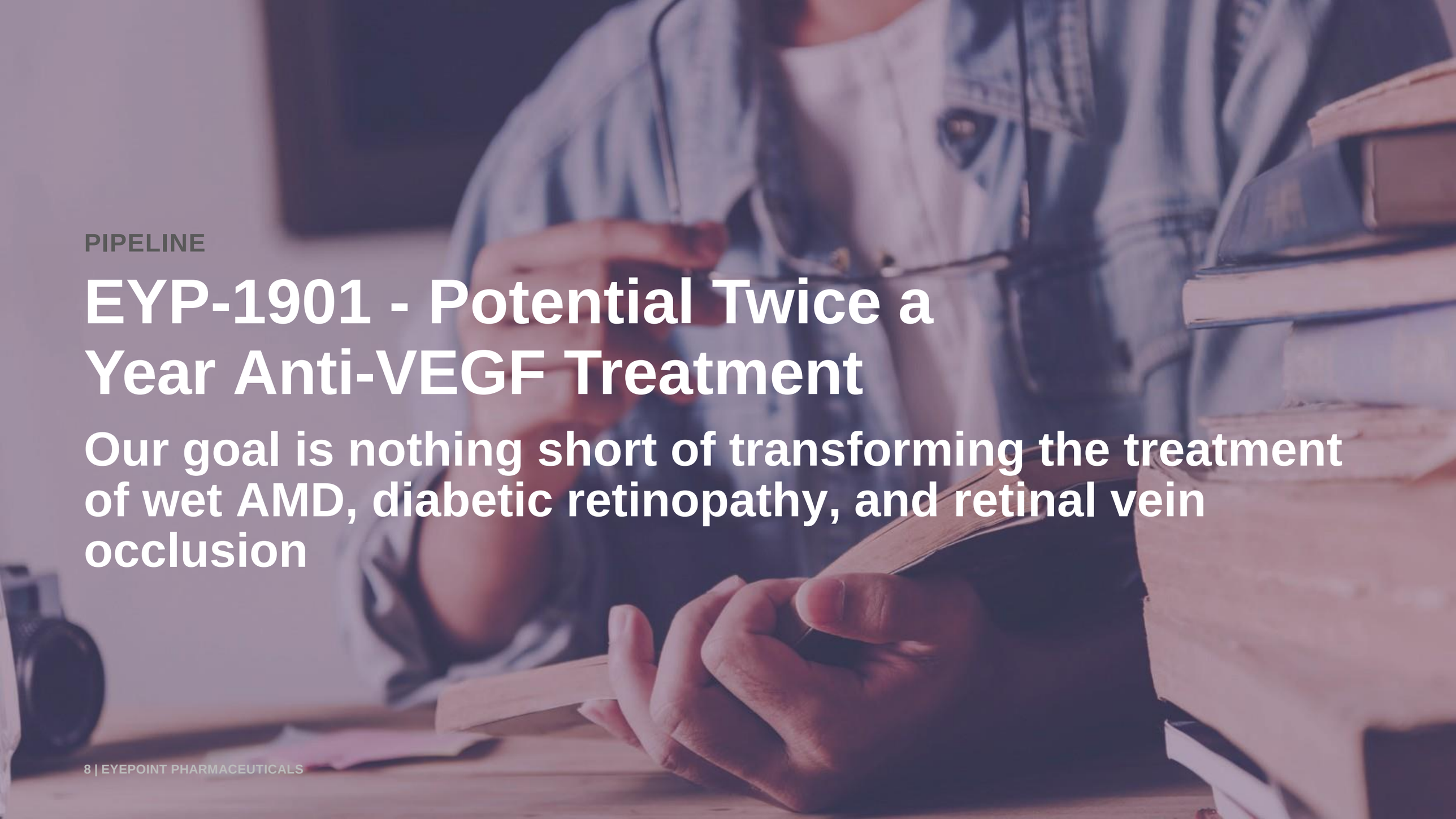
- EYP-1901 for Wet AMD
- YUTIQ® 50 for Posterior Segment Uveitis
- Partner programs

PIPELINE

Building on a Proven Platform

Retinal disease focused pipeline





PIPELINE

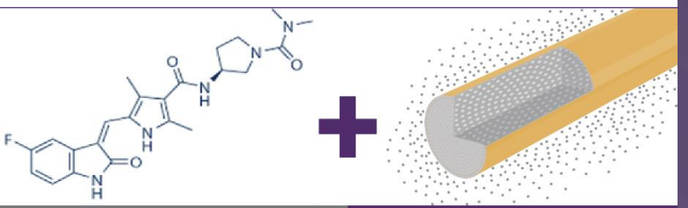
EYP-1901 - Potential Twice a Year Anti-VEGF Treatment

Our goal is nothing short of transforming the treatment of wet AMD, diabetic retinopathy, and retinal vein occlusion

VEG

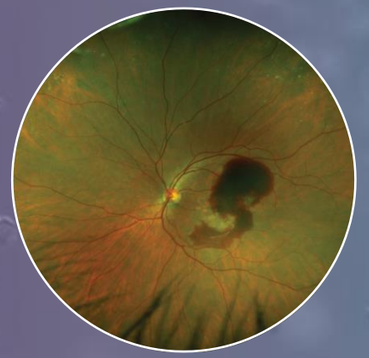
PIPELINE

EYP-1901



VOROLANIB | DURASERT

Opportunity to transform the treatment of wet AMD



The need...

Currently, wet AMD patients often lose vision despite anti-VEGF therapy due to undertreatment

The EYP-1901 solution...

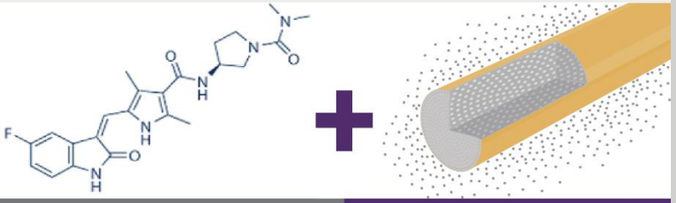
Potential twice yearly in-office injection of anti-VEGF therapy

- Anti-VEGF therapy (vorolanib) delivered via intravitreal injection using bioerodible Durasert
- Sustained, stable release may lead to better visual outcomes through steady receptor blocking

