



(NASDAQ: OCUL)

OCULAR THERAPEUTIX

BUILDING A NEW STRATEGIC IN OPHTHALMOLOGY

August 2022

FORWARD LOOKING STATEMENTS

Any statements in this presentation about future expectations, plans, and prospects for the Company, including the commercialization of DEXTENZA®, ReSure® Sealant, or any of the Company's product candidates; the commercial launch of, and the effectiveness of and amounts of reimbursement codes for, DEXTENZA; the conduct of post-approval studies of and compliance with related labeling requirements for DEXTENZA and ReSure Sealant; the Company's sales and marketing strategy; the development and regulatory status of the Company's product candidates, such as the Company's development of and prospects for approvability of OTX-CSI for the chronic treatment of dry eye disease, OTX-DED for the short-term treatment of the signs and symptoms of dry eye disease, OTX-TIC for the treatment of primary open-angle glaucoma or ocular hypertension, and OTX-TKI for the treatment of retinal diseases including wet AMD; the Company's plan to advance the development of its product candidates; the ongoing development of the Company's extended-delivery hydrogel depot technology; the size of potential markets for its product candidates; the potential utility of any of the Company's product candidates; the potential benefits and future operations of Company collaborations, including any potential future costs or payments thereunder; projected net product revenue, in-market sales and other financial and operational metrics of DEXTENZA and ReSure Sealant; potential market sizes for indications targeted by the Company's product candidates, if approved; the expected impact of the COVID-19 pandemic on the Company and its operations; 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, ReSure Sealant or any product candidate that receives regulatory approval, including the conduct of post-approval studies, the ability to successfully develop and commercialize products for the ophthalmology office setting, the ability to retain regulatory approval of DEXTENZA, ReSure Sealant or any product candidate that receives regulatory approval, the ability to maintain and the sufficiency of product, procedure and any other reimbursement codes for DEXTENZA, the initiation, timing, conduct and outcomes of clinical trials, whether clinical trial data such as the data reported in this presentation will be indicative of the results of subsequent clinical trials, availability of data from clinical trials and expectations for regulatory submissions and approvals, the Company's ability to enter into and perform its obligations under collaborations and the performance of its collaborators under such collaborations, the Company's scientific approach and general development progress, the availability or commercial potential of the Company's product candidates, the Company's ability to meet supply demands, the Company's ability to generate its projected net product revenue and in-market sales on the timeline expected, if at all, the sufficiency of cash resources, the Company's existing indebtedness, the ability of the Company's creditors to accelerate the maturity of such indebtedness upon the occurrence of certain events of default, the severity and duration of the COVID-19 pandemic including its effect on the Company's revenues and relevant regulatory authorities' operations, any additional financing needs 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 agents in development. Their efficacy and safety profiles have not been established, and they have not been approved for marketing by the FDA.

OCULAR THERAPEUTIX AIMS TO CREATE A NEW STANDARD OF CARE IN OPHTHALMOLOGY

OBSOLETE EYE DROPS



Video Courtesy Dr. Alan Robin

Provide physician-administered, preservative-free, and compliance-improved treatments for ophthalmic diseases that improve outcomes and practice economics

OBSOLETE IMMEDIATE RELEASE INJECTIONS



Video Courtesy Dr. Leonid Skorin

Create more durable treatments for retinal diseases that minimize the need for multiple injections into the eye resulting in better compliance and potentially better preservation of vision

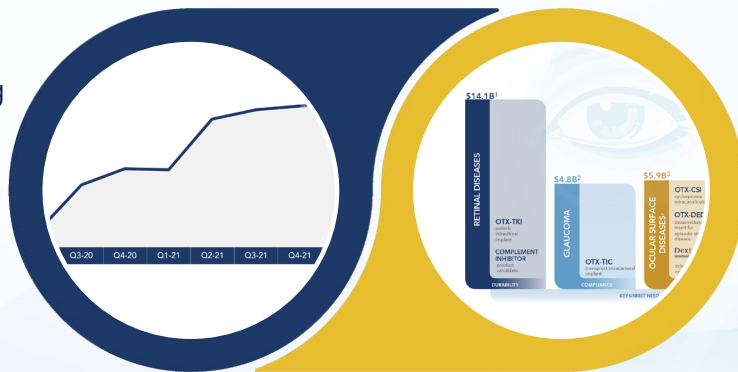
OPHTHALMOLOGY IS RIPE FOR DISRUPTION

ESTABLISHING COMMERCIAL EXCELLENCE TODAY TO FUND INNOVATION FOR TOMORROW

Future of Ophthalmology Lies in Buy and Bill Treatments with Associated Procedure Codes

COMMERCIAL EXCELLENCE TODAY

- Expertise in “buy and bill”
- Optimize reimbursement/coding for product and procedure
- Execution of true key account management in ASC, HOPD, and office environments
- Understanding of compliance framework
- Rapidly reaching positive product contribution



INNOVATION FOR TOMORROW

- Innovative ophthalmology pipeline addressing unmet needs in large, growing eye care markets
- 4 products in clinic for front- and back-of-eye conditions with the potential to become the standard of care
- Targeting select indications within markets having an aggregate of \$25B in global sales¹

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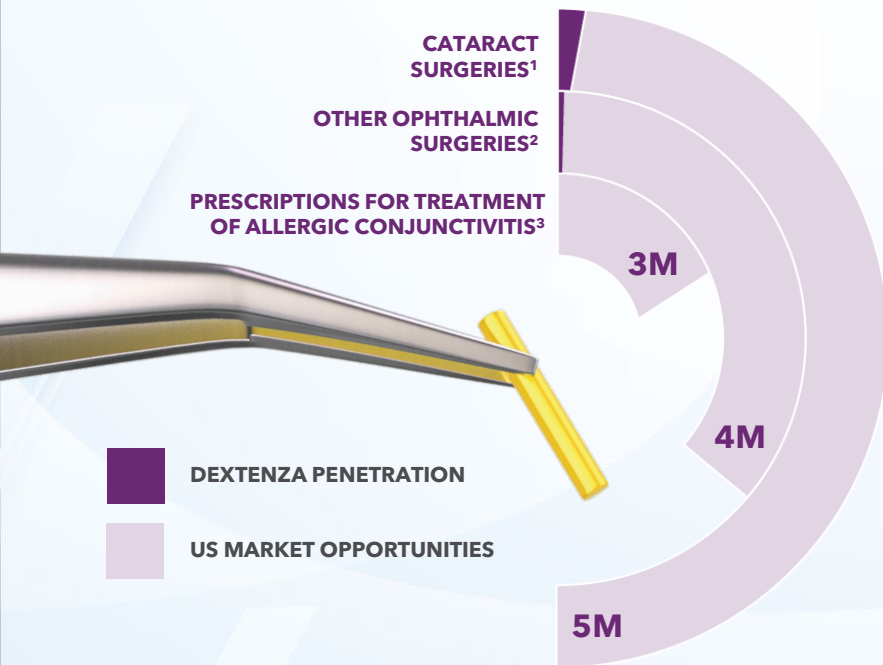


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DEXTENZA IS A BETTER WAY TO DELIVER STEROID TO THE OCULAR SURFACE

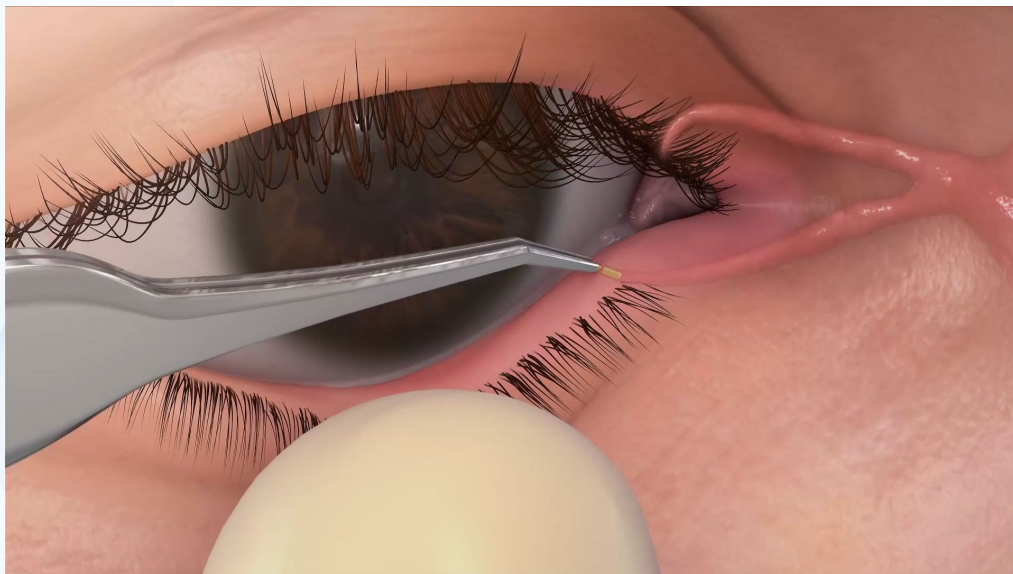
Numerous Growth Drivers Have Potential to Deliver Penetration in Large, Attractive Markets



Market Opportunities

- ✓ Opportunity in surgery starts with Medicare Part B cataract procedures but builds to all ophthalmic surgeries across all payers
- ✓ Opportunity for DEXTENZA in cataract surgery alone at an assumed 20% penetration is approximately \$500M per year
- ✓ Opportunity in the ophthalmology and optometry offices starts with allergic conjunctivitis

DEXTENZA'S POTENTIAL IS DRIVEN BY ITS CLINICAL BENEFITS



BETTER FOR PATIENTS¹⁻⁴

- Eliminates need for steroid eye drops for most patients
- Hands-free
- No need for caregiver to administer steroid
- Ideal solution for poor drop compliance
- Occludes the punctum leaving more tears to soothe the ocular surface
- Preservative free
- No need for removal



BETTER FOR CLINICIANS^{1,3,5}

- Puts control back in the hands of the physician
- Delivers 0.4mg dexamethasone for up to 30 days
- May prevent overuse of steroid by patients











