(NASDAQ: OCUL)

TRANSFORMING DRUG DELIVERY

LEVERAGING A NOVEL TECHNOLOGY PLATFORM

CANTOR HC CONFERENCE

DONALD NOTMAN | CFO | OCTOBER 4, 2019

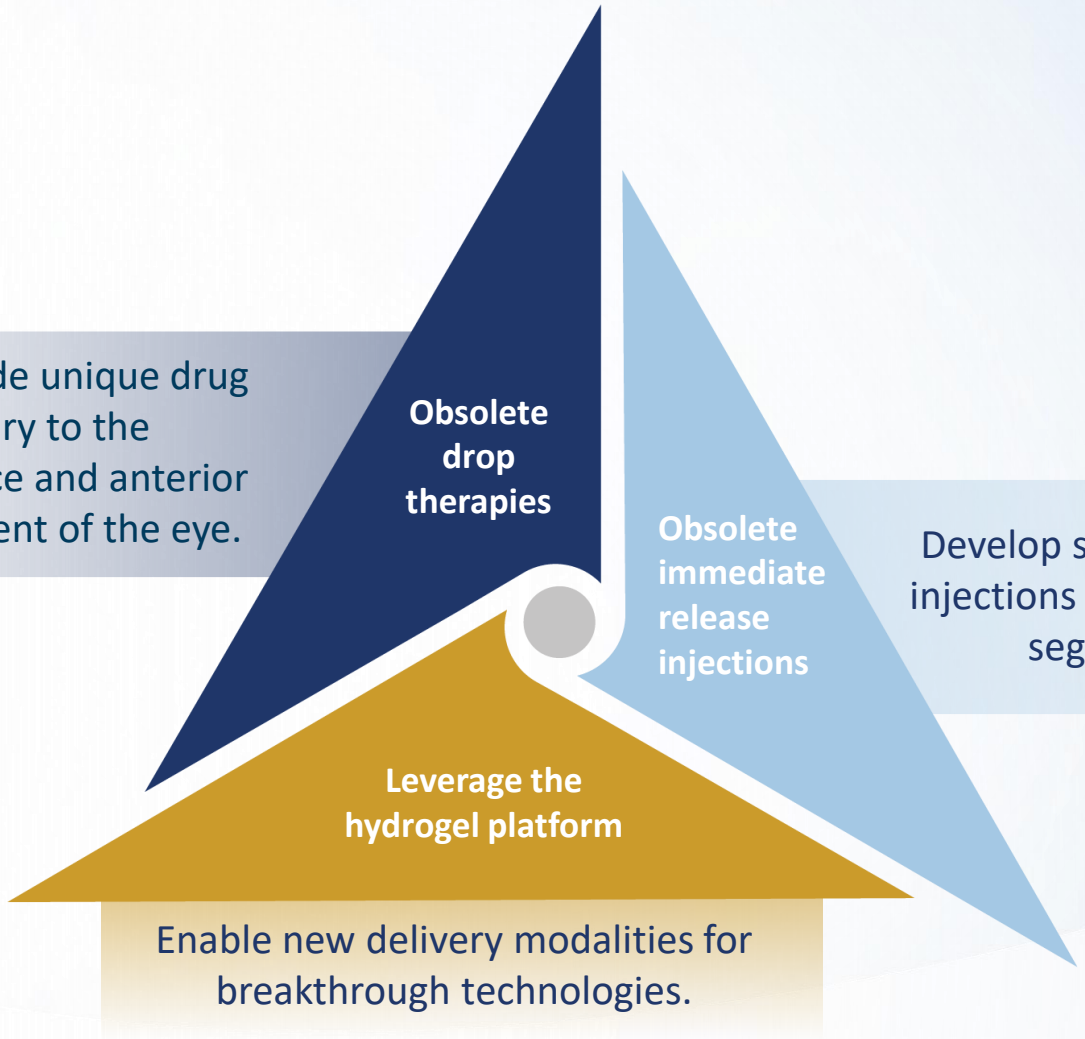
Ocular Therapeutix™

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 development and regulatory status of the Company's product candidates, such as the Company's regulatory submissions for and the timing and conduct of, or implications of results from, clinical trials of, and the prospects of approveability for, DEXTENZA for any additional indications including allergic conjunctivitis, OTX-TP for the treatment of primary open-angle glaucoma and ocular hypertension, OTX-TIC for the treatment of primary open-angle glaucoma and ocular hypertension, OTX-TKI for the treatment of retinal diseases including wet AMD, and OTX-IVT as an extended-delivery formulation of the VEGF trap aflibercept for the treatment of retinal diseases including wet AMD; the Company's post-approval studies of ReSure Sealant; the ongoing development of the Company's extended-delivery hydrogel depot technology; the potential utility or commercial potential of any of the Company's product candidates; the potential benefits and future operation of the collaboration with Regeneron Pharmaceuticals, including any potential future payments thereunder; 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 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, those related to 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 retain regulatory approval of DEXTENZA, ReSure Sealant or any product candidate that receives regulatory approval, the ability to maintain reimbursement codes for DEXTENZA, the initiation, timing and conduct of clinical 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, 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 outcome of the Company's ongoing legal proceedings and need for additional financing or other actions 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 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.