VEGF-vascular endothelial growth factor

PIPELINE

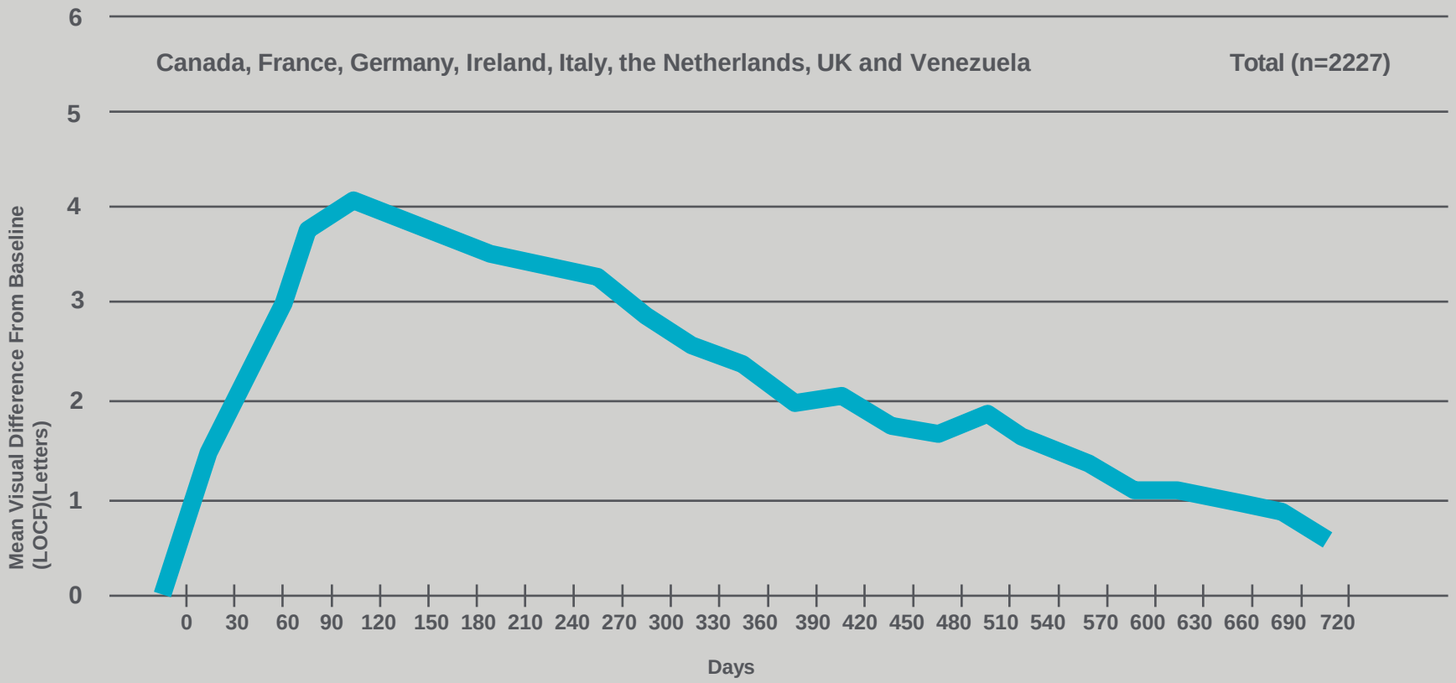
EYP-1901



VOROLANIB + DURASERT

Real world need... today's wet AMD treatments still result in vision loss over time

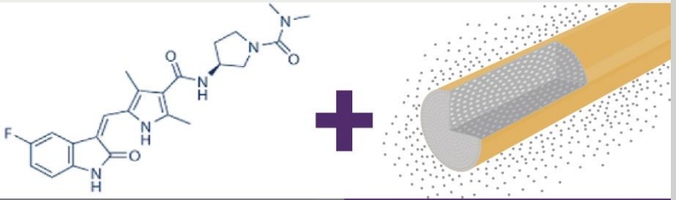
RETROSPECTIVE, OBSERVATIONAL STUDY IN 2,227 PATIENTS WITH WET AMD



Holz FG, et al. Br J Ophthalmol 2015;99:220–226. doi:10.1136/bjophthalmol-2014-305327

PIPELINE

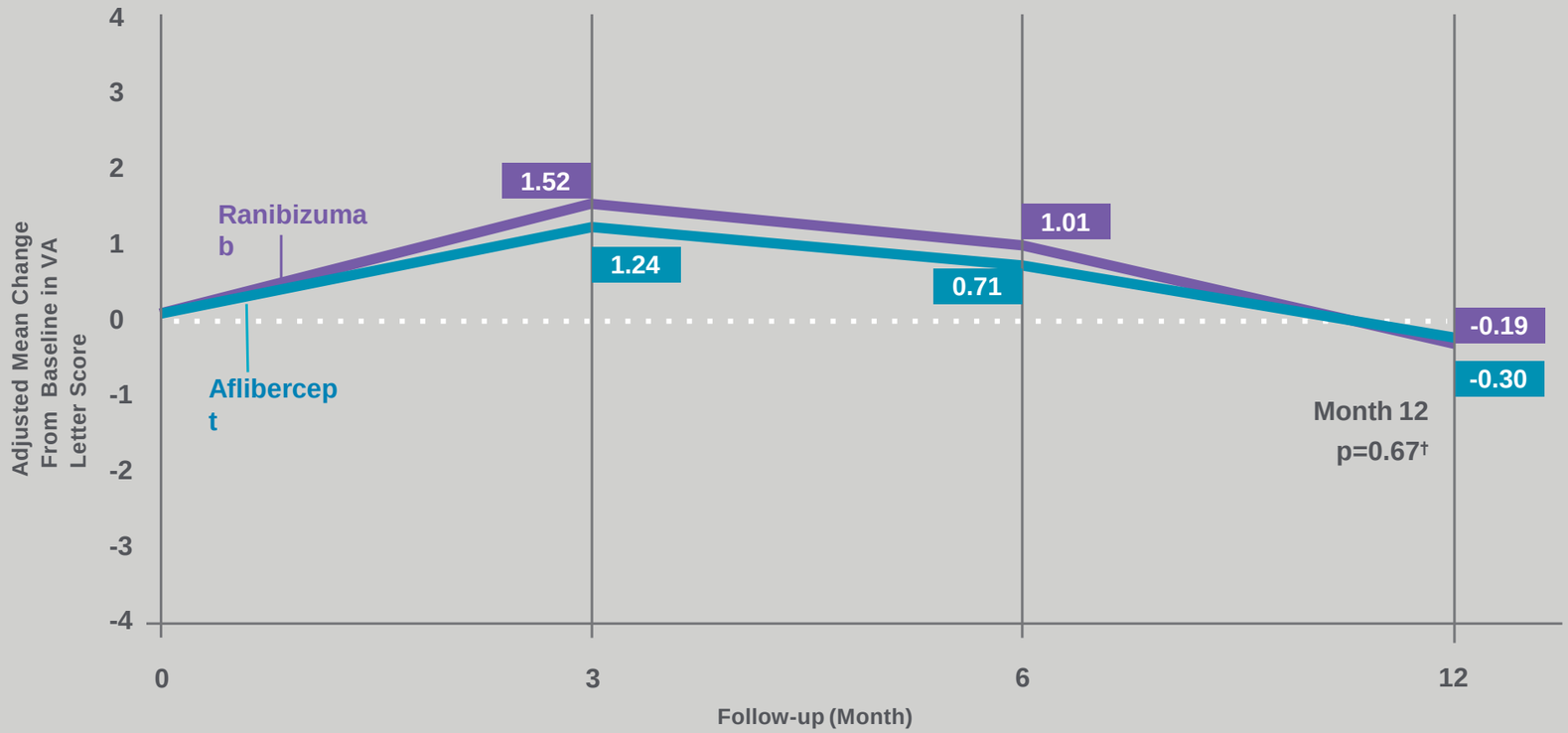
EYP-1901



VOROLANIB | DURASERT

...including real world data from the U.S.