BETTER FOR PRACTICE/STAFF⁶

- Saves time for practice on callbacks and patient education

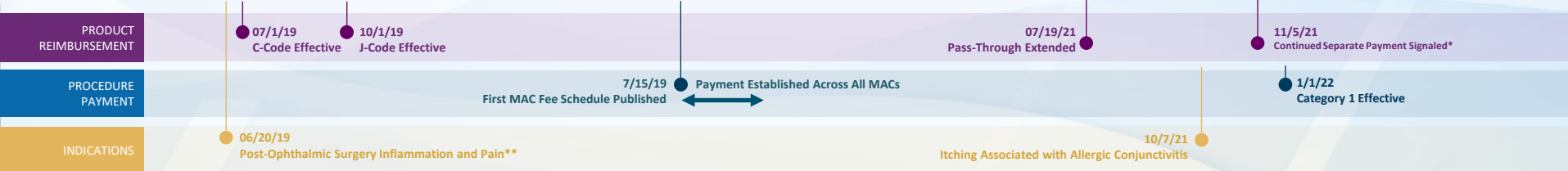


DEXENZA HAS GROWTH POTENTIAL BASED ON ITS ECONOMICS

DEXENZA® (Medical Benefit) vs Standard of Care (Pharmacy Benefit)

	PATIENTS	DOCTORS	SITE OF CARE
 MEDICAL BENEFIT Dextenza® (dexamethasone ophthalmic insert) 0.4mg for intracanalicular use	 No Co-pay for Patients* <ul style="list-style-type: none">Practice purchases DEXTENZA	 Physician Administered <ul style="list-style-type: none">Physician paid for administration	 Practice Economics <ul style="list-style-type: none">ASP + (up to) 6% drug paymentOpportunity for rebate
 PHARMACY BENEFIT Standard of Care	 Patients pay out-of-pocket for drug at pharmacy	 No physician payment for insertion procedure or drug	 Likely no improvement to practice economics

DEMONSTRATED COMMERCIAL PERFORMANCE IN THE “BUY AND BILL” SPACE

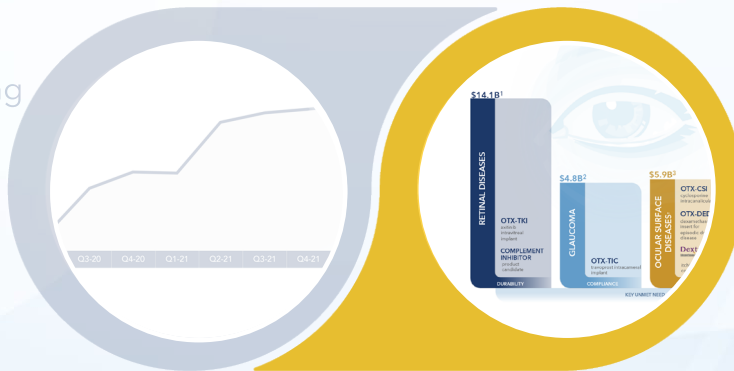


DEVELOPING TREATMENTS TO SET THE STANDARD OF CARE, TARGETING SELECT INDICATIONS WITHIN MARKETS WITH \$25B ANNUAL GLOBAL SALES

Future of Ophthalmology Lies in Buy and Bill Treatments with Associated Procedure Codes

COMMERCIAL EXCELLENCE TODAY

- Expertise in “buy and bill”
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INNOVATION FOR TOMORROW

- Innovative ophthalmology pipeline addressing unmet needs in large, growing eye care markets
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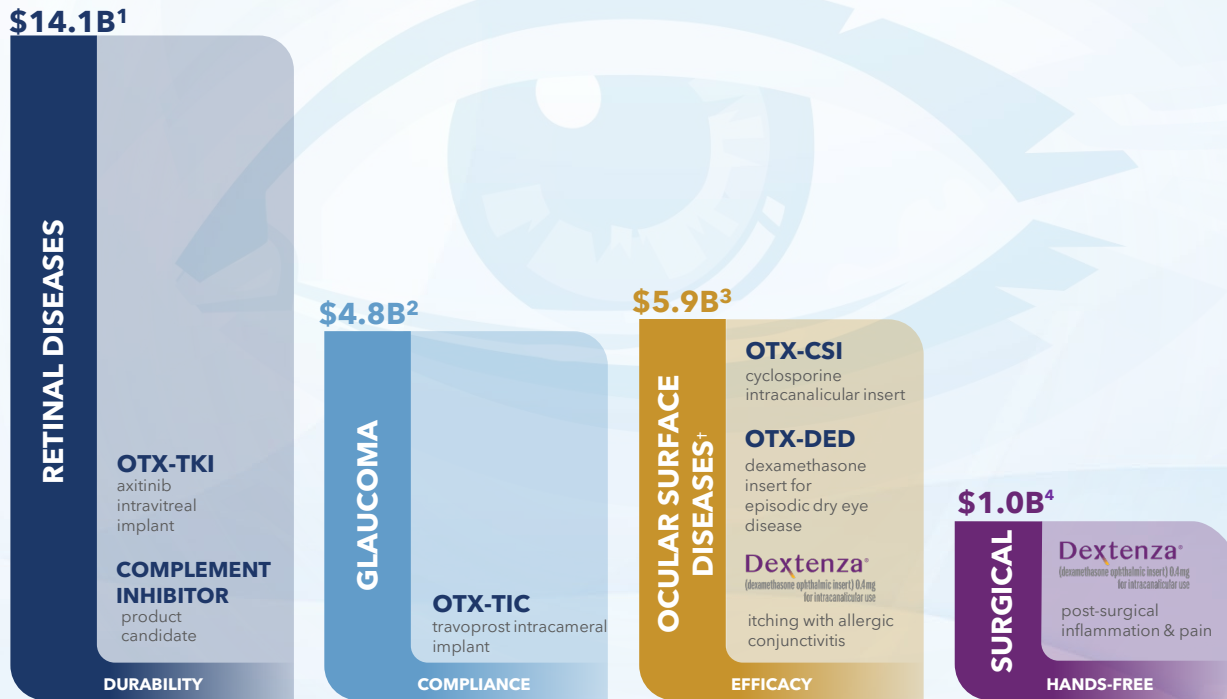
BUILDING A PIPELINE THAT HAS THE PROMISE OF BECOMING THE STANDARD OF CARE IN SELECT INDICATIONS WITHIN MARKETS WORTH OVER \$25B IN GLOBAL SALES

PIPELINE AT A GLANCE

	PROGRAM	THERAPEUTIC FOCUS	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	FDA APPROVAL
RETINA	OTX-TKI (axitinib intravitreal implant)	Wet AMD, DME and RVO*	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
GLAUCOMA	OTX-TIC (travoprost intracameral implant)	Glaucoma and ocular hypertension	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
OCULAR SURFACE DISEASE	OTX-CSI (cyclosporine intracanalicular insert)	Dry eye disease	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
OCULAR SURFACE DISEASE	OTX-DED (dexamethasone intracanalicular insert)	Episodic dry eye disease	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
RETINA	Complement Inhibitor (product candidate)	Dry AMD*	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
GENE THERAPY	AAV Delivery** (intravitreal implant)	Inherited and acquired ocular diseases	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>

DEVELOPING PRODUCTS WITH THE POTENTIAL TO BECOME STANDARD OF CARE IN SEVERAL OF THE LARGEST INDICATIONS IN OPHTHALMOLOGY

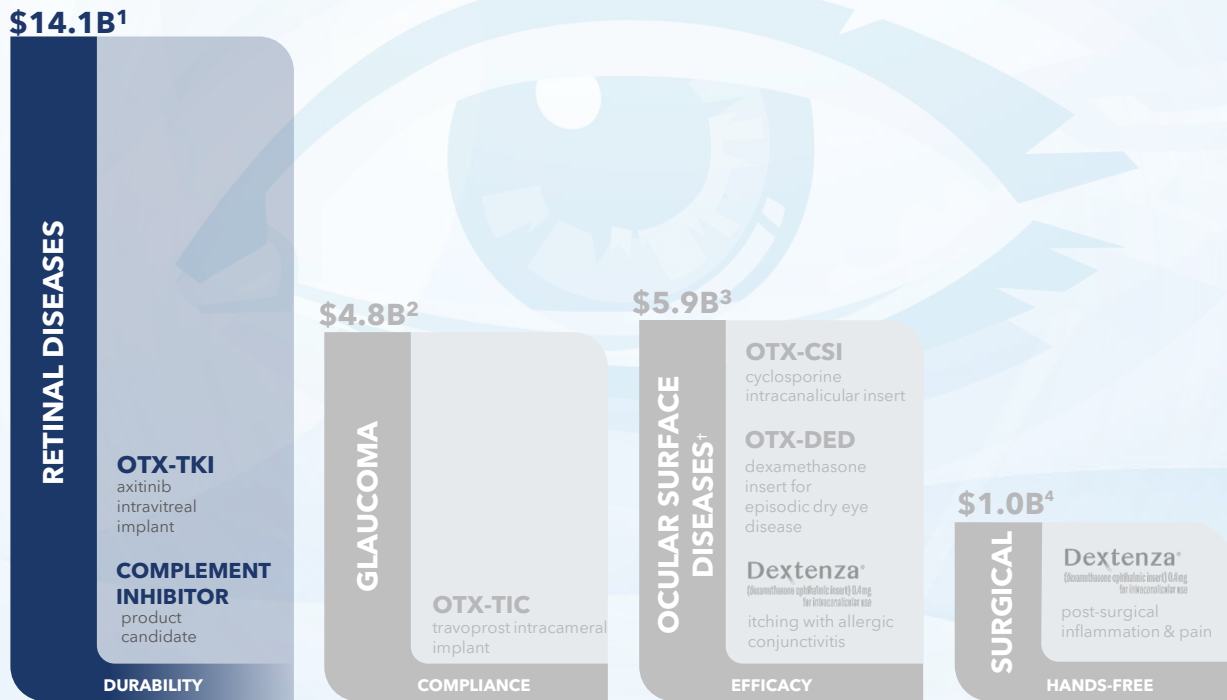
Targeting Key Unmet Needs in Select Indications in Large and Fast-Growing Markets Having an Aggregate of \$25B in Annual Global Revenue



KEY UNMET NEED

DEVELOPING PRODUCTS WITH THE POTENTIAL TO BECOME STANDARD OF CARE IN SEVERAL OF THE LARGEST INDICATIONS IN OPHTHALMOLOGY

Targeting Key Unmet Needs in Select Indications in Large and Fast-Growing Markets Having an Aggregate of \$25B in Annual Global Revenue



KEY UNMET NEED

13

These data reflect the total global market for the respective indications. Our market opportunity for such indications reflects a portion of this market.