POSITIONED TO DEVELOP BREAKTHROUGH TREATMENTS

WE BELIEVE THE APPROVAL OF DEXTENZA® IS ONLY THE BEGINNING



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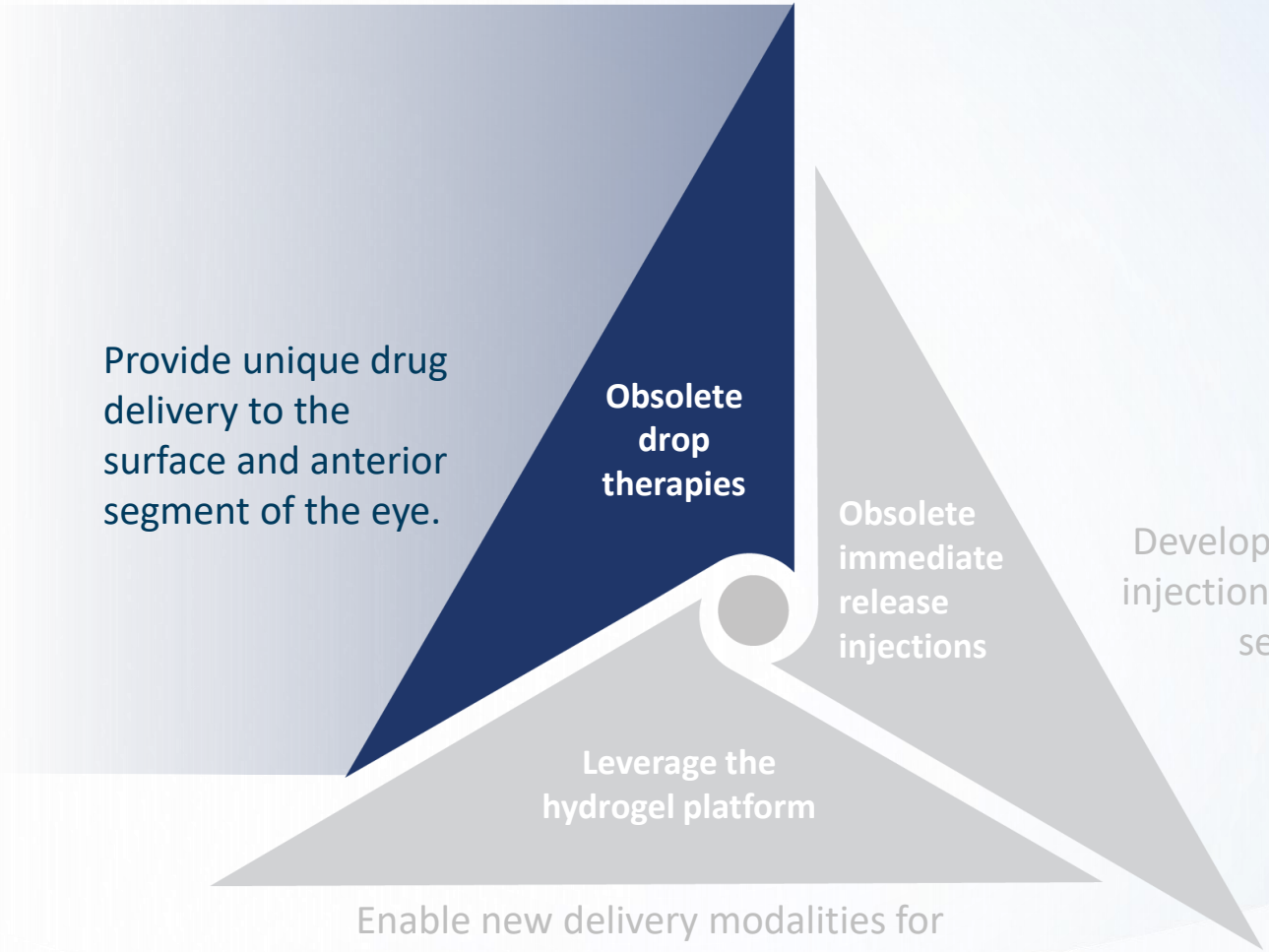
POSITIONED TO DEVELOP BREAKTHROUGH TREATMENTS



Ocular Therapeutix™

Dextenza®

(dexamethasone ophthalmic insert) 0.4 mg
for intracanalicular use

BIG TIME INNOVATION[1]

THE FIRST AND ONLY
OPHTHALMIC STEROID INSERT

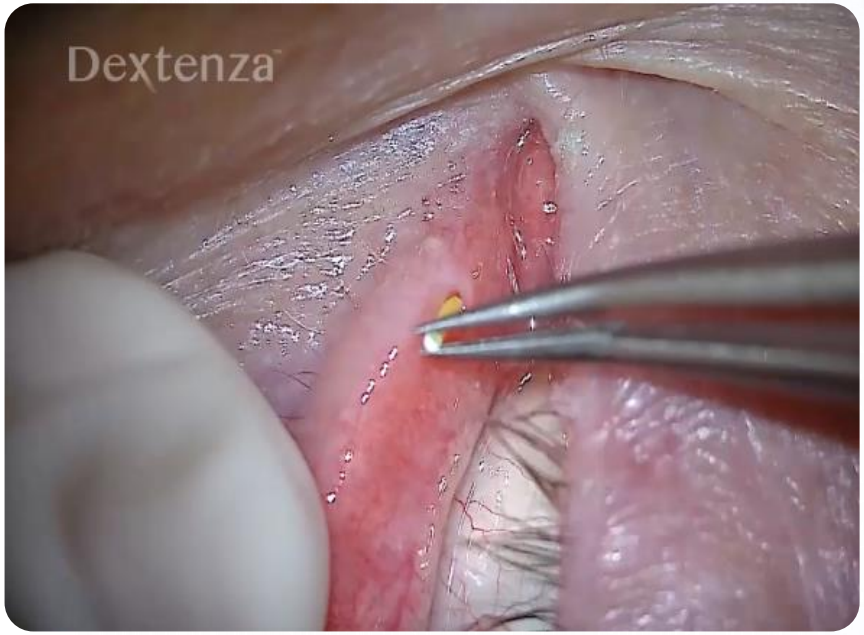
PRESERVATIVE-FREE INTRACANALICULAR INSERT[2]
SUSTAINED DELIVERY FOR UP TO 30 DAYS[2]

References: 1. Sawhney AS, Jarrett P, Bassett M, Blizzard C, inventors; Incept, LLC, assignee. Drug delivery through hydrogel plugs. US patent 8,409,606 B2. April 2, 2013.
2. DEXTENZA [package insert]. Bedford, MA: Ocular Therapeutix, Inc; 2019.