RETROSPECTIVE STUDY OF 3350 RANIBIZUMAB AND 4300 AFLIBERCEPT TREATMENT-NAIVE EYES WITH WET AMD

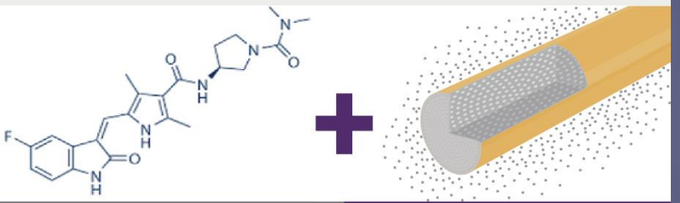


Lotery et al., Eye (2017) 31, 1697–1706

V

PIPELINE

EYP-1901



VOROLANIB | DURASERT

The EYP-1901 solution

EYP-1901

- Intravitreal delivery of vorolanib using a bioerodible formulation of Durasert®

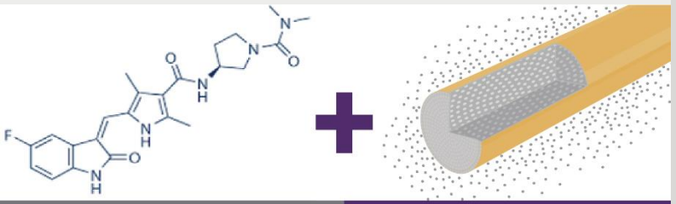
Vorolanib

- Tyrosine kinase inhibitor (TKI) studied as an oral therapy for wet AMD through Phase 2 with strong clinical signal and no significant ocular adverse events
- Blocks all 3 isoforms of VEGFR, the main driver of the proliferation of blood vessels that are the hallmark of wet AMD

VEGFR- vascular endothelial growth factor receptor

PIPELINE

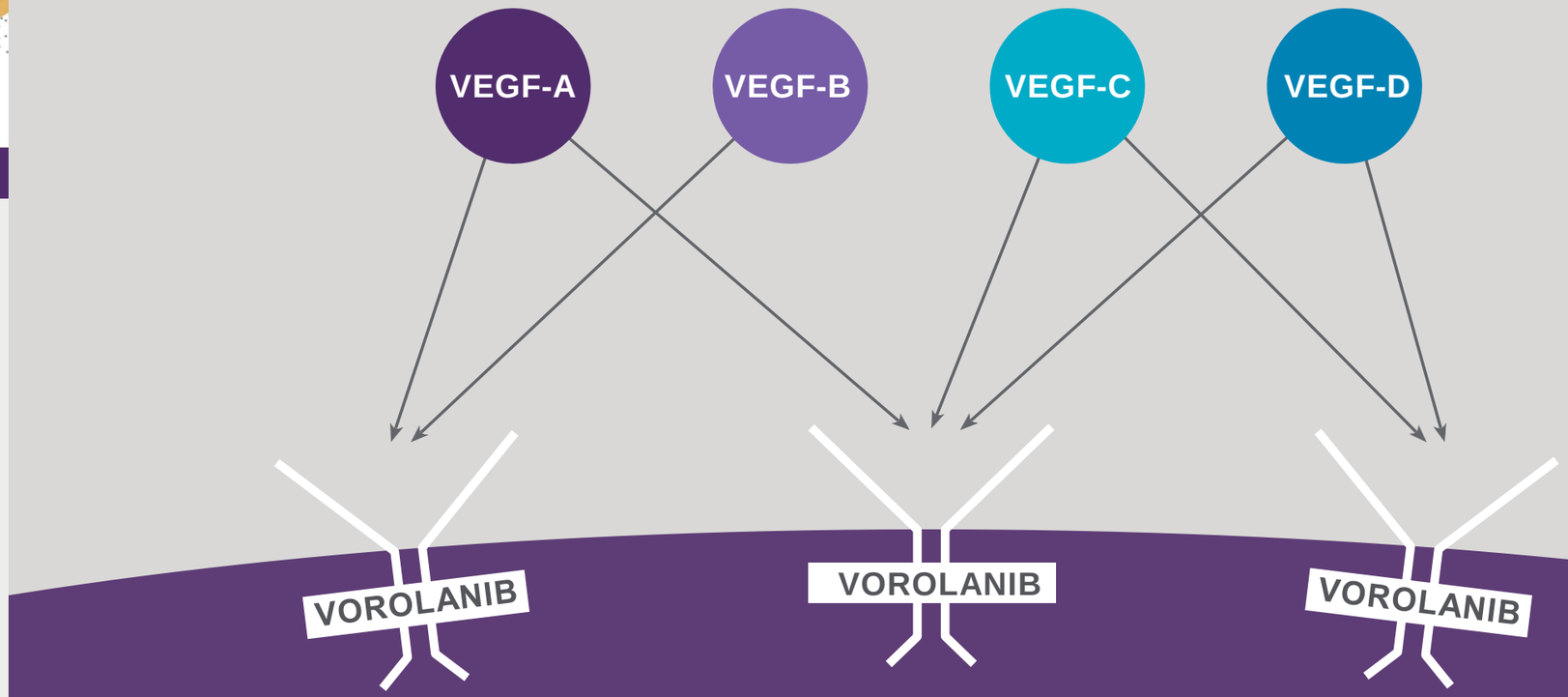
EYP-1901



VOROLANIB | DURASERT

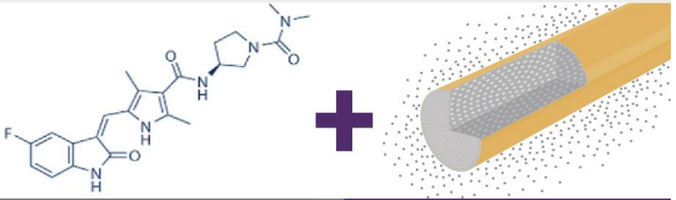
Effective blocking of VEGFR prevents neovascularization and loss of vision

VEGF SIGNALING PATHWAYS



PIPELINE

EYP-1901



VOROLANIB | DURASERT

A potent inhibitor of VEGFR

Vorolanib blocks VEGFR2 at the same level as sunitinib, a proven anti-VEGF therapy

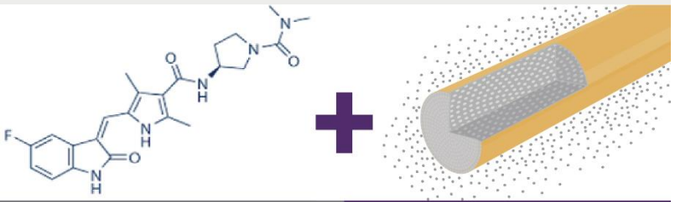
BIOCHEMICAL SELECTIVITY (IC50, ng/mL)	
SUNITINIB	22.9
VOROLANIB	22.9

The inhibitor constant (Ki) of sunitinib for VEGFR is reported to be low (5 ng/mL), an indication of strong inhibition. Since Ki is related to IC50, similar inhibition Ki is expected for vorolanib.