[†] Data shown here is only representative of Dry Eye and not other Ocular Surface Diseases

1. 2021 Retina Pharma Market Scope Report 2. 2021 Glaucoma Pharma Market Scope Report 3. 2021 Dry Eye Market Scope Report 4. Estimated using costs of topical steroid eyedrops (not DEXTENZA) based on sales [IQVIA Market data breakdown 2021 (Feb 2022)] + ophthalmic anti-allergy sales

DESIGNED TO BECOME THE LEADING DURABILITY PRODUCT FOR THE TREATMENT OF WET AMD

OTX-TKI

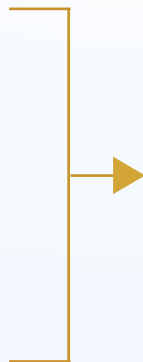
OTX-TKI (axitinib intravitreal implant)

Axitinib (Active Ingredient)

- Potential for broader anti-angiogenic profile compared to anti-VEGF agents¹
- Highly potent compared to other TKIs²
- Systemic TKI efficacy established in oncology³

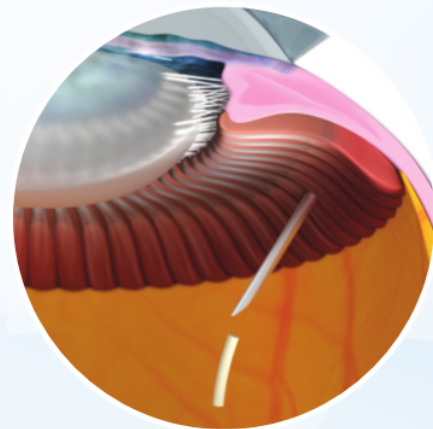
Polyethylene Glycol (PEG)-based Hydrogel Platform⁴

- Demonstrated biocompatibility with low potential for inflammation
- Highly programmable bioresorption



OTX-TKI, a novel hydrogel-based, biodegradable, sustained-release axitinib implant⁵

- Goal of delivering axitinib for 6 to 9 months at near zero-order kinetics
- Delivered through 25 gauge needle or smaller
- Biodegrades completely and is cleared from the vitreous
- Small fiber with minimal to no visual impact but still allows for physician monitoring
- Free of antimicrobial preservatives



AXITINIB EXHIBITS HIGH POTENCY, HIGH SELECTIVITY & LOW WATER SOLUBILITY COMPARED TO OTHER TKIS

- Small molecule multi-receptor tyrosine kinase inhibitor¹
- Acts intracellularly and interferes with cellular signaling through inhibition of the receptor tyrosine kinases²
- Lower doses of axitinib (at nanomolar concentrations) exhibit high potency and selectivity²
 - Lower doses may minimize the TKI class-related adverse events resulting from systemic drug concentrations³
 - Highly selective inhibitor of VEGFR-1, 2, 3 and PDGFR signaling²

Inhibitory Concentrations (IC50 in nmol) for Multitargeted TKIs ²					
Drug	VEGFR-1	VEGFR-2	VEGFR-3	PDGFR α	PDGFR β
Axitinib	0.1	0.2	0.1-0.3	5	1.6
Pazopanib	10	30	47	71	84
Sunitinib	10	10	10	5-10	10
Sorafenib	--	90	20	50-60	50-60

- Low water solubility⁴ compared to other TKIs (e.g., sunitinib, pazopanib, nintedanib),⁵⁻⁷ allowing for controlled drug release

STUDYING SUBJECTS WITH PRE-EXISTING INTRARETINAL/SUBRETINAL FLUID TO EVALUATE OTX-TKI ACTIVITY AS A MONOTHERAPY TO GET RID OF FLUID

PHASE 1 AUSTRALIA TRIAL

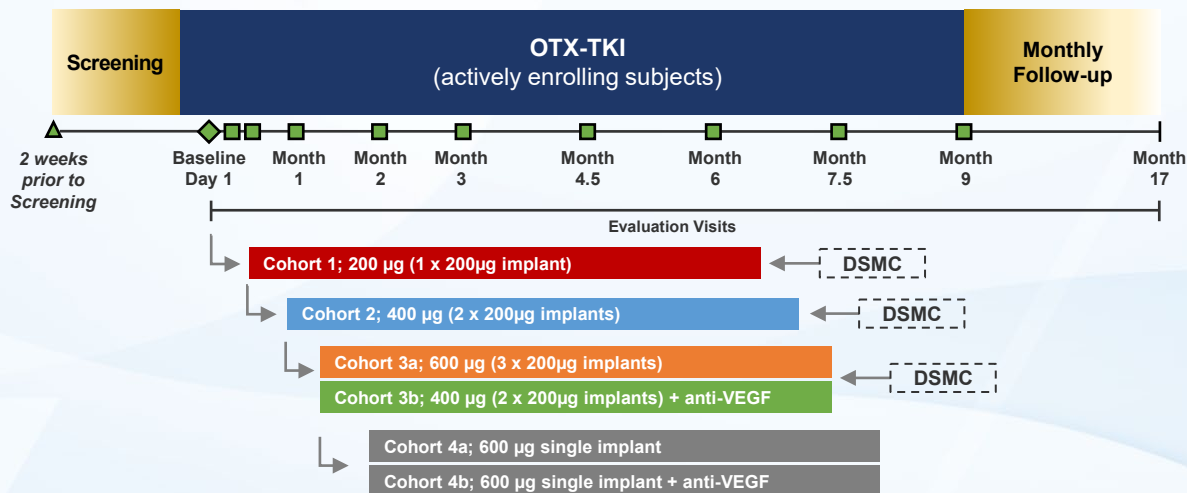
Key Inclusion Criteria

- Active primary sub foveal neovascularization secondary to AMD
- Previously treated or naïve subjects
- Presence of retinal fluid

OBJECTIVES

- Safety and tolerability
- Biological activity - mean change in central subfield thickness measured by SD-OCT, BCVA, and clinically-significant leakage on FA and/or OCT-A

Open-label, Dose Escalation, Feasibility Trial



Study Question:

Does axitinib (a tyrosine kinase inhibitor) injected into the eye have biological activity?

THERAPY DURABILITY SUGGESTS EXTENDED DURATION OF ACTION

PHASE 1 AUSTRALIA TRIAL

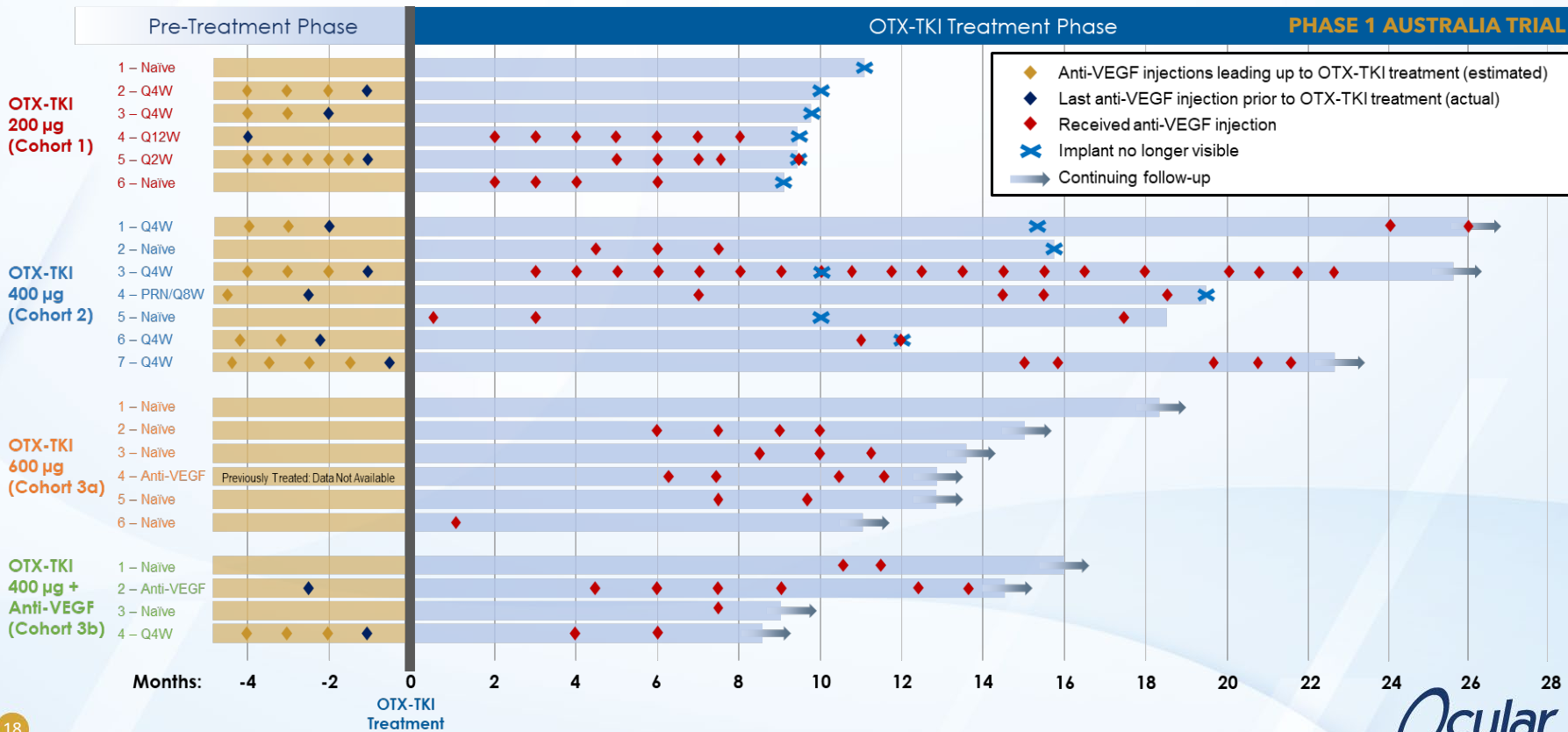
Over 60% of all subjects showed durability of 6 months or longer and approximately 50% of subjects showed durability of 7.5 months or longer

	Month 1 % (n/N)	Month 3 % (n/N)	Month 6 % (n/N)	Month 7.5 % (n/N)	Month 9 % (n/N)	Month 12 % (n/N)	Month 14 % (n/N)	Month 17 % (n/N)
Cohort 1 (200 µg)	100% (6/6)	67% (4/6)	50% (3/6)	50% (3/6)	50% (3/6)	NA	NA	NA
Cohort 2 (400 µg)	86% (6/7)	71% (5/7)	57% (4/7)	43% (3/7)	43% (3/7)	29% (2/7)	29% (2/7)	14% (1/5)
Cohort 3a (600 µg)	100% (6/6)	83% (5/6)	83% (5/6)	50% (3/6)	17% (1/6)	20% (1/5)*	50% (1/2)*	100% (1/1)*
Cohort 3b (400 µg + anti-VEGF)	100% (4/4)	100% (4/4)	50% (2/4)	50% (2/4)	33% (1/3)*	0% (0/2)*	0% (0/2)*	TBD
All Cohorts (Pooled)	96% (22/23)	78% (18/23)	61% (14/23)	48% (11/23)	36% (8/22)*	21% (3/14)*	27% (3/11)*	33% (2/6)*