INTRACANALICULAR ADMINISTRATION AVOIDS THE BURDEN OF EYE DROPS

CORTICOSTEROID DROP REGIMENS ARE COMPLEX AND ARE DEPENDENT ON PATIENT COMPLIANCE

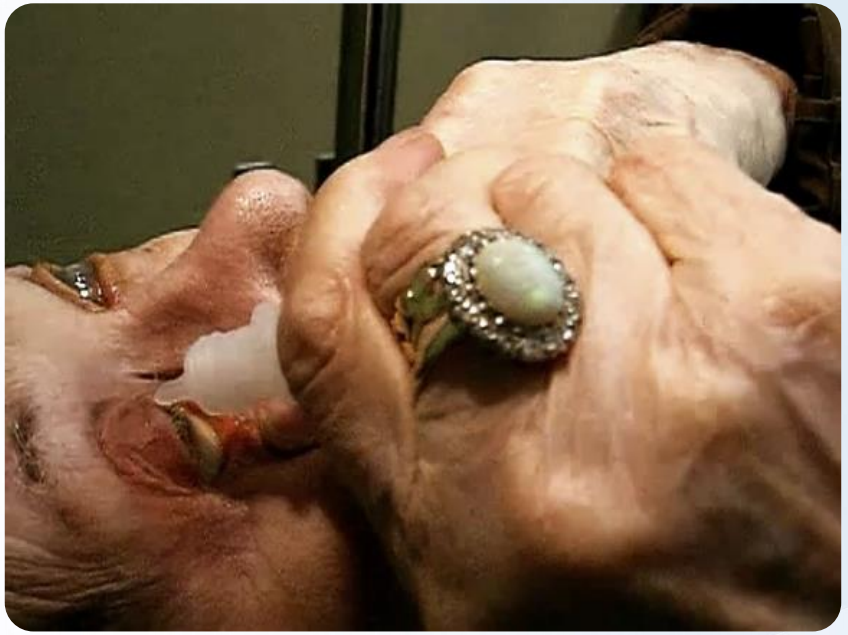
Dextenza®
(dexamethasone ophthalmic insert) 0.4 mg



DEXTENZA INSERTION

1 insert provides a full course of therapy

OPHTHALMIC DROPS



DROP ADMINISTRATION

70 applications over 1 month with a different frequency every week

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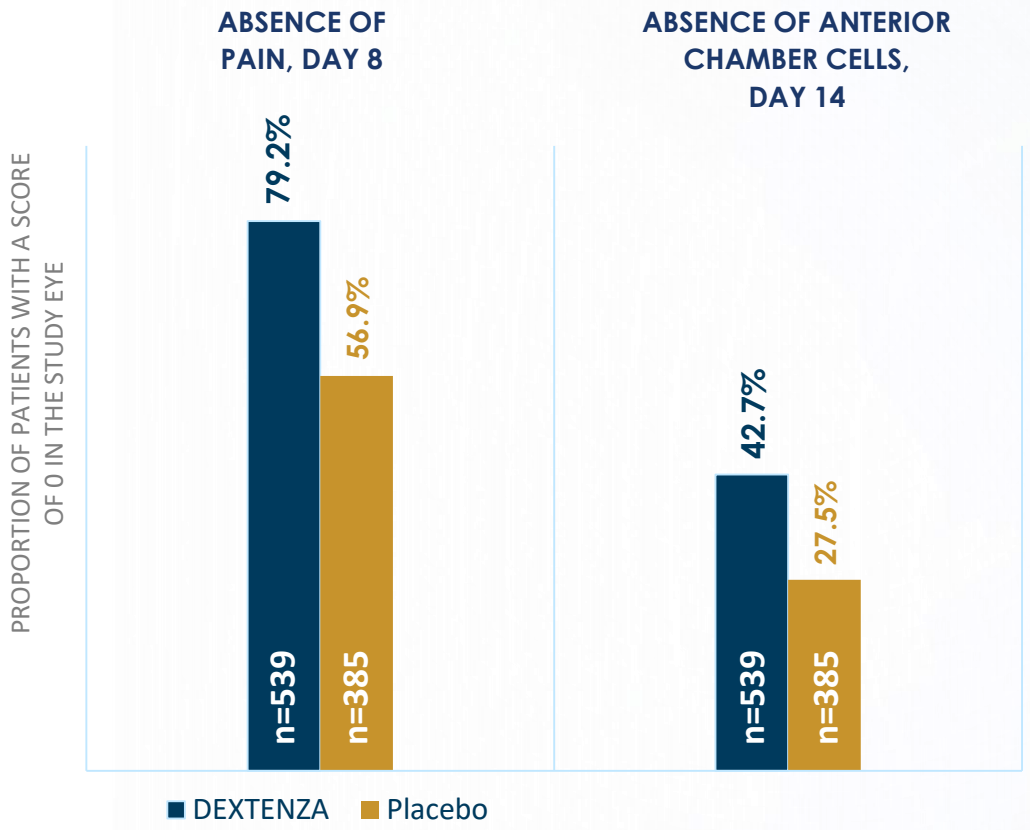
THE SAFETY & EFFICACY OF DEXTENZA® HAS BEEN DEMONSTRATED IN AN EXTENSIVE CLINICAL PROGRAM