IC50 – half maximal inhibitory concentration
Head-to-head study completed by Tyrogenix

PIPELINE

EYP-1901



VOROLANIB | DURASERT

EYP-1901 pre-clinical results

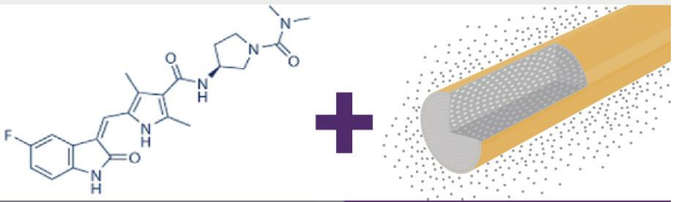
- 6-month rabbit GLP toxicology completed with no unexpected safety findings
- Efficacy and preliminary safety study completed in a laser CNV mini pig model

  Results: dose-related activity and no observed toxicity
- Non-GLP rabbit PK and safety study demonstrated drug levels in vitreous and retina/choroid significantly above the IC50 for VEGFR2

CNV- choroidal neovascularization
GLP – good laboratory practice
PK - pharmacokinetics

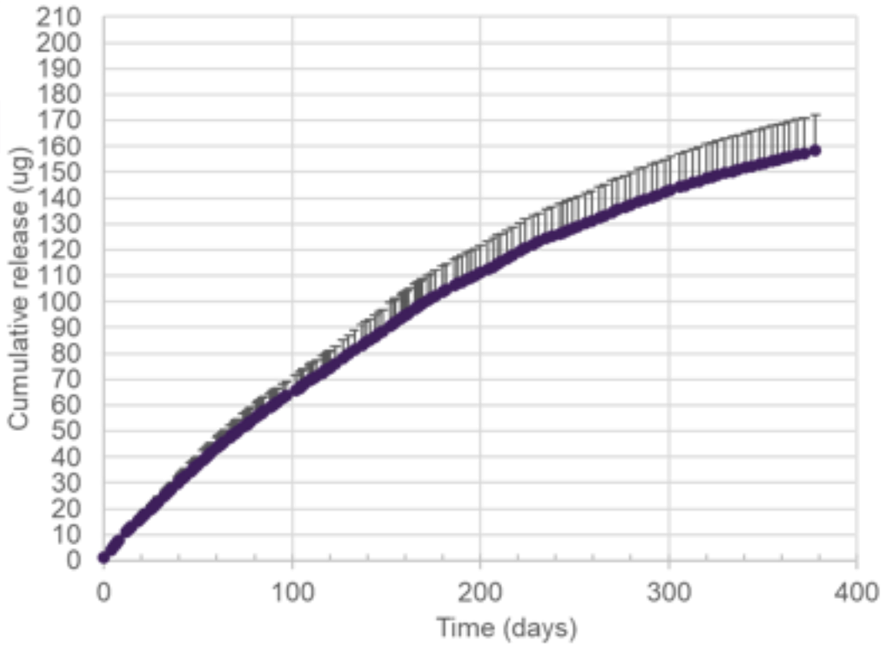
PIPELINE

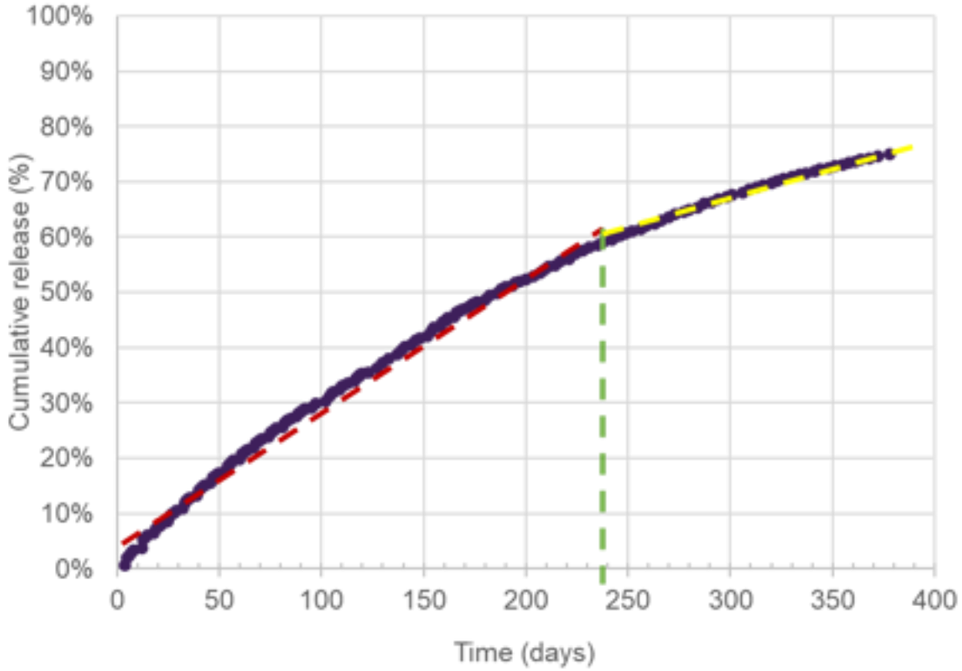
EYP-1901



VOROLANIB | DURASERT

EYP-1901 in-vitro release of vorolanib in a single insert

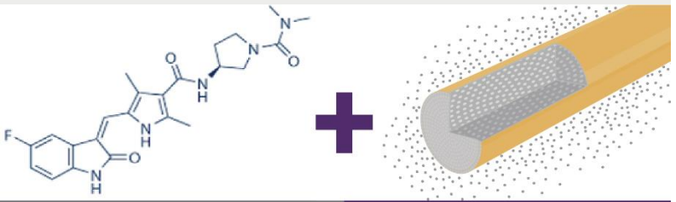




Zero order release through ~8 months followed by new zero order rate through at least 12 months