Rescue Criterion:

- If needed, any subject in any treatment arm may receive rescue therapy (i.e., anti-VEGF) at the Investigator's discretion
- The following criteria used to identify subjects who will likely require rescue therapy:
 - i. Loss of ≥ 15 letters from best previous BCVA due to AMD, with current BCVA not better than baseline; or
 - ii. Loss of ≥ 10 letters on 2 consecutive visits from best previous BCVA due to AMD, with current BCVA score not better than baseline
 - iii. Evidence of worsening disease activity manifest by greater than 75 microns CSFT from previous best value

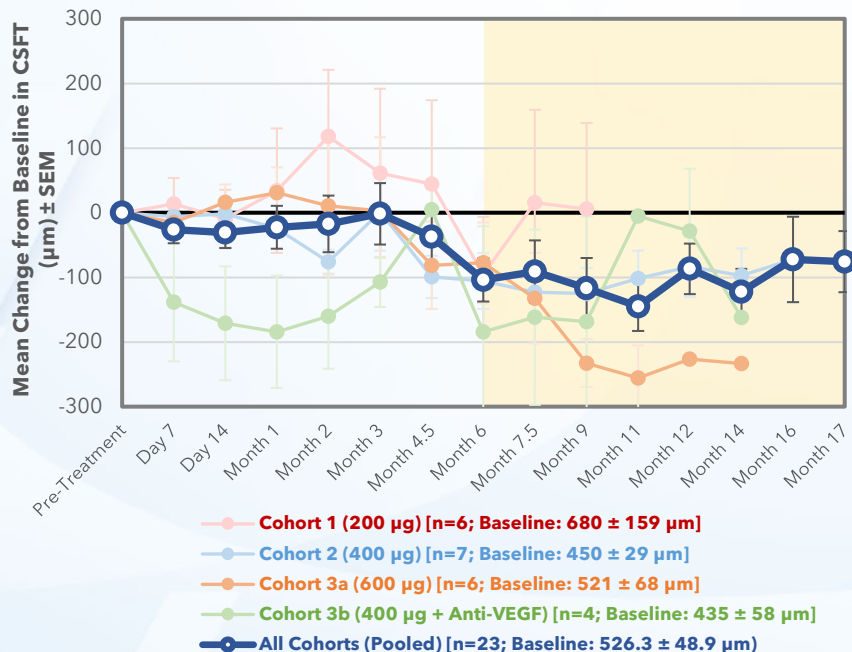
DURABILITY OF RESPONSE FOR INDIVIDUAL SUBJECTS TREATED WITH OTX-TKI



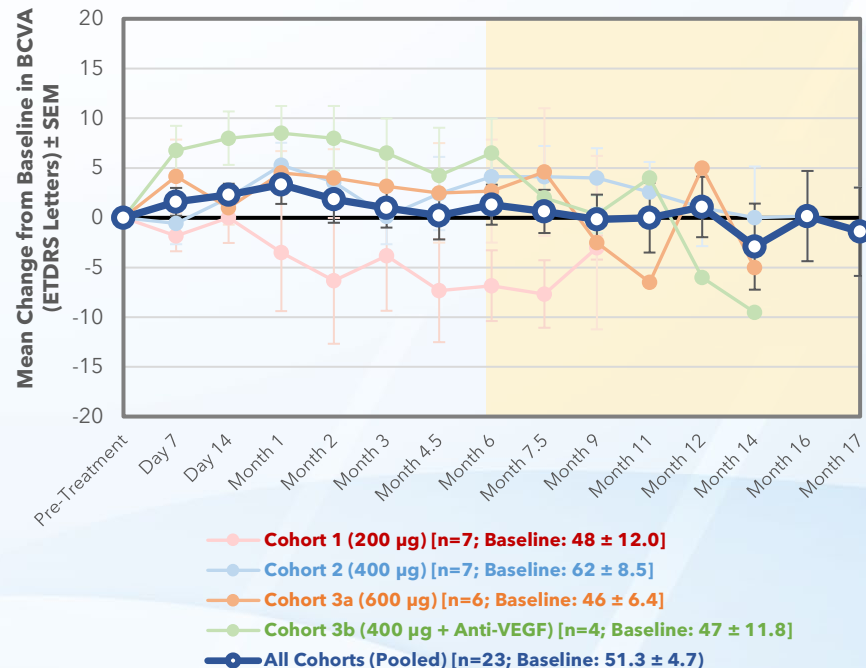
EFFECTIVE CONTROL OF RETINAL FLUID AND VISION DEMONSTRATING SUSTAINED ACTIVITY OVER TIME AS A MONOTHERAPY

PHASE 1 AUSTRALIA TRIAL

CSFT



BCVA

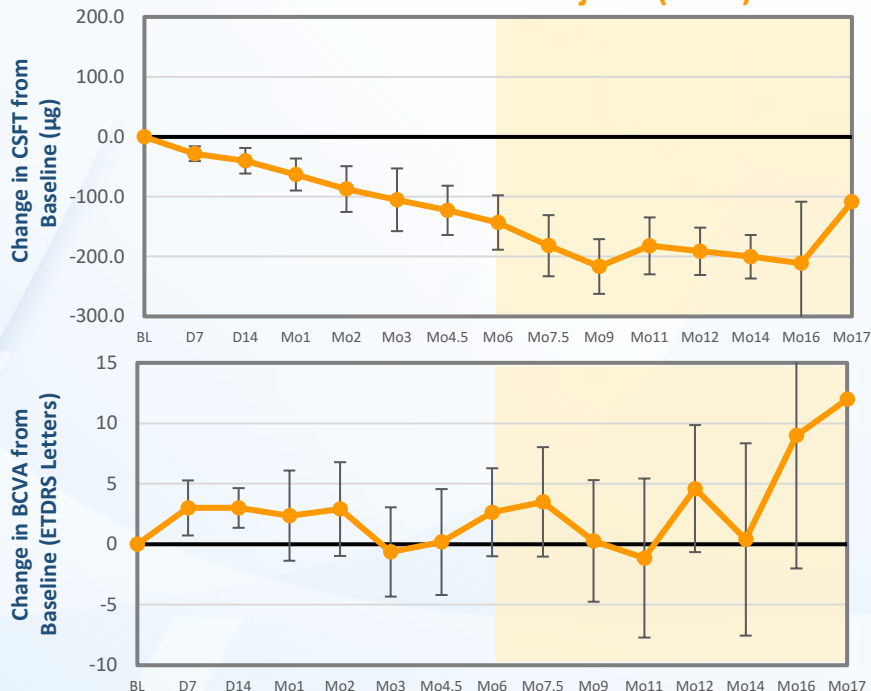


Cohort 1: n=6 until Month 9; Cohort 2: n=7 until Month 12, n=6 for Month 14, n=5 for Month 16 and 17
 Cohort 3a: n=6 until Month 11, n=5 for Month 12, n=2 for Month 14, n=1 for Month 16 and 17; Cohort 3b: n=4 until Month 7.5; n=3 for Month 9, n=2 for Month 11 to 14; n=1 for Month 16
 All BCVA (best correct visual acuity) and CSFT (central subfield thickness) values compared to baseline visit; NOTE: Interim review, unmonitored data; Data cut off January 11, 2022

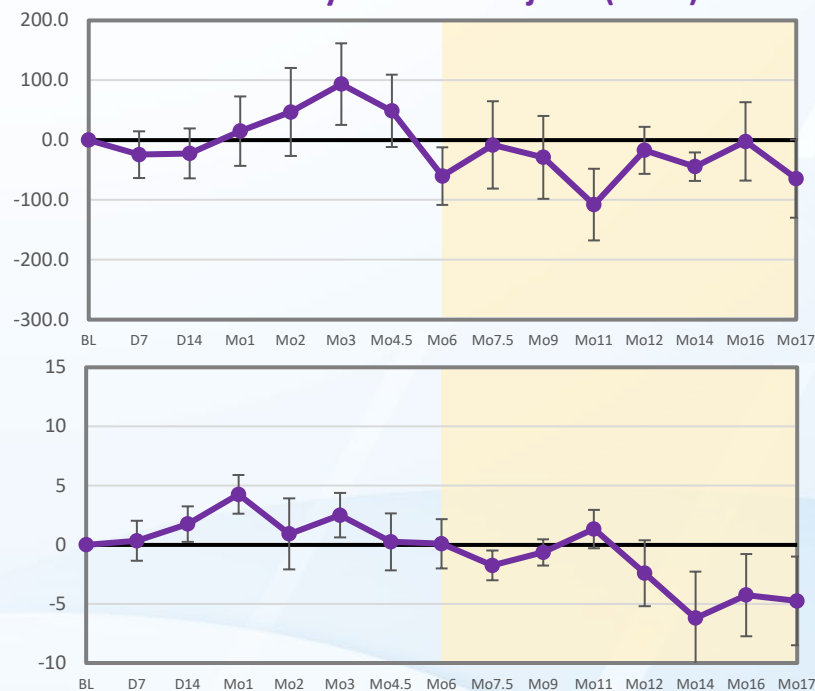
EFFECTIVE CONTROL OF RETINAL FLUID AND VISION DEMONSTRATING SUSTAINED ACTIVITY OVER TIME AS A MONOTHERAPY

PHASE 1 AUSTRALIA TRIAL

Treatment Naïve Subjects (n=11)



Previously Treated Subjects (n=12)