POOLED RESULTS OF THREE PHASE 3 CLINICAL TRIALS FOR THE TREATMENT OF POST-OPERATIVE PAIN AND INFLAMMATION



TREATMENT-RELATED OCULAR ADVERSE EVENTS

Phase 3 Trials		
# of Subjects, n (%)	**DEXTENZA n=539**	**Placebo n=385**
Any Ocular AEs	**4 (0.7%)**	**2 (0.5%)**
Conjunctivitis	0	1 (0.3%)
Eyelid Irritation	1 (0.2%)	0
Increased Lacrimation	2 (0.4%)	0
Dacryocanaliculitis	0	1 (0.3%)
Increased Intraocular Pressure	1 (0.2%)	0

*Statistically Significant; $P \leq 0.0001$ ITT-LOCF Population

Walters TR, et al. Efficacy and Safety of Sustained Release Dexamethasone for the Treatment of Ocular Pain and Inflammation after Cataract Surgery: Results from Two Phase 3 Studies. *J Clin Exp Ophthalmol*. 2016; 7(4): 572. Tyson S, et al. Safety and Efficacy of an Extended-Release Dexamethasone Insert for Treatment of Ocular Inflammation and Pain after Surgery: Phase 3 Study. Accepted Abstract for the American Society of Cataract and Refractive Surgery 2017 Symposium & Congress. Los Angeles, CA, May 5-9, 2017.

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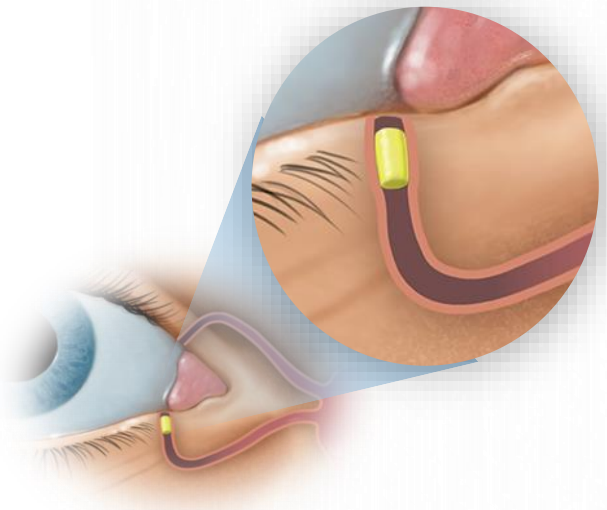
DEXTENZA® STATUS

FDA APPROVED

DEXTENZA® is a corticosteroid indicated for the treatment of ocular inflammation and pain following ophthalmic surgery.



FORMAL LAUNCH IN PROGRESS FOR ~ 75 DAYS

- 20 Key Account Managers in place supported by 5 Field Reimbursement Managers
- Active with “DEXTENZA Days” since mid-May
- Over 6,000 patients treated by over 300 physicians to date

REIMBURSEMENT AND CODING

- **J-code 1096** became effective October 1, 2019
  - ✓ Replaces **C-code 9048**
  - ✓ Maintains 3 year pass-through payment status
  - ✓ Allows for billing in the office setting
- Procedure **CPT code 0356T** (currently in place)
- DEXTENZA 360 external reimbursement HUB (active)

LIFECYCLE

- Active investigator-initiated trials (IIT) program
- 80 patient confirmatory P3 Allergic Conjunctivitis trial enrolling
  - ✓ U.S., multi-center, 1:1 randomized, double-masked, placebo-controlled trial
  - ✓ DEXTENZA vs. a placebo in conjunctival allergen challenge model
  - ✓ Primary efficacy endpoint is ocular itching at multiple time points over 30 days
  - ✓ Topline data anticipated in first half of 2020

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SURGICAL SALE OF A PHARMACEUTICAL PRODUCT

4 million cataract procedures per year in the US,
50% are performed under Medicare Part B, where DEXTENZA has full coverage.*

OPHTHALMOLOGIST

ASC & CLINIC STAFF

PAYERS (regional MACs)

PHARMACY & THERAPEUTICS (P&T) COMMITTEE

SURGICAL COORDINATOR

~60% of the annual 2 million Medicare Part B surgeries are done in ~900 surgical centers[1]

*Based on reimbursement discussions, specifically on transitional pass-through payment status, with subject matter experts SOURCE: Medicare National/HCPCS Aggregate Table, CY2015 https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Physician-and-Other-Supplier2015.html 1. Medicare Provider Utilization Data, 2016.

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DEXTENZA INVOLVES A COMPLEX SELL, INCLUDES MANY STAKEHOLDERS AND HAS THE POTENTIAL FOR A SIGNIFICANT PAYOFF

Training & Integration
DEXTENZA Day

First Commercial Order
(1-2 inserts)

Dextenza®
(dexamethasone ophthalmic insert) 0.4 mg
for intracanalicular use

Site Conversion
Becomes Standard Part of
Cataract Surgical Protocol
Medicare Part B Patients

Re-order
(10-20 Inserts)