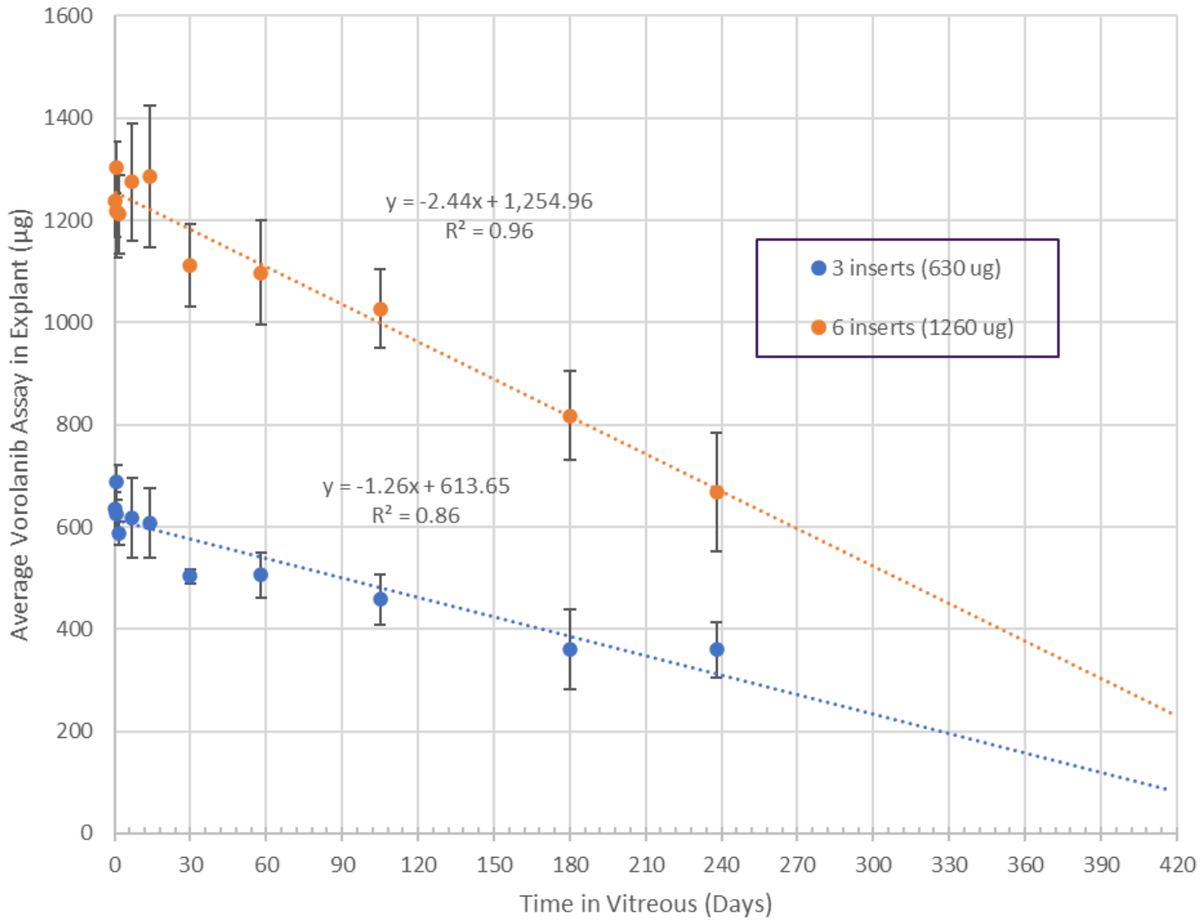
PIPELINE

EYP-1901



VOROLANIB | DURASERT

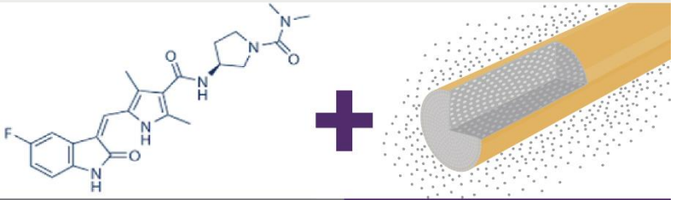
In-vivo release of vorolanib in rabbits measured over ~8 months



Linear decrease in residual drug in inserts indicates zero order drug release

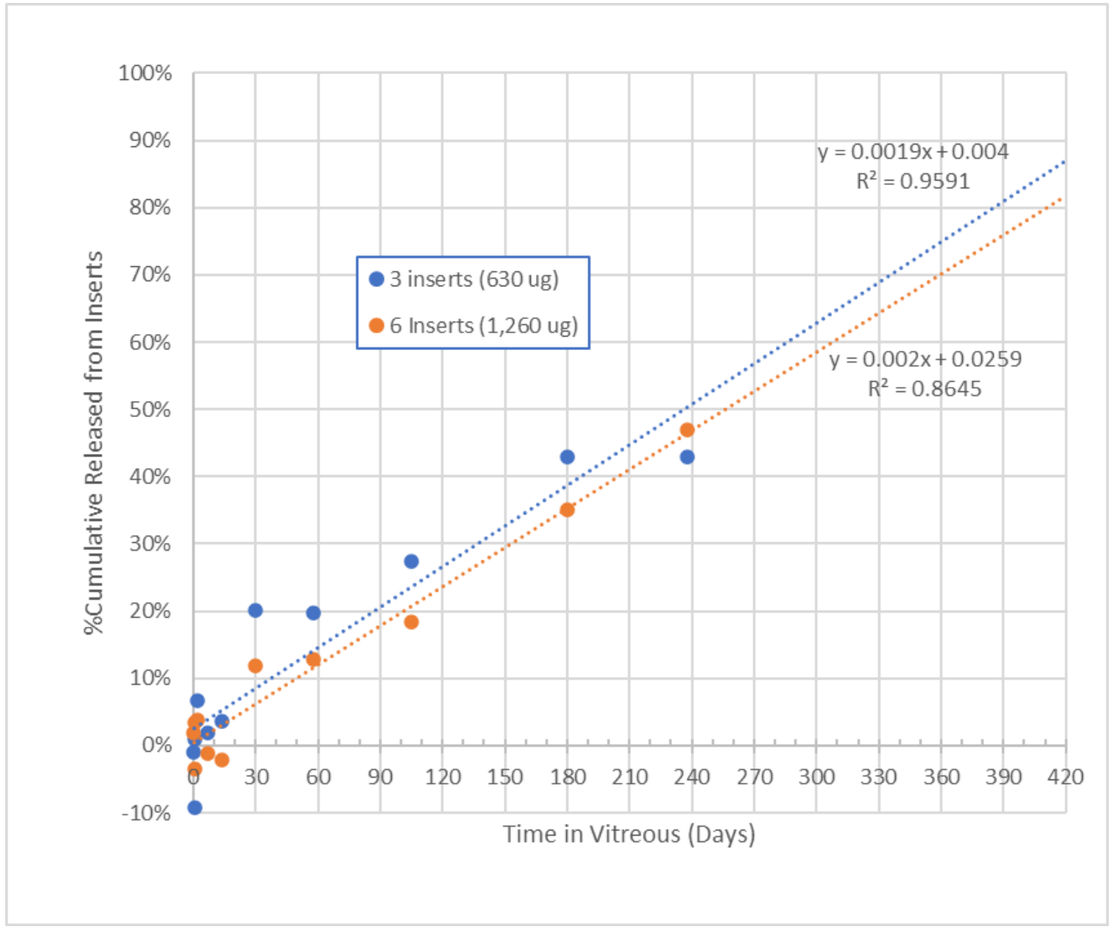
PIPELINE

EYP-1901



VOROLANIB | DURASERT

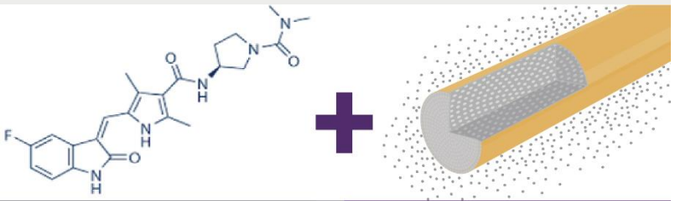
In-vivo cumulative % release of vorolanib in rabbits measured over ~8 months



