(NASDAQ: OCUL)

OTX-TIC, AN INTRACAMERAL HYDROGEL-BASED TRAVOPROST IMPLANT TO TREAT PATIENTS WITH GLAUCOMA & OCULAR HYPERTENSION

PHASE 1 TRIAL RESULTS

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Ocular Therapeutix™

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Financial Disclosures:

- Dr. Goldstein is an employee of Ocular Therapeutix, Inc.

Study Disclosures:

- The presentation discusses an investigational product, OTX-TIC. Its efficacy and safety profile has not been established and it has not been approved by the FDA
- Funding was provided by Ocular Therapeutix, Inc. for the study

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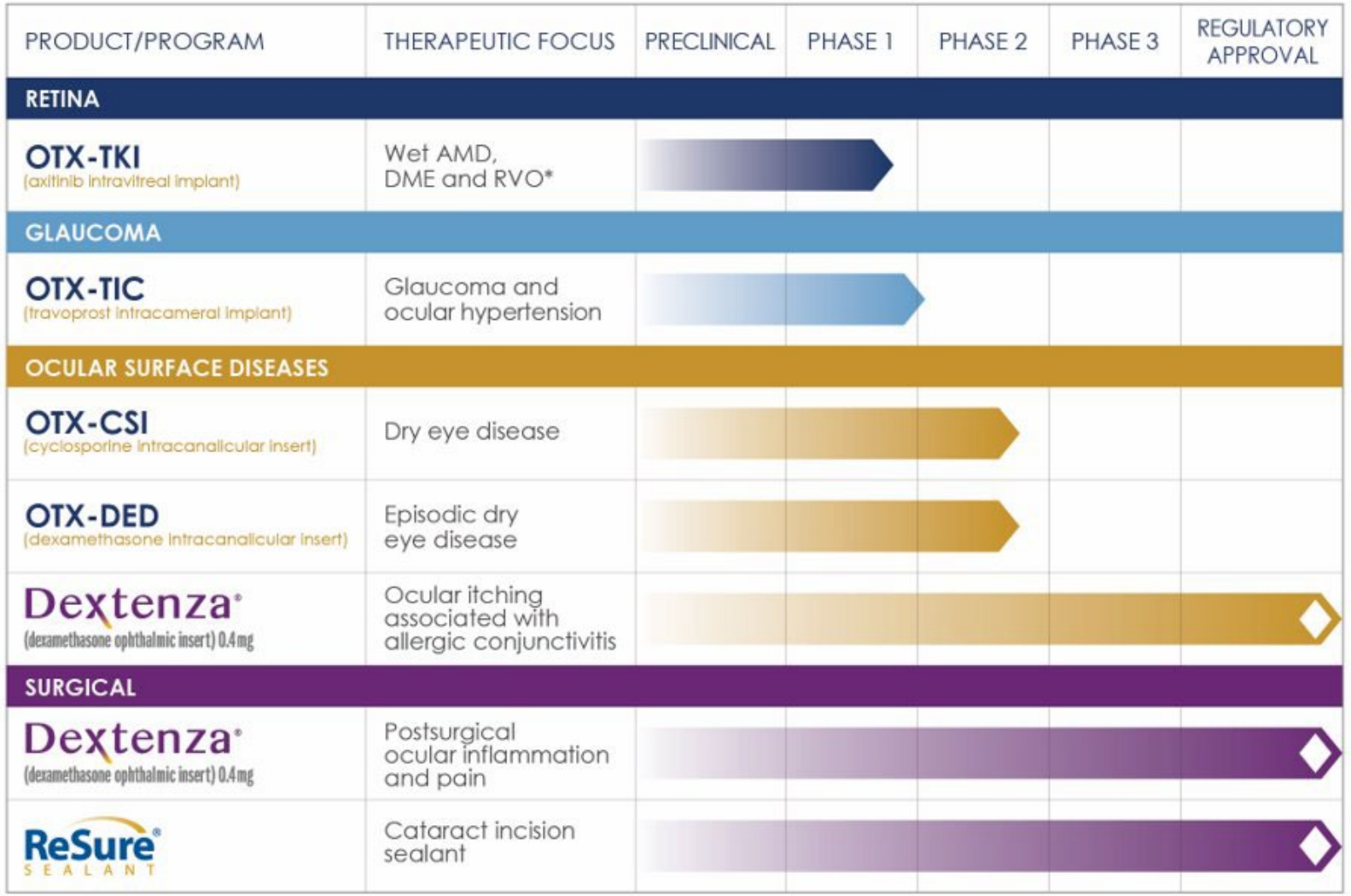
PIPELINE AT A GLANCE