Successful 1st Insertions

Reimbursement
Claims Submitted

MAC Payment
Received

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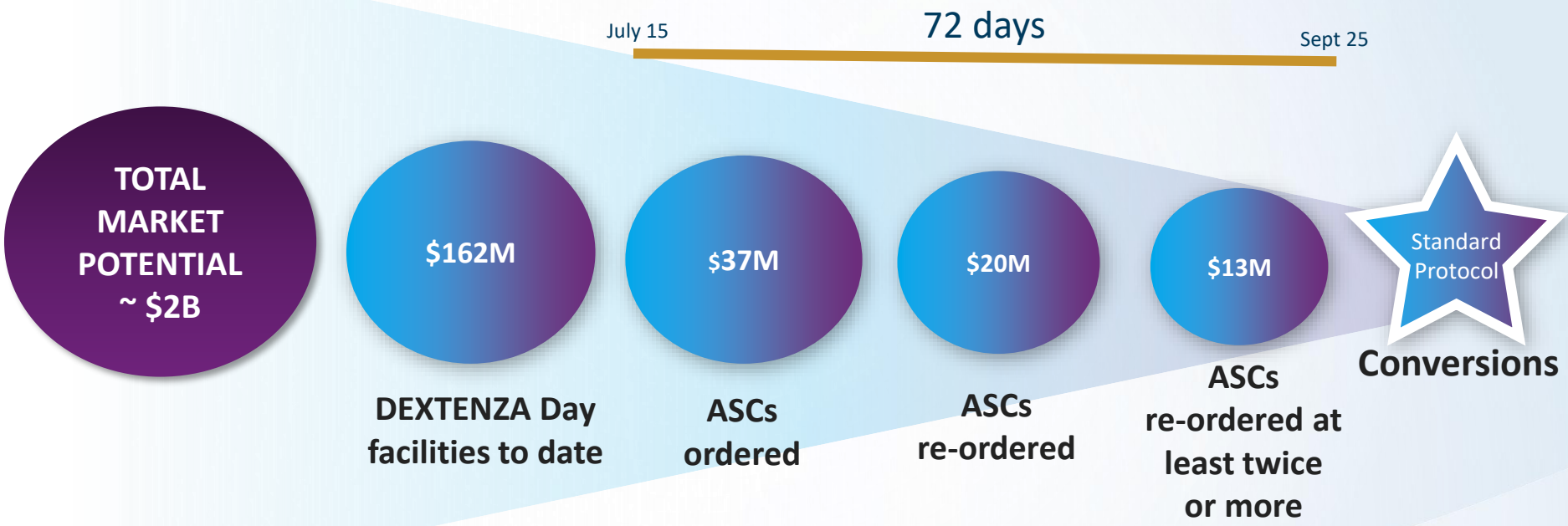
THE STRATEGY IN PROCESS

DEXTENZA advancing through the sales cycle



Addressable market potential at each stage based on actual cumulative value of total cataract volume of each ambulatory surgery center

CMS, Medicare Provider Utilization Data, 2016

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DEXTENZA® OPENS NEW POTENTIAL REIMBURSEMENT PATHWAYS

Permanent separate drug payment provides the flexibility to price DEXTENZA based on the clinical value, while enhancing provider revenues and spurring adoption

Existing payment	Drug payment	Procedure payment*
Cataract professional fee to physician Cataract facility fee	**J1096** **(effective Oct 1, 2019)** ASP + DEXTENZA drug payment	**0356T** Professional fee to physician

* 0356T is a Category III CPT code; no fee schedule established

Sources: 2018 Medicare Physician Fee Schedule, 2018 Medicare ASC Final Rule, 2018 Medicare OPPS Final Rule, Medicare Modernization Act of 2003

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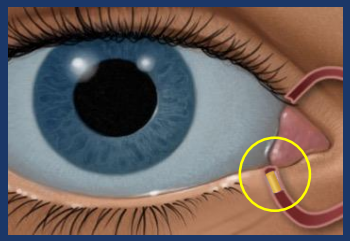
NON-COMPLIANCE IS A SIGNIFICANT PROBLEM IN THE TREATMENT OF GLAUCOMA

OTX-TP PHASE 3

Intracanalicular Insert



DESCRIPTION

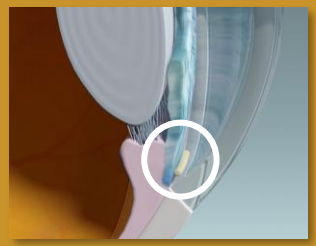
- Up to 90 days of sustained release of travoprost
- Can be visualized and is preservative-free
- Little to no eye redness

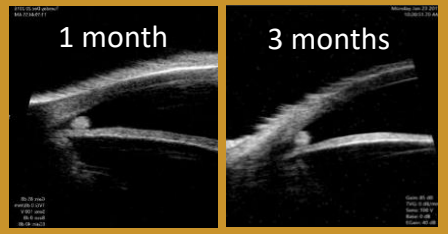
STATUS

- First of two Phase 3 trials complete, top-line readout May 2019
- Meeting with FDA scheduled for October 30

OTX-TIC PHASE 1

Intracameral Injection





Preclinical images, courtesy of OTX.

DESCRIPTION

- Up to 6 months of sustained release of travoprost
- Can be visualized and is preservative-free
- Consistent resorption
- Minimal effect on endothelial cells

STATUS

- Phase 1 study is ongoing
  - First, therapeutic-dose cohort fully enrolled
    - Continuing long term evaluation of low-dose cohort
  - Second, higher-dose cohort fully enrolled
  - Third, therapeutic-dose cohort with fast-degrading hydrogel enrollment begun

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OTX-TP PHASE 3 TRIAL: TOPLINE EFFICACY RESULTS

REDUCTION IN INTRAOCULAR PRESSURE (CHANGE FROM BASELINE)

Diurnal Timepoints	2 Weeks			6 Weeks			12 Weeks		
	OTX-TP mm Hg	Placebo mm Hg	P-value	OTX-TP mm Hg	Placebo mm Hg	P-value	OTX-TP mm Hg	Placebo mm Hg	P-value
8:00 AM	**-5.72**	**-3.88**	**<.0001**	**-4.81**	**-4.01**	**0.0181**	***-3.91***	***-3.52***	***0.2521***
10:00 AM	**-4.92**	**-3.16**	**<.0001**	**-4.03**	**-3.23**	**0.0077**	**-3.34**	**-2.63**	**0.0234**
4:00 PM	**-5.22**	**-3.18**	**<.0001**	**-4.16**	**-3.14**	**0.0004**	**-3.27**	**-2.6**	**0.031**