R^2 for both doses indicates zero order release of drug at different dosing levels

PIPELINE

EYP-1901



VOROLANIB | DURASERT

Oral vorolanib clinical results – Phase 1

Demonstrated clinical activity in wet AMD

Phase 1 trial design

- Open label, 24 weeks, dose escalation, no control, oral delivery; 80% of eyes enrolled previously treated; 4 eyes treatment naïve
- N=35; 25 completers

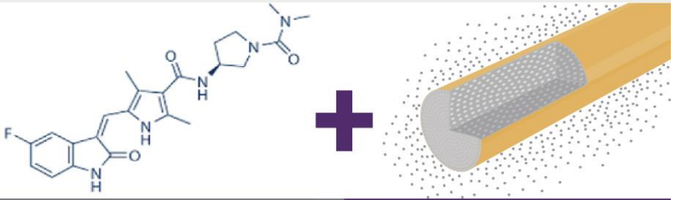
Phase 1 results

- BCVA was maintained to within 4 letters of baseline at the 24-week endpoint, or improved in all but 1 participant
- 60% (15/25) of patients required no rescue injection while on oral vorolanib therapy
- Excluding the 50 mg low dose, 72% of completers required no Anti-VEGF injection through the duration of the study (6 months)
- Mean OCT thickness in completers was reduced by -50 +/- 97 µm; Mean OCT thickness in treatment-naïve patients was reduced by ~80 µm

OCT – ocular coherence tomography
Study performed by Tyrogenex

PIPELINE

EYP-1901



VOROLANIB | DURASERT

Oral vorolanib clinical activity in wet AMD Phase 2 trial

Less rescue vs placebo for all doses with no ocular toxicity

For subjects followed ≥ 6 months	Placebo n=33	50 mg n=34	100 mg n=30	200 mg n=26
Median number of anti-VEGF injections*	9.0	6.1	5.8	4.6
Percent of Patients w/ no rescue	2.6	7.5	10.3	20.5

Strict pre-defined rescue criteria with anti-VEGF therapy

- Any increase in fluid on OCT compared to screening visit 2 (~14 days after an IVT injection)
- New or increased macular hemorrhage by fundus photography

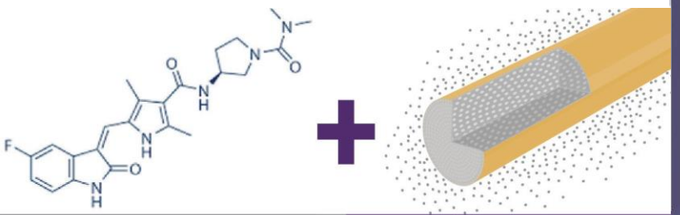
In the placebo group, 12.5% of subjects with unilateral disease at baseline developed exudative AMD in their fellow eyes by 52 weeks, compared with 3.8% (1/26), 0%(0/27) and 0%(0/23) in the 50 mg, 100 mg, and 200 mg groups, respectively.

*** Normalized for number of months on study**
Study performed by Tyrogeix

EYP-1901 Phase 1 Trial

PIPELINE

EYP-1901



VOROLANIB + DURASERT

Phase 1 DAVIO wet AMD clinical trial design

1-2 weeks following last injection

ENROLLMENT

Patients with wet AMD responsive to previous anti-VEGF therapy

Open label, dose escalation, no control arm (results to be monitored on an ongoing basis)

- DOSE A
- DOSE B
- DOSE C

RESULTS

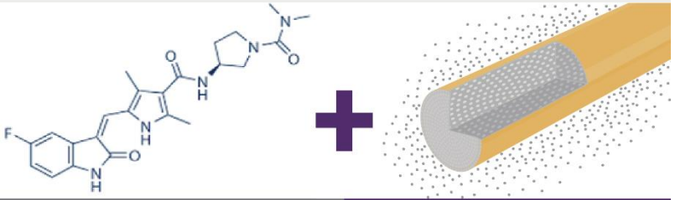
- 6 month readout
- 12 month readout

Rescue with anti-VEGF therapy if necessary

Primary endpoint is safety. Secondary endpoints are BCVA and central subfield

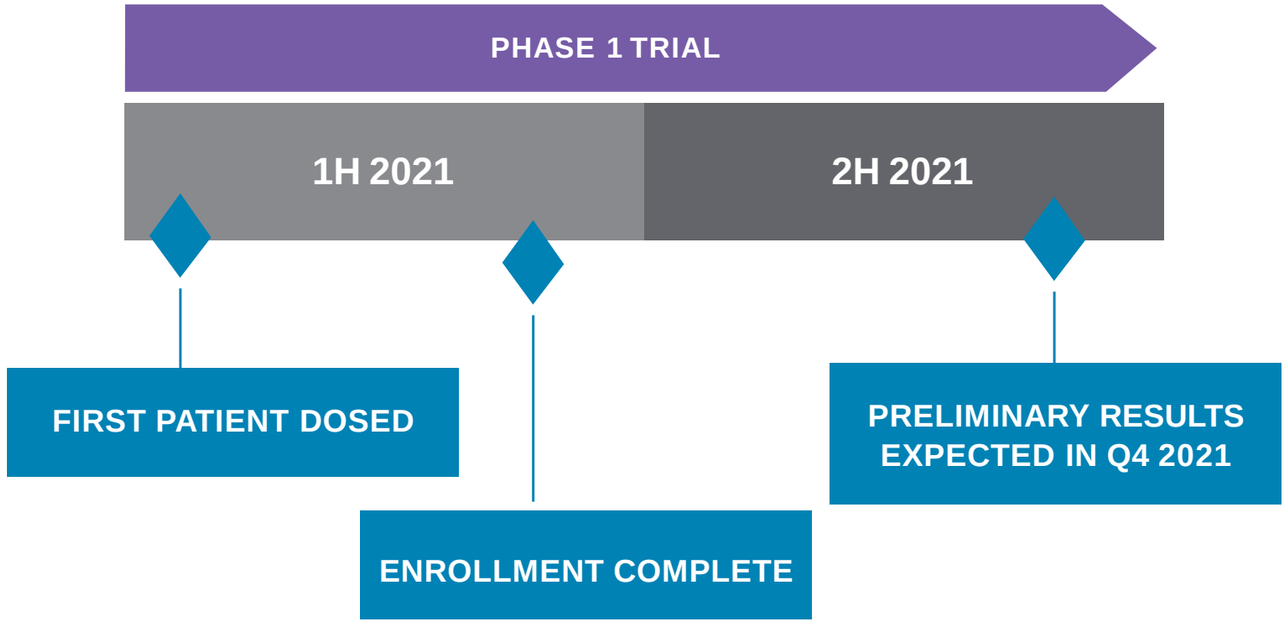
PIPELINE

EYP-1901



VOROLANIB | DURASERT

Phase 1 DAVIO wet AMD clinical trial underway with enrollment completed in May 2021