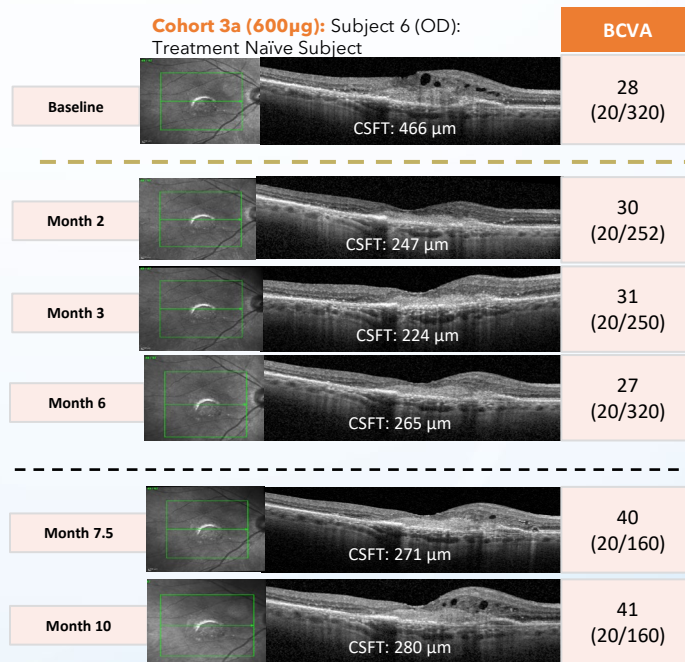
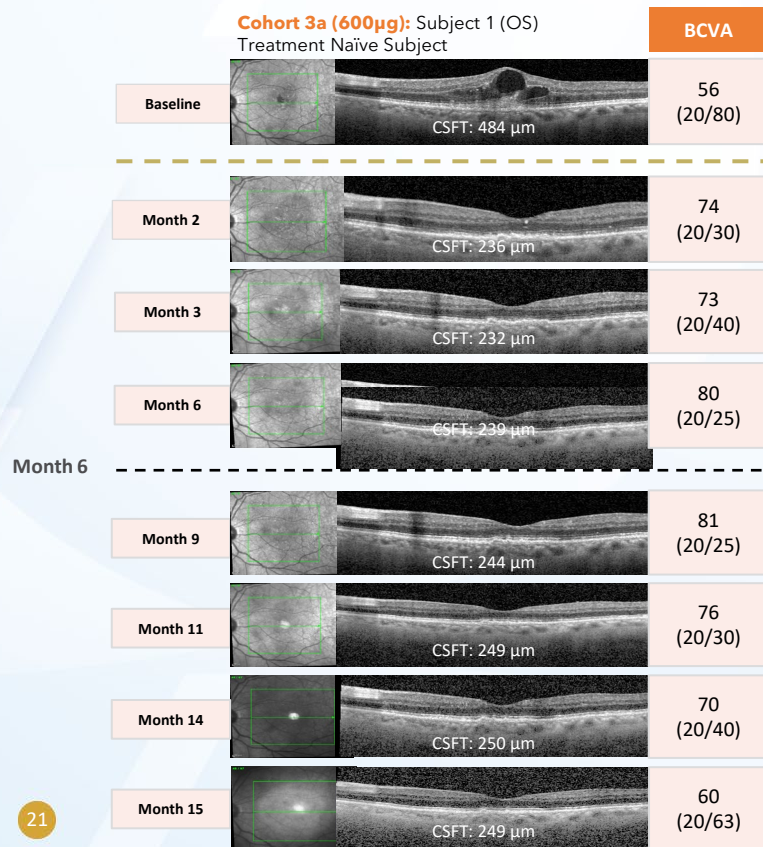


—●— Treatment Naïve Subjects from Cohorts 1, 2, 3a & 3b (Pooled)

—●— Previously Treated Subjects from Cohorts 1, 2, 3a & 3b (Pooled)

PRELIMINARY BIOLOGICAL SIGNAL OF CLINICALLY-MEANINGFUL DECREASE IN RETINAL FLUID AS MONOTHERAPY

PHASE 1 AUSTRALIA TRIAL



Received anti-VEGF at
Month 1

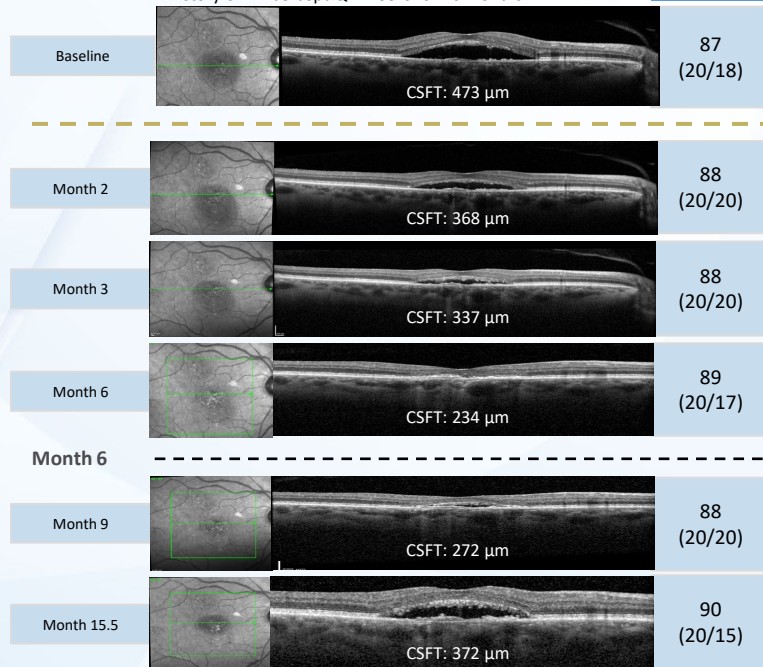
Month 6

PRELIMINARY BIOLOGICAL SIGNAL OF CLINICALLY-MEANINGFUL DECREASE IN RETINAL FLUID

PHASE 1 AUSTRALIA TRIAL

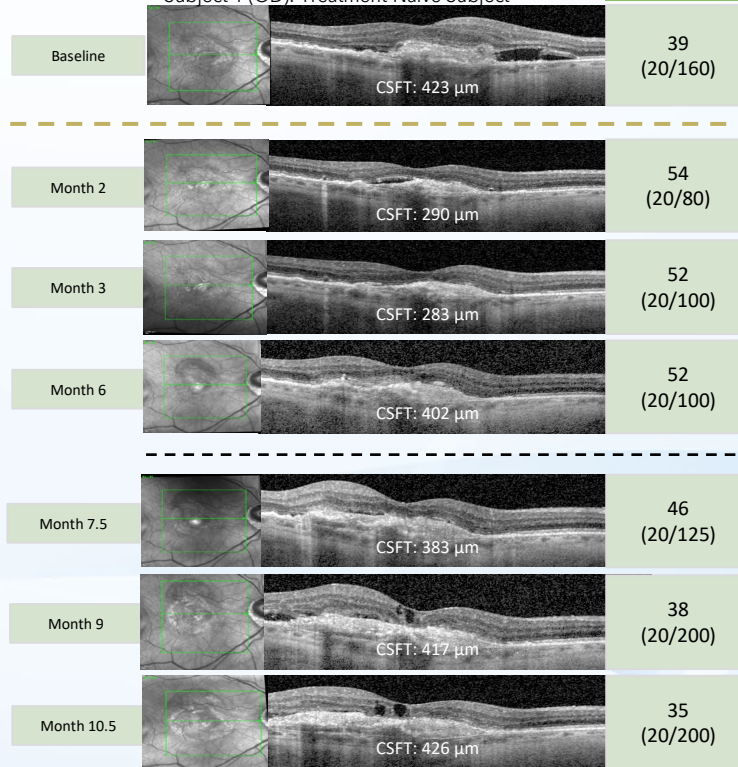
Cohort 2 (400µg): Subject 1 (OD):
History of Aflibercept Q4 Weeks for 16 months

BCVA



Cohort 3b (400µg + Anti-VEGF):
Subject 1 (OD): Treatment Naïve Subject

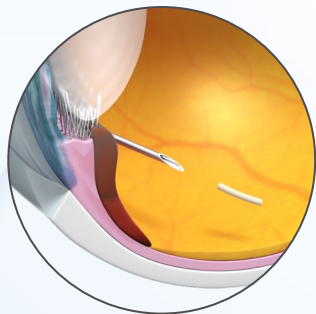
BCVA



Month 6

OTX-TKI SHOWS POTENTIAL AS A DURABLE SUSTAINED-RELEASE MONOTHERAPY IN SUBJECTS WITH PRE-EXISTING RETINAL FLUID

PHASE 1 AUSTRALIA TRIAL



OTX-TKI

■ OTX-TKI was generally well tolerated

- To date, observed to have a favorable safety profile, with no ocular serious adverse events in treatment naïve & previously treated wet AMD patients
- No measurable systemic exposure to axitinib observed in Cohort 1, 2, 3a and 3b

■ Preliminary biological signal of clinically-meaningful decrease in retinal fluid

- Some subjects showed a decrease in intraretinal or subretinal fluid by 2 months in Cohorts 2 (400 µg) & 3a (600 µg)
- Combination of OTX-TKI + Anti-VEGF (Cohort 3b) showed a decrease in intraretinal or subretinal fluid as early as a week after treatment in two subjects

■ Therapy durability suggests extended duration of action (follow-up ongoing)

- Over 60% of all subjects showed durability of 6 months or longer (including over 80% in the 600 µg group) and approximately 50% of subjects showed durability of 7.5 months or longer

■ Consistent bio-resorption observed

- Implant biodegraded in Cohort 1 (single implant) by 9-10.5 months

■ Implant location observation suggests limited movement

- Implant was able to be adequately monitored

STUDYING PREVIOUSLY ANTI-VEGF TREATED SUBJECTS TO EVALUATE TKI DURABILITY WITHOUT NEED FOR RETREATMENT

PHASE 1 US TRIAL

Key Inclusion Criteria

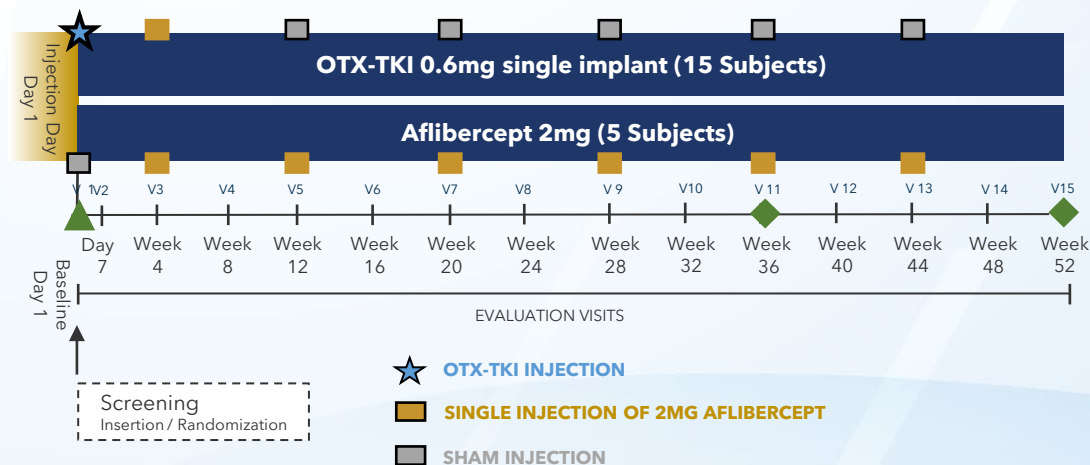
- Sub foveal neovascularization secondary to AMD
- No active fluid