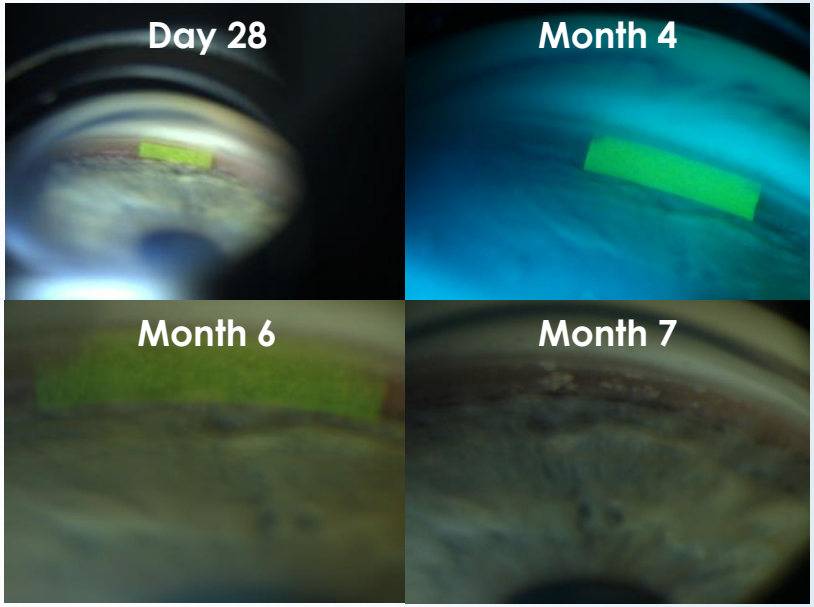
FAS, Baseline-adjusted LS Means

OTX-TIC PHASE 1 INTERIM FINDINGS

SUMMARY FROM LOW-DOSE COHORT

- **Clinically-meaningful decrease in IOP**
  IOP values were decreased as early as two days
- **Duration of therapy**
  IOP-lowering out to 13 months
- **Bioresorbable**
  Implant biodegraded by 7 months
- **Implant location and movement**
  Implant did not move and was visualized in all patients
- **Corneal health**
  No changes from baseline observed; preservative-free

IMPLANTS VISUALIZED IN ALL SUBJECTS AT ALL VISITS THROUGH 7 MONTHS



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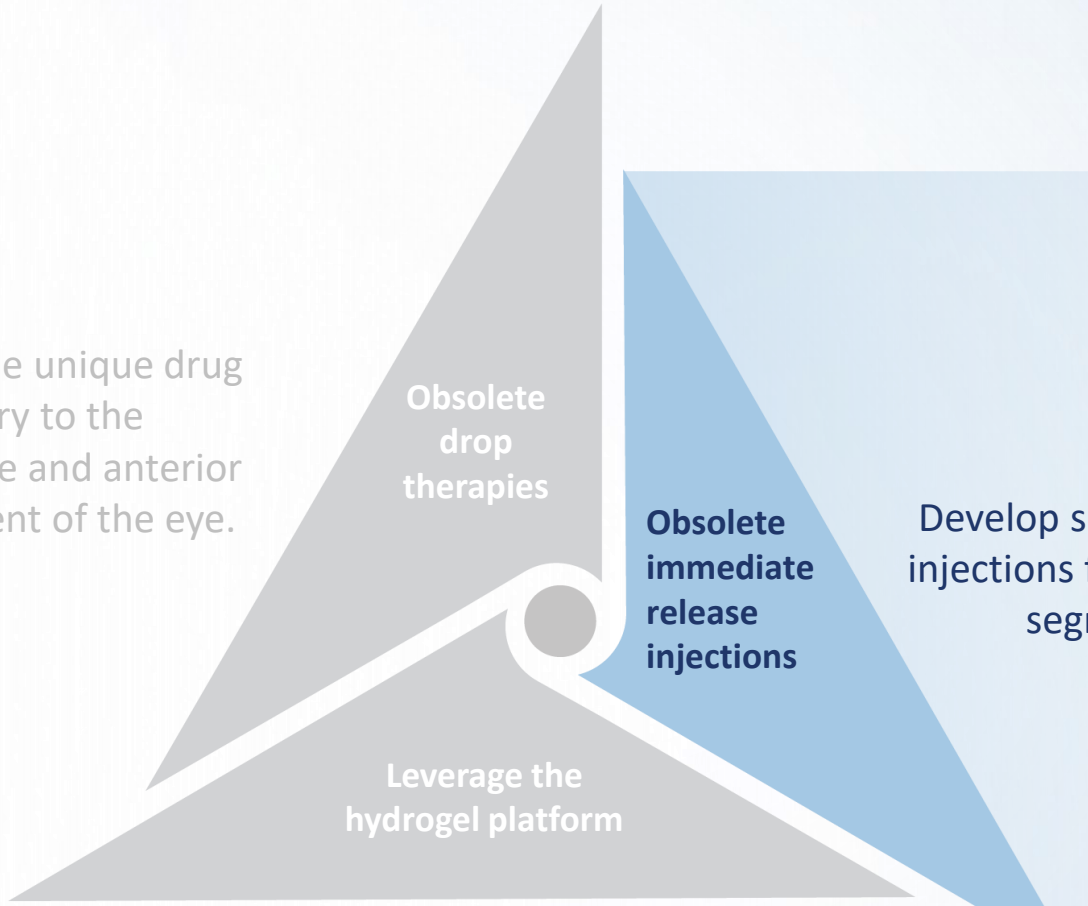
POSITIONED TO DEVELOP BREAKTHROUGH TREATMENTS



Provide unique drug delivery to the surface and anterior segment of the eye.

Develop sustained release injections for the posterior segment of the eye.

Enable new delivery modalities for breakthrough technologies.