UPDATE

- Enrollment completion announced May 25, 2021
- 17 patients in total dosed with EYP-1901
- On track for Q4 interim data read-out

PRODUCTS

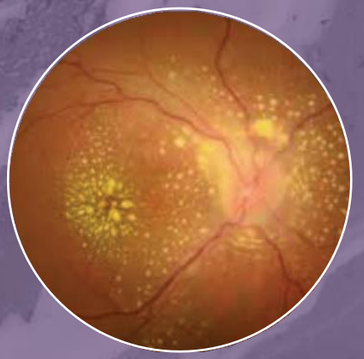
FDA Approved Commercial Products

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 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 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

The YUTIQ answer

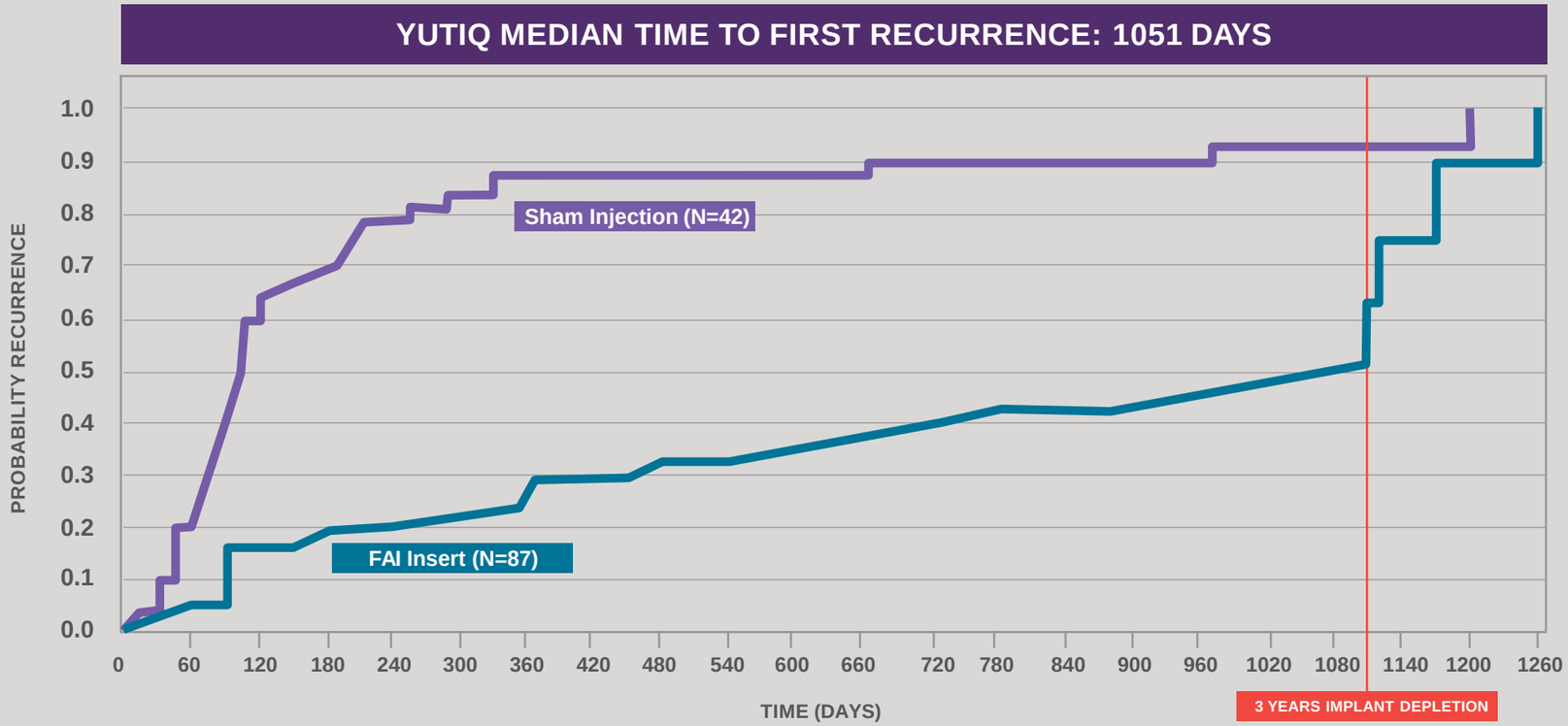
- 3-year continuous treatment in a single injection that controls flares and preserves eyesight
- Simple administration in the physician’s office
- Gives patients and physicians the confidence that comes with three years of assured compliance