OBJECTIVES

- Safety, tolerability, durability and biological activity
- BCVA, mean change in central subfield thickness (CSFT) measured by SD-OCT and safety evaluations at all visits

Key Differences in Trial Design:

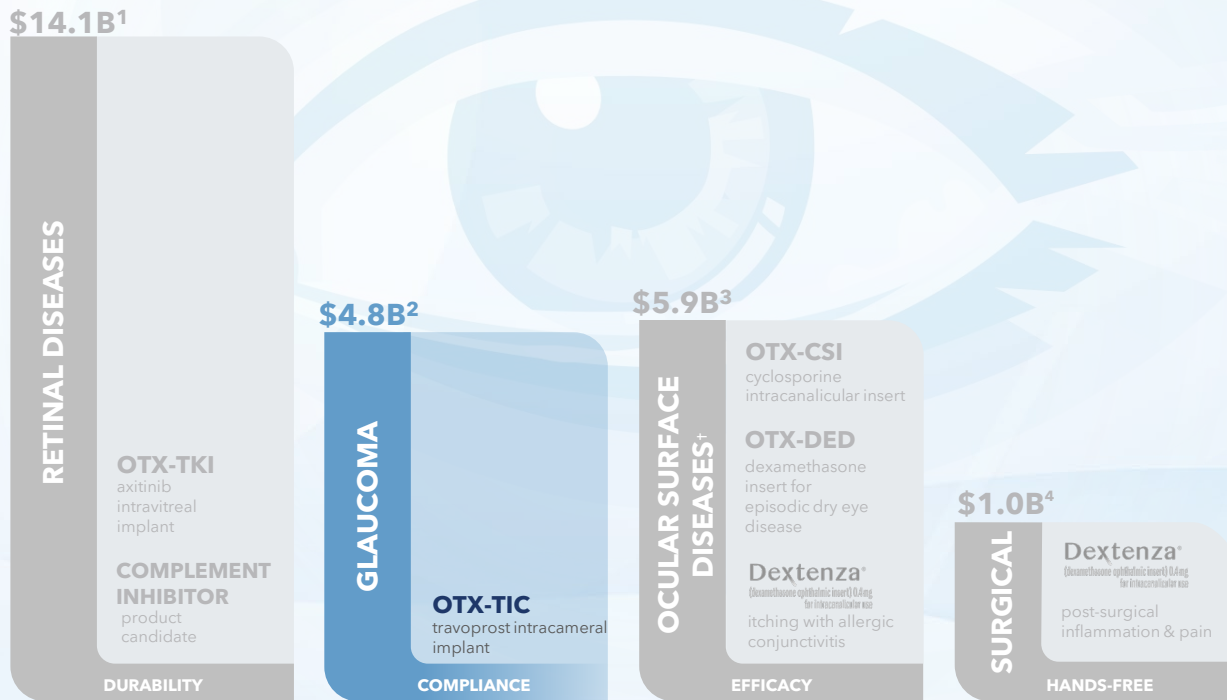
	US Phase 1 Trial	Australia Phase 1 Trial
Inclusion Criteria	No active fluid	Presence of retinal fluid
OTX-TKI Implant	One 0.6 mg (600 µg) single implant	Cohorts 1-3 used one to three 0.2 mg (200 µg) implants to achieve different dose levels (0.2, 0.4 and 0.6 mg)
Anti-VEGF Induction	Yes, all subjects	Only in Cohort 3b and 4b
Rescue Criteria	i. Loss of 10 letters ⁱ ii. Evidence of >75µm CSFT & ≥5 letters loss ⁱⁱ iii. New macular hemorrhage	i. Loss of ≥15 letters ⁱ ii. Loss of ≥10 letters on 2 consecutive visits ⁱ iii. Evidence of >75µm CSFT ⁱⁱ



INTERIM DATA EXPECTED IN Q3 2022

DEVELOPING PRODUCTS WITH THE POTENTIAL TO BECOME STANDARD OF CARE IN SEVERAL OF THE LARGEST INDICATIONS IN OPHTHALMOLOGY

Targeting Key Unmet Needs in Select Indications in Large and Fast-Growing Markets Having an Aggregate of \$25B in Annual Global Revenue



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DESIGNED TO ADDRESS THE ISSUE OF COMPLIANCE IN THE TREATMENT OF GLAUCOMA

OTX-TIC

OTX-TIC (travoprost intracameral implant)

Travoprost (Active Ingredient)

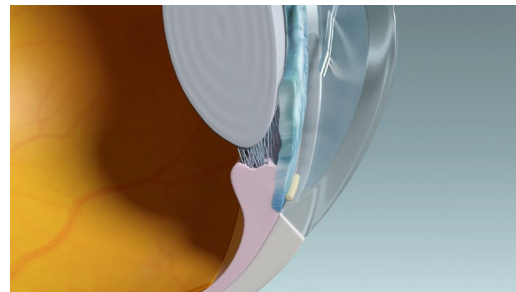
- Encapsulated in microparticles for controlled and sustained delivery over months^{1,2}

Polyethylene Glycol (PEG)-based Hydrogel Platform

- Demonstrated biocompatibility with low potential for inflammation³
- Highly programmable bioresorption³

OTX-TIC, a novel hydrogel-based, biodegradable, travoprost implant⁴

- Goal of delivering travoprost for 6 months or longer with a single implant⁴
- Preservative-free⁴
- Hands-free alternative to traditional chronic eye drop therapy⁴



- Administered via a single injection with proprietary injector (26G-27G)⁴
- Fully biodegradable⁵

PHASE 1 TRIAL EVALUATING OTX-TIC IN TREATING SUBJECTS WITH GLAUCOMA OR OCULAR HYPERTENSION

PHASE 1 TRIAL

DESIGN

- Open-label, proof-of-concept study
- US study, 19 subjects at 5 sites
- One eye per patient will be treated

KEY INCLUSION CRITERIA

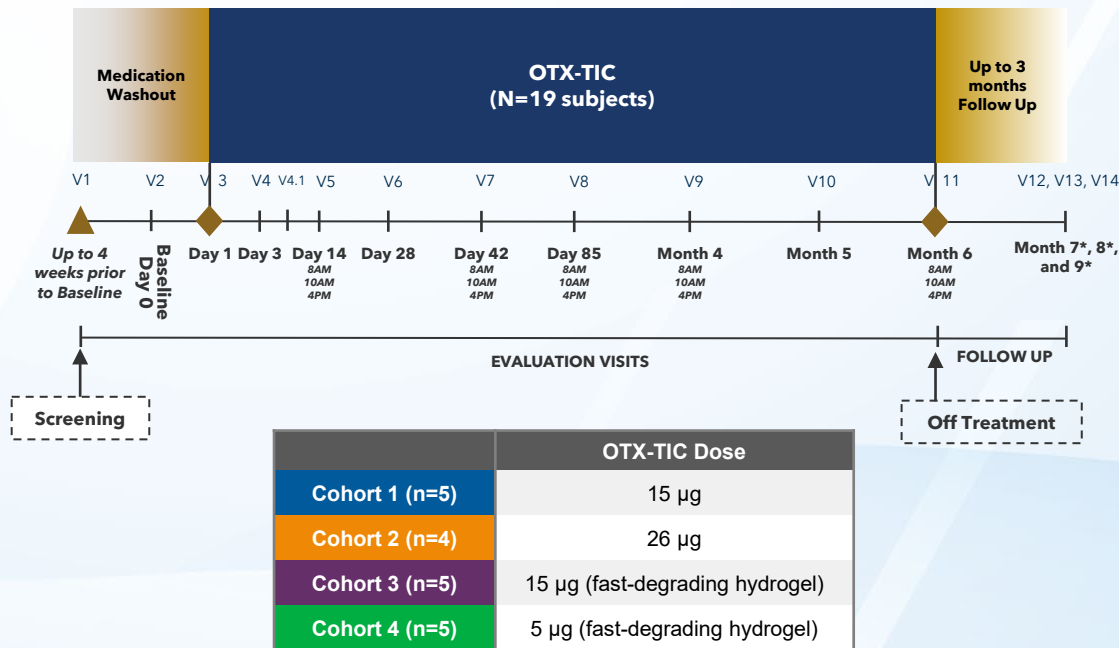
- Controlled ocular hypertension (HTN) or Primary Open Angle Glaucoma (POAG)
- Open, normal anterior chamber angles on gonioscopy

OBJECTIVES

- Safety, tolerability, and biological activity
- Diurnal IOP changes from baseline (8AM, 10AM, 4PM) at 2, 6, and 12 weeks, and 4, 6 months