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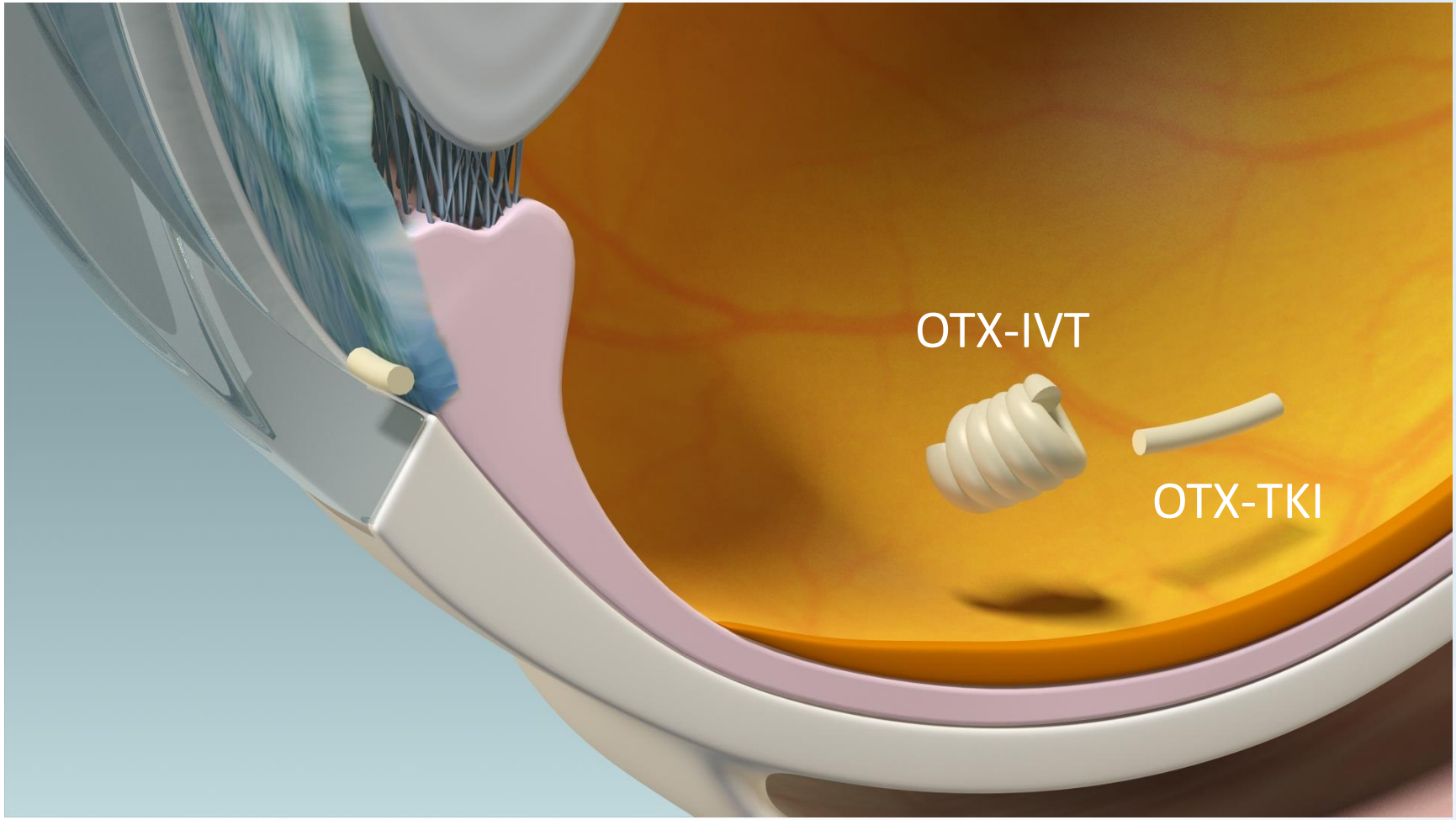
SUSTAINED RELEASE INJECTIONS

INTRAVITREAL IMPLANTS



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IMPROVING TREATMENT TO THE BACK OF THE EYE

SHAPE-CHANGING IMPLANTS WITH UP TO 6 MONTHS OF DRUG DELIVERY

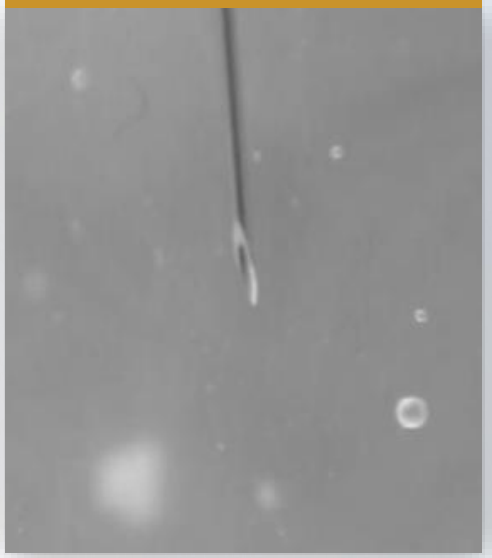
VEGF monoclonal antibody (OTX-IVT)*

HIGH DRUG LOAD

STATUS

Ongoing discussions with Regeneron regarding potential additional formulations and next steps

Tyrosine kinase inhibitor (OTX-TKI)