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



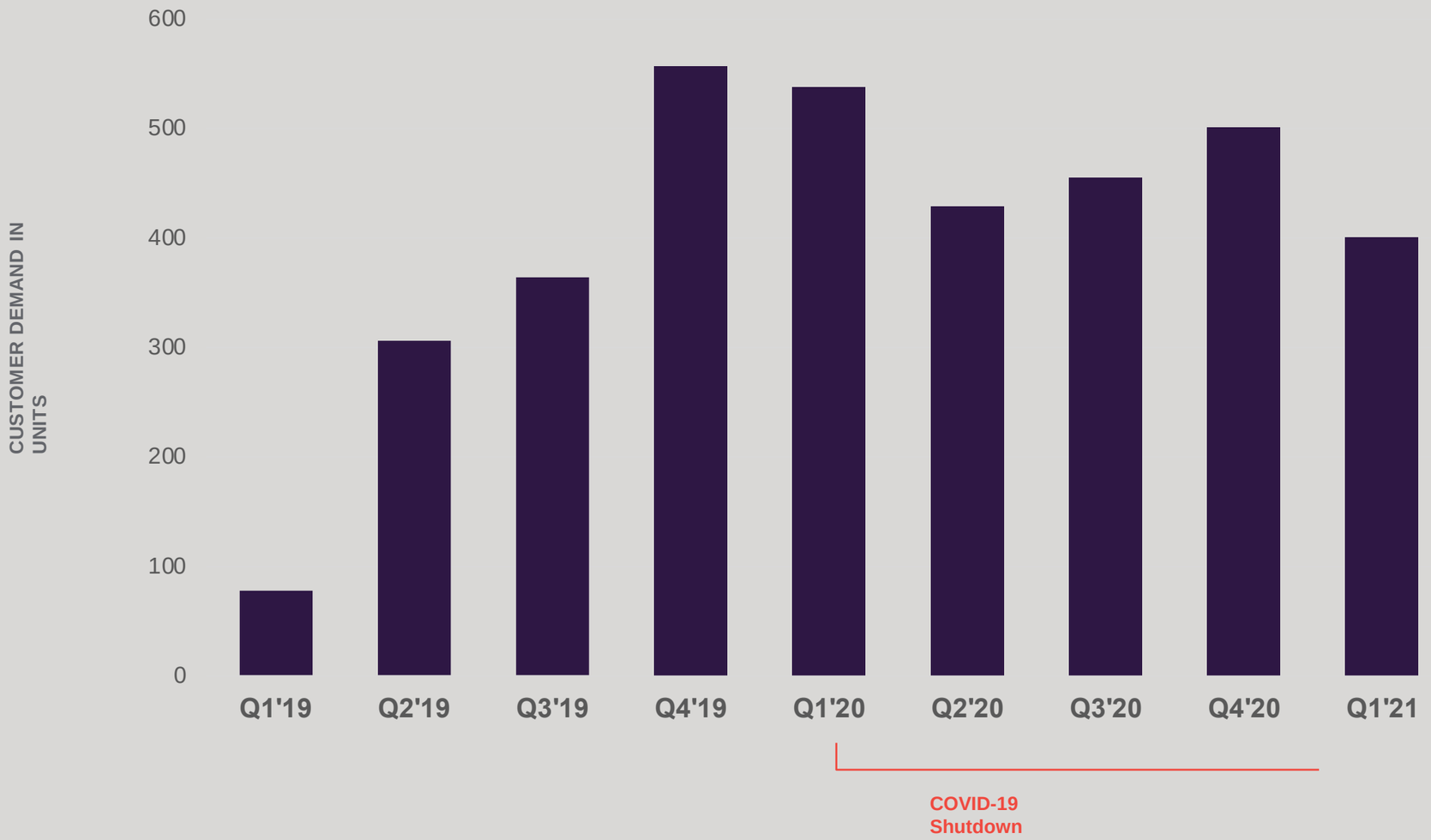
US Phase 3 Trial

PRODUCTS

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

CONTINUOUS CALM IN UVEITIS

Customer demand returning from COVID shutdowns



PRODUCTS

DEXYCU®
(dexamethasone intraocular suspension) 9%

TARGET THE SITE

Treatment of inflammation following ocular surgery

- **Single long-lasting injectable treatment compared to low compliance eyedrop regimen**
- **Effective in preventing inflammation after cataract surgery with proven safety record**
- **Co-promoted with ImprimisRX, an established commercial organization in the cataract space**

LICENSE AGREEMENT

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

PRODUCTS

DEXYCU®
(dexamethasone intraocular suspension) 9%

TARGET THE SITE

The U.S. cataract surgery market is large and growing

3.8 million cataract surgeries in 2018

The need

- As the baby boom generation ages, cataract surgery will become even more common

The DEXYCU answer

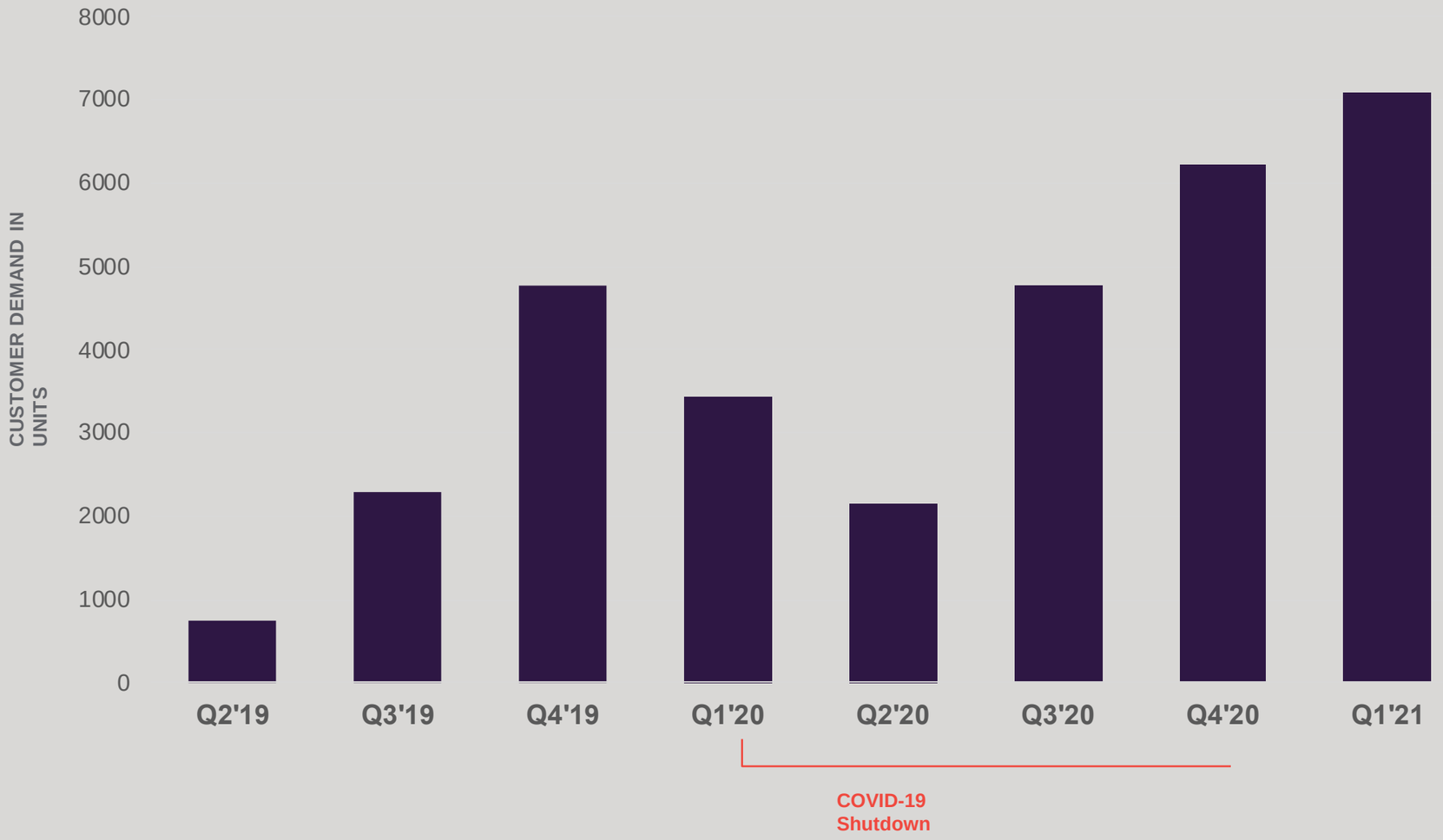
- Today, eyedrops are the most common treatment after cataract surgery
- Patients forget to take their eye drops, leading to unnecessary complications
- Dexycu is injected into the eye at the time of surgery so compliance is not an issue

PRODUCTS

DEXYCU®
(dexamethasone intraocular suspension) 9%

TARGET THE SITE

Customer demand returning from COVID shutdowns



DELIVERING INNOVATION TO THE EYE

Financial Summary

Solid cash position and growing revenues

- $138.5 million of Cash on March 31, 2021, funds operations through Q4 2022
- $6.8 million net product revenues in Q1 2021, a 45% increase over Q1 2020
- 2020 total revenues of $34.4 million, including $20.8 million of net product revenue
  - 2019 Total revenues of $20.3 million including $16.8 million on net product revenues

Delivering Innovation to the Eye

EyePoint®
PHARMACEUTICALS