NON-STUDY EYE TREATMENT

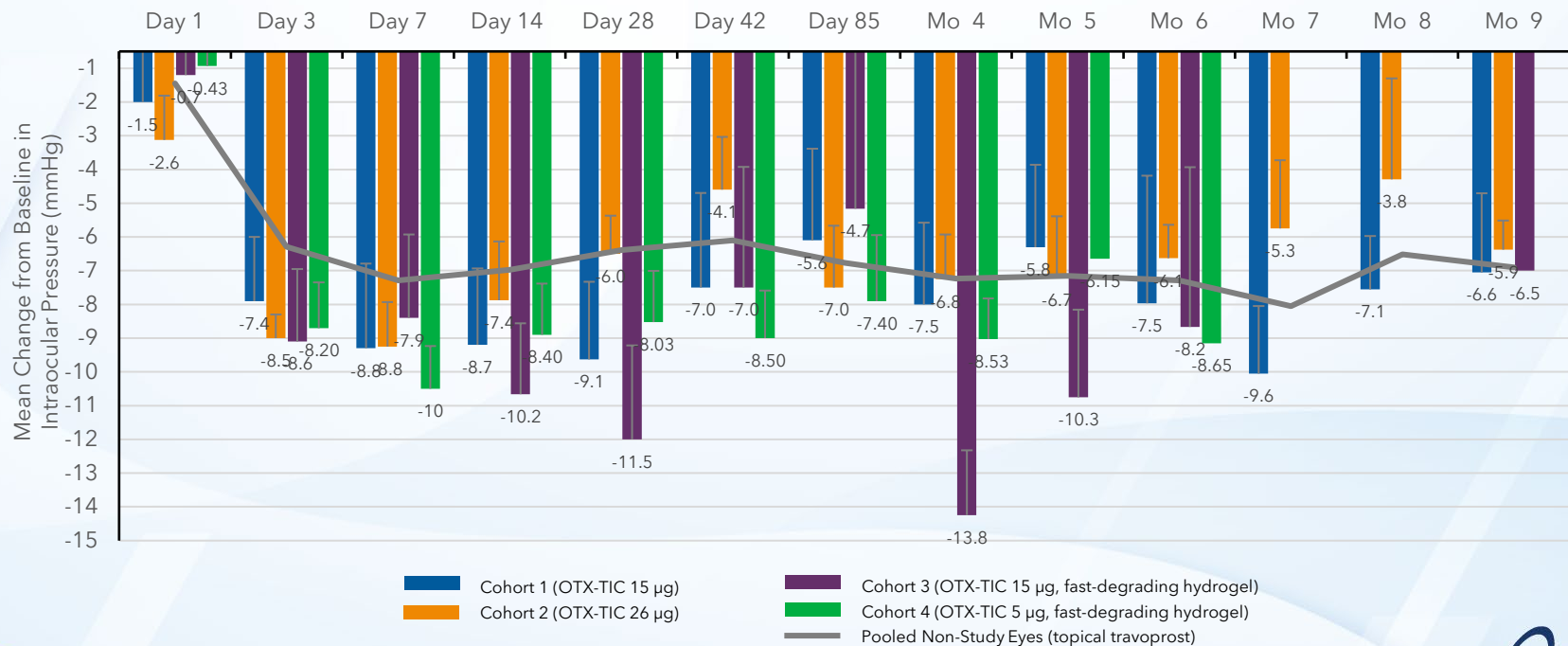
- Non-study eye receives topical PGA daily



CLINICALLY-MEANINGFUL DECREASE IN IOP FOR ALL COHORTS

IOP Reduction Began 2 Days Following Implantation of OTX-TIC and was Comparable to Topical Travoprost

PHASE 1 TRIAL



THERAPY DURABILITY SUGGESTS EXTENDED DURATION OF ACTION OVER SEVERAL MONTHS

Cohort 2 (26µg) Showed the Most Consistent Durable Response in All Subjects Up to Month 6 & 50% of Subjects Up to Month 9

PHASE 1 TRIAL

Percentage of Study Eyes Not Requiring Rescue Therapy After a Single Implant Administration

	Day 42 % (n/N)	Day 85 % (n/N)	Month 4 % (n/N)	Month 5 % (n/N)	Month 6 % (n/N)	Month 7 % (n/N)	Month 8 % (n/N)	Month 9 % (n/N)	Month 10-22 % (n/N)
Cohort 1 (15 µg) N=5	100% (5/5)	100% (5/5)	80% (4/5)	80% (4/5)	60% (3/5)	40% (2/5)	40% (2/5)	40% (2/4)	20 (1/5)
Cohort 2 (26 µg) N=4	100% (4/4)	100% (4/4)	100% (4/4)	100% (4/4)	100% (4/4)	100% (4/4)	75% (3/4)	50% (2/4)	NA
Cohort 3 (15 µg) (Fast-degrading) N=5	100% (5/5)	60% (3/5)	40% (2/5)	40% (2/5)	40% (2/5)	20% (1/5)	20% (1/5)	20% (1/5)	NA
Cohort 4 (5 µg) (Fast-degrading) N=5	100% (5/5)	100% (5/5)	80% (4/5)	80% (4/5)	80% (4/5)	NA	NA	NA	NA
All Cohorts N=19	100% (19/19)	89% (17/19)	74% (14/19)	74% (14/19)	68% (13/19)	50% (7/14)	43% (6/14)	39% (5/13)	20% (1/5)



<50%



50-74%



75-99%



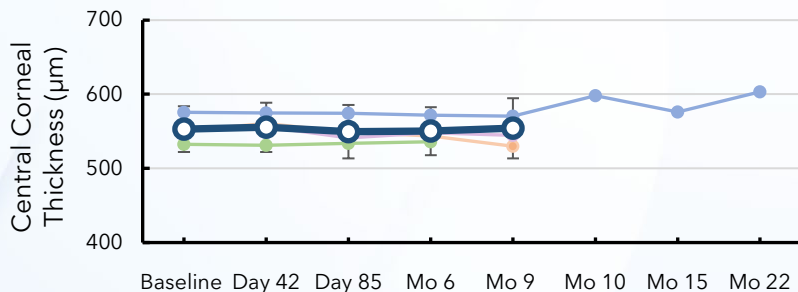
100%

NO IMPACT ON CORNEAL HEALTH & CONSISTENT IMPLANT RESORPTION

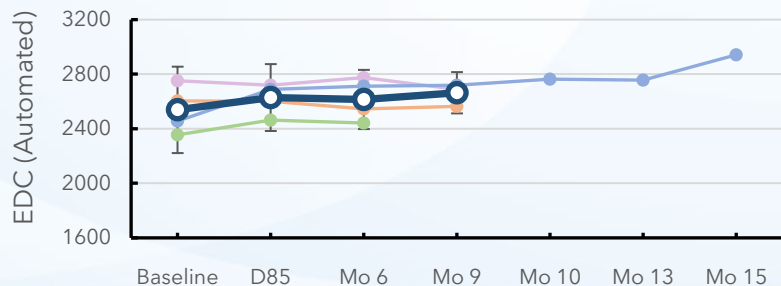
No Observed Clinically-Meaningful Change to Corneal Health Over Time

PHASE 1 TRIAL

Pachymetry

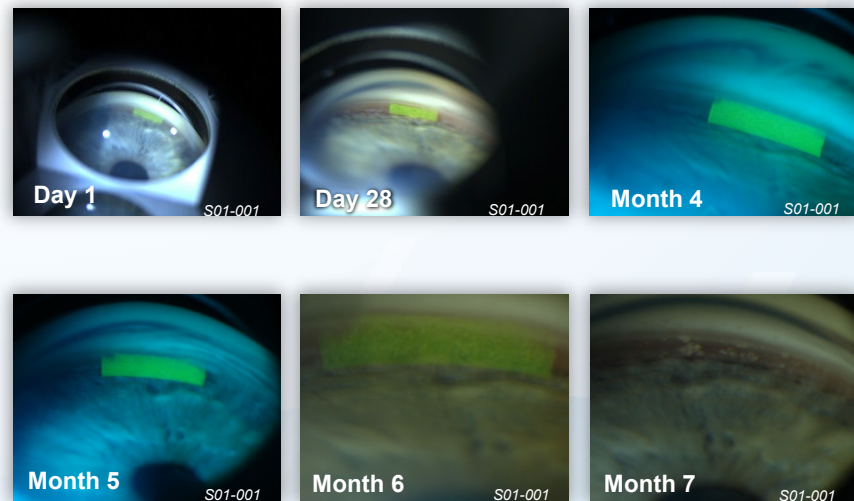


Endothelial Cell Counts (EDC)



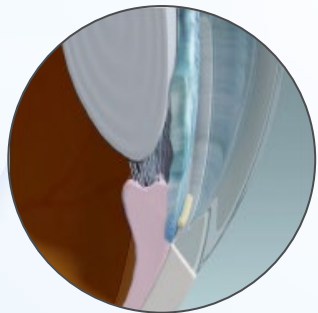
- All Cohorts
- Cohort 1 (OTX-TIC 15 µg)
- Cohort 2 (OTX-TIC 26 µg)
- Cohort 3 (OTX-TIC 15 µg, fast-degrading hydrogel)
- Cohort 4 (OTX-TIC 5 µg, fast-degrading hydrogel)

Consistent Implant Resorption Over Time



OTX-TIC SHOWS POTENTIAL AS A DURABLE, SUSTAINED-RELEASE GLAUCOMA THERAPY WHILE PRESERVING CORNEAL HEALTH

PHASE 1 TRIAL



OTX-TIC

- **Clinically-meaningful decrease in IOP**

OTX-TIC produced IOP lowering effects comparable to travoprost therapy as early as two days following administration

- **Therapy durability suggests extended duration of action over several months**

Many subjects exhibited duration of IOP-lowering effect of 6+ months in Cohorts 1 and 2, and between 3-6 months in Cohorts 3 and 4 (fast degrading implant) with a single implant; longest and most consistent IOP lowering in Cohort 2

- **Consistent implant resorption over time**

Implant biodegraded in 5-7 months (Cohorts 1 & 2); fast degrading implants biodegraded in 3-5 months (Cohorts 3 & 4)

- **Implant location observation suggests no movement**

Implant was not observed to move at slit lamp and was visible at all exams in all patients using gonioscopy

- **No clinically-meaningful change to corneal health over time**

Endothelial cell counts, pachymetry assessments, and slit lamp examinations indicate no changes from baseline

PHASE 2 TRIAL EVALUATING OTX-TIC COMPARED TO DURYSTA CONTROL ARM

PHASE 2 TRIAL

DESIGN

- Prospective, multi-center, randomized, parallel-group, controlled study with approximately 105 subjects at 15-20 US sites

KEY INCLUSION CRITERIA

- Controlled ocular hypertension (HTN) or Primary Open Angle Glaucoma (POAG)
- Open, normal anterior chamber angles on gonioscopy

OBJECTIVES

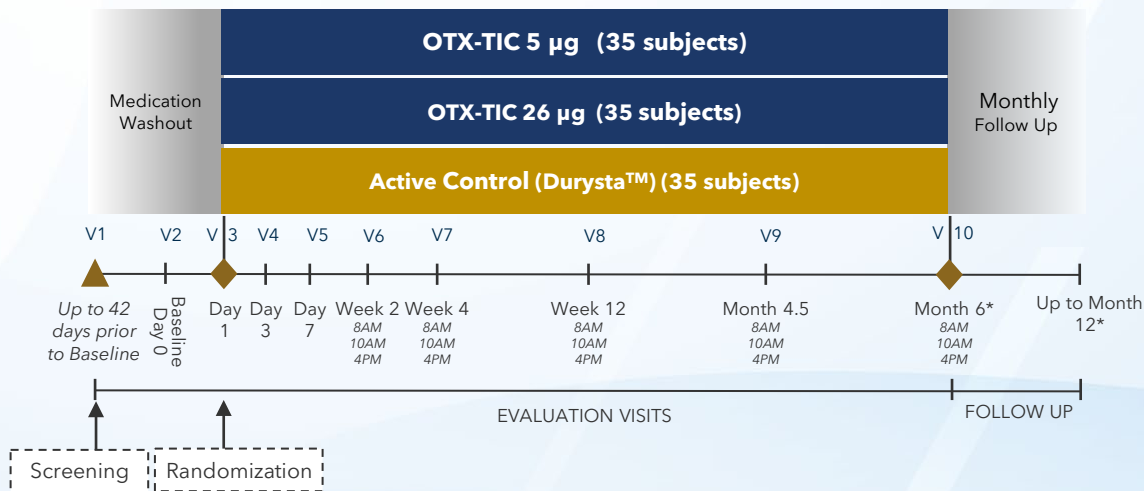
- Safety, tolerability, and efficacy
- Diurnal IOP changes from baseline (8AM, 10AM, 4PM) at 2, 6, and 12 weeks