LOW DRUG LOAD

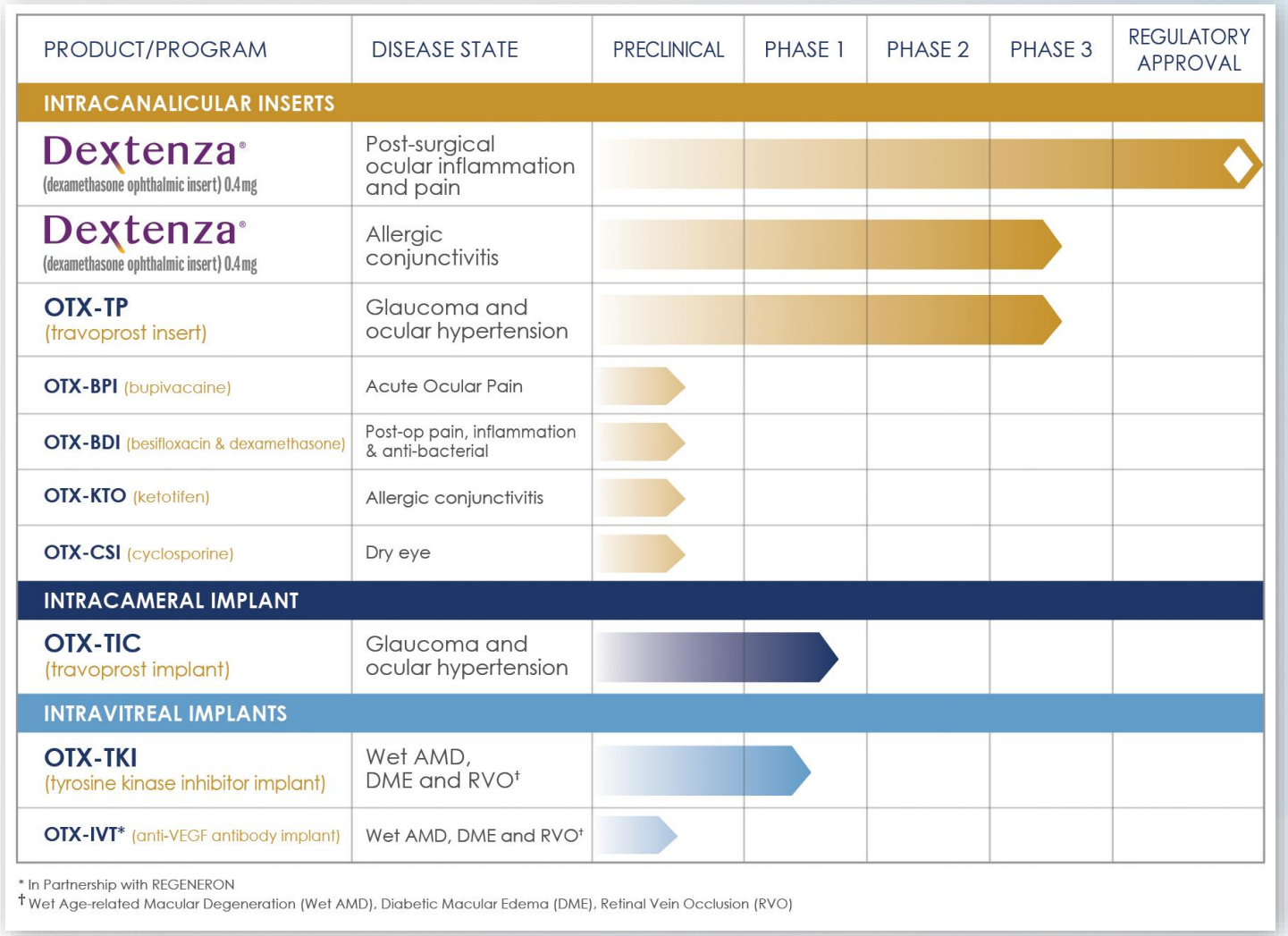
STATUS

Phase 1 clinical trial in Australia
- cohort 1 complete
- cohort 2 dose escalation enrolling

*In partnership with REGENERON

Videos shown in real time in simulated vitreous humor

PIPELINE AT A GLANCE



PRODUCT/PROGRAM	DISEASE STATE	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	REGULATORY APPROVAL
INTRACANALICULAR INSERTS						
Dextenza® (dexamethasone ophthalmic insert) 0.4mg	Post-surgical ocular inflammation and pain					
Dextenza® (dexamethasone ophthalmic insert) 0.4mg	Allergic conjunctivitis					
OTX-TP (travoprost insert)	Glaucoma and ocular hypertension					
OTX-BPI (bupivacaine)	Acute Ocular Pain					
OTX-BDI (besifloxacin & dexamethasone)	Post-op pain, inflammation & anti-bacterial					
OTX-KTO (ketotifen)	Allergic conjunctivitis					
OTX-CSI (cyclosporine)	Dry eye					
INTRACAMERAL IMPLANT						
OTX-TIC (travoprost implant)	Glaucoma and ocular hypertension					
INTRAVITREAL IMPLANTS						
OTX-TKI (tyrosine kinase inhibitor implant)	Wet AMD, DME and RVO†					
OTX-IVT* (anti-VEGF antibody implant)	Wet AMD, DME and RVO†					

* In Partnership with REGENERON

† Wet Age-related Macular Degeneration (Wet AMD), Diabetic Macular Edema (DME), Retinal Vein Occlusion (RVO)

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ANTICIPATED NEAR-TERM MILESTONES

POSITIONING OCULAR THERAPEUTIX AS THE DRUG DELIVERY COMPANY

US launch of DEXTENZA® in 2019 with reimbursement using J-code 1096 effective October 1, 2019 and CPT code 0356T

Progress of pipeline programs

- OTX-TP – discussion of Ph3A results with FDA (October 30, 2019)
- OTX-TIC – plans to evaluate 2 new formulations in the near future
- OTX-TKI – second therapeutic dose cohort has begun enrollment

Take new product candidates into the clinic in 2019

Actively seek new business development opportunities

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(NASDAQ: OCUL)

TRANSFORMING DRUG DELIVERY

LEVERAGING A NOVEL TECHNOLOGY PLATFORM

THANK YOU

Ocular Therapeutix™