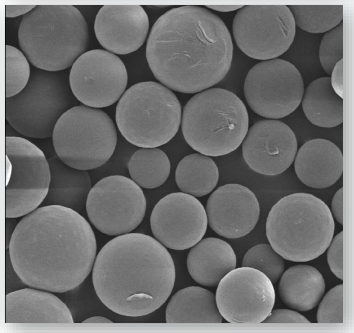


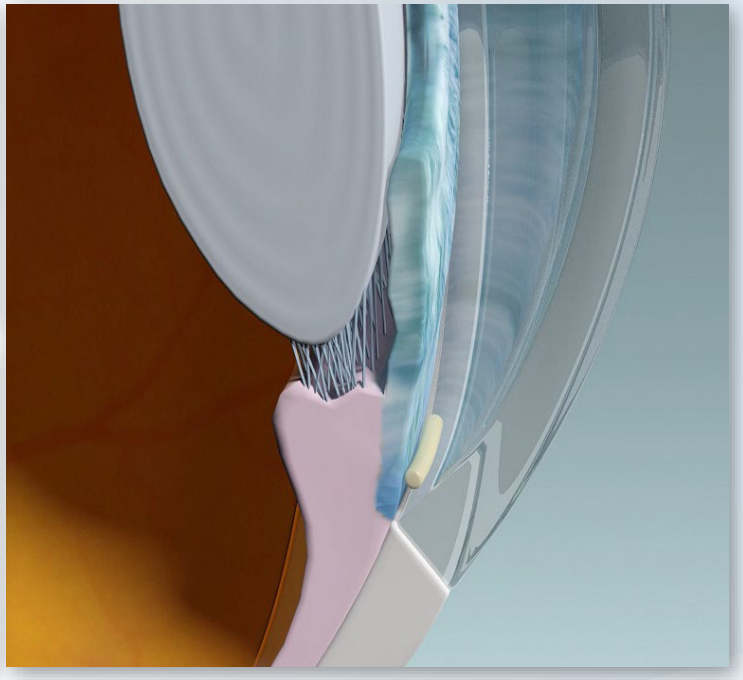
DEXTENZA [package insert]. Bedford, MA: Ocular Therapeutix Inc; 2021 https://www.dextenza.com/wp-content/uploads/DEXTENZA-Full-Prescribing-Information.pdf
ReSure Sealant. Instructions for Use. LCN 80-1004-011 Rev C. Ocular Therapeutix, Inc., Bedford, MA. https://www.resuresealant.com/wp-content/uploads/2021/03/LCN-80-1004-011-Rev-C-ReSure-Sealant-Instructions-for-Use.pdf

DRUG DELIVERY TO THE INTRACAMERAL SPACE

Factors for Consideration in Designing a Long Duration Intracameral Implant:

- ❑ Clinically-meaningful decrease in IOP
  Well-tolerated with clinically-meaningful efficacy
- ❑ Duration of therapy
  4 months or more
- ❑ Bioresorbable
  Duration of drug and duration of carrier vehicle
- ❑ Implant location and movement
  Limited movement and cosmetically invisible, but able to be monitored
- ❑ Corneal health
  Gentle to the endothelium





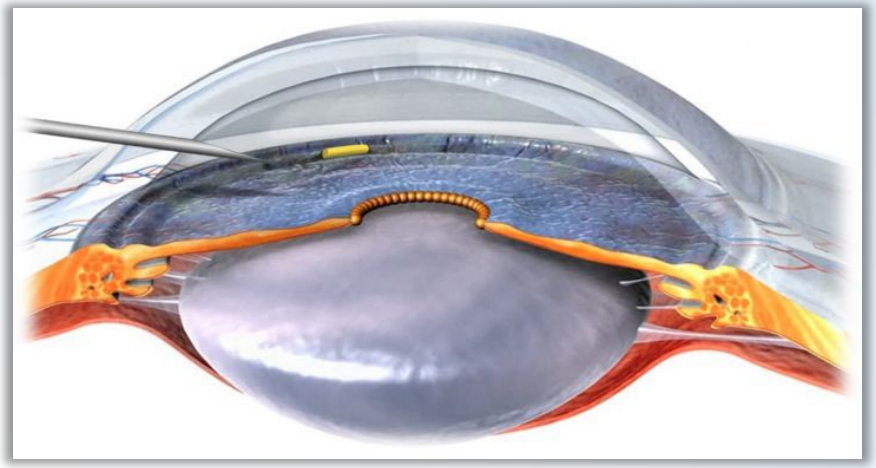
OTX-TIC (TRAVOPROST IMPLANT) FOR INTRACAMERAL INJECTION

Polyethylene glycol (PEG)-based Hydrogel Platform

- **Completely biodegrades** via ester hydrolysis
- **Biocompatible** with low potential for inflammation

Travoprost (Active Ingredient)

- Encapsulated in microparticles for controlled and sustained delivery over months



OTX-TIC, a novel hydrogel-based, biodegradable, sustained-