NON-STUDY EYE TREATMENT

- Non-study eye receives topical PGA daily

ACTIVE COMPARATOR

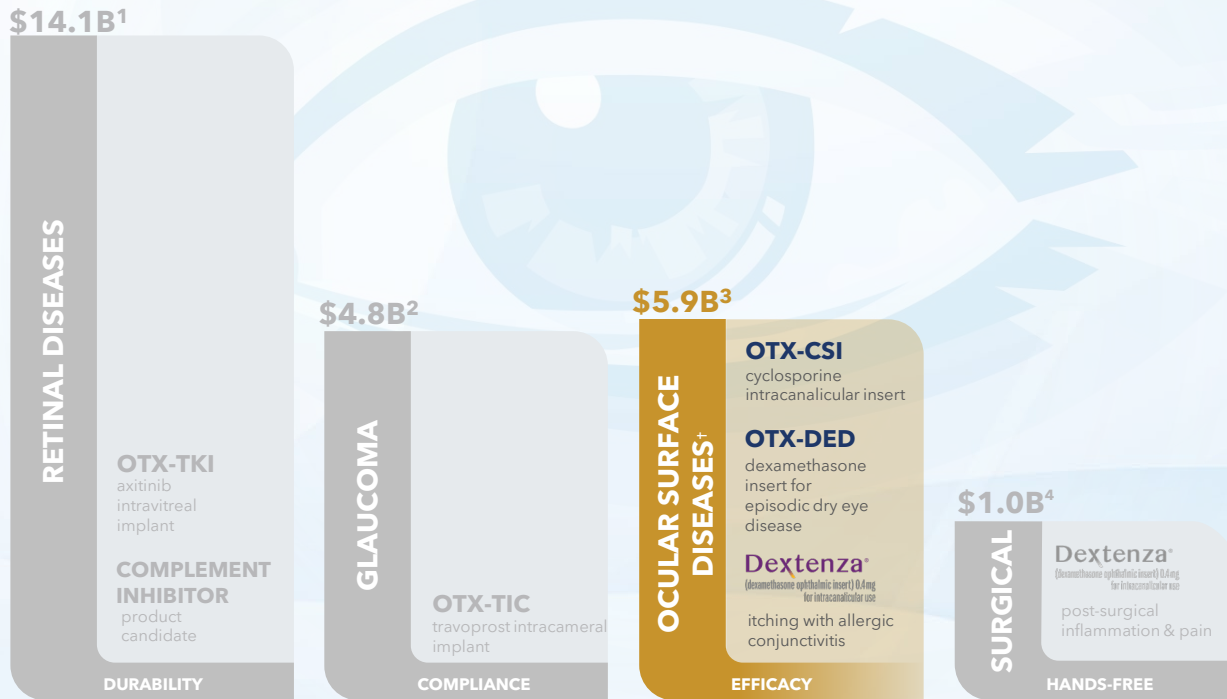
- Control arm eye receives one injection of Durysta™



CURRENTLY ENROLLING PHASE 2 TRIAL

DEVELOPING PRODUCTS WITH THE POTENTIAL TO BECOME STANDARD OF CARE IN SEVERAL OF THE LARGEST INDICATIONS IN OPHTHALMOLOGY

Targeting Key Unmet Needs in Select Indications in Large and Fast-Growing Markets Having an Aggregate of \$25B in Annual Global Revenue



KEY UNMET NEED

33

These data reflect the total global market for the respective indications. Our market opportunity for such indications reflects a portion of this market.

[†] Data shown here is only representative of Dry Eye and not other Ocular Surface Diseases

1. 2021 Retina Pharma Market Scope Report 2. 2021 Glaucoma Pharma Market Scope Report 3. 2021 Dry Eye Market Scope Report 4. Estimated using costs of topical steroid eyedrops (not DEXTENZA) based on sales [IQVIA Market data breakdown 2021 (Feb 2022)] + ophthalmic anti-allergy sales

DESIGNED TO ADDRESS EFFICACY ISSUES FOR THE CHRONIC TREATMENT OF DRY EYE

OTX-CSI

OTX-CSI (cyclosporine intracanalicular insert)

ISSUES WITH EXISTING TREATMENTS¹⁻⁵

- Slow onset of action for therapy
- High level of burning, stinging and irritation upon administration
- Burden of patient administration due to chronic condition
- Preservatives which have the potential to cause ocular surface toxicity

OTX-CSI CLINICAL DEVELOPMENT PROGRAM

In Phase 2 trial^{6,7}

☒ Improvement from baseline observed in signs and symptoms of DED, however not statistically significant

☐ No separation of effect observed between active drug and vehicle at 12 weeks on tear production (Schirmer's)



Develop an appropriate vehicle comparator to set the foundation for dry eye clinical development programs

☐ Insert retention was problematic and is currently being re-formulated to allow for better product retention



Reformulate OTX-CSI insert to allow improved product retention

PLANNING IN PROGRESS TO ADVANCE CLINICAL DEVELOPMENT

DESIGNED TO ADDRESS EFFICACY ISSUES FOR THE TREATMENT OF EPISODIC DRY EYE

OTX-DED

OTX-DED (dexamethasone intracanalicular insert)

ISSUES WITH EXISTING TREATMENTS¹⁻⁶

- Approved therapies for treatment of DED are known for slow onset of action and burning/stinging upon application
- All currently approved topical steroid eye drops in the US have preservatives which have the potential to cause ocular surface toxicity

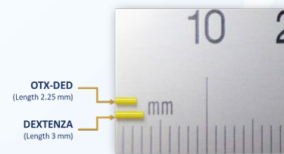
OTX-DED CLINICAL DEVELOPMENT PROGRAM

In Phase 2 trial⁸

- ☒ Statistically significant improvement* in primary endpoint (conjunctival hyperemia in the worst zone) for OTX-DED relative to vehicle hydrogel
 - ☐ Symptoms (eye dryness score) improved from baseline, with no separation between active groups and vehicle
- Develop an appropriate vehicle comparator to set the foundation for dry eye clinical development programs

KEY PRODUCT ATTRIBUTES⁷

- Dexamethasone (0.2 mg or 0.3 mg) loaded in hydrogel
- Preservative-free
- Occludes the punctum
- Fully biodegradable insert
- Leverages safety profile of DEXTENZA



PLANNING SMALL TRIAL TO DETERMINE AN APPROPRIATE PLACEBO COMPARATOR

SAFEGUARDING OUR INNOVATIONS IS A TOP PRIORITY



PATENTS

Commercial Product Patents

- 2 patents for DEXTENZA in Orange Book (expiration: 2030)
- Patent pending for DEXTENZA AC (expected expiration: 2041)

Pipeline Patents

- Issued: OTX-CSI expiring in 2041
- Pending: Expiration 2040+ if granted
 - OTX-TIC
 - OTX-TKI

FDA

REGULATORY

Drug delivery via non-standard dosage forms

- Non-systemic therapies
- No established pathway for traditional generic
- Potential competitors would be required to invest time and capital in full clinical trials



MANUFACTURING

Technical know-how of core hydrogel technology

- Fully integrated manufacturer
- Proprietary know-how developed over more than 15+ yrs.
- Covered by trade secrets

OCULAR THERAPEUTIX IS WELL POSITIONED TO BECOME A STRATEGIC PLAYER IN THE OPHTHALMOLOGY SPACE



Commercial Excellence in US buy-and-bill space

- DEXTENZA is now product contribution positive* in the surgical setting
- Launching into the ophthalmology and optometric office environment
- Future opportunities in retina



Innovation Potential

- Strong pipeline targeting major unmet needs in select indications within markets with \$25B in global annual sales
- Highly leverageable core hydrogel technology for new product opportunities
- Clinical/regulatory expertise in front and back of the eye

AffaMed
Therapeutics

mosaic

Corporate Development

- Established collaboration with AffaMed in Asia
- Able to in-license opportunities to leverage US commercial structure
- Able to out-license technology and ex-US rights to products and product candidates as a source of non-dilutive capital
- Strong balance sheet
- Collaboration with Mosaic – developing long duration complement inhibitor.

ANTICIPATED 2022-2023 MILESTONES



Dextenza®

(dexamethasone ophthalmic insert) 0.4mg
for intracanalicular use

Post surgical ocular inflammation and pain

Estimated \$55-60 Million
in 2022 Net Product
Revenues in the US

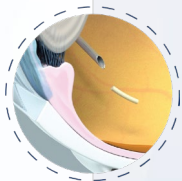


Dextenza®

(dexamethasone ophthalmic insert) 0.4mg
for intracanalicular use

Ocular itching associated with
allergic conjunctivitis

Created a new business unit
focused on optimizing the
commercial opportunity for
DEXTENZA in the office setting



OTX-TKI

(axitinib intravitreal implant)

Wet AMD, DME and RVO

Interim Data Expected
in Q3 2022

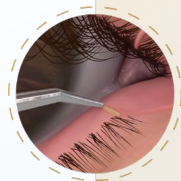


OTX-TIC

(travoprost intracameral implant)

Glaucoma and ocular hypertension

Enrolling Phase 2 Trial

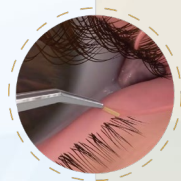


OTX-CSI

(cyclosporine intracanalicular insert)

Dry eye disease

Planning in progress
to advance clinical
development



OTX-DED

(dexamethasone intracanalicular insert)

Episodic dry eye disease

Planning small trial to
determine an
appropriate placebo
comparator



(NASDAQ: OCUL)

OCULAR THERAPEUTIX

BUILDING A NEW STRATEGIC IN OPHTHALMOLOGY

THANK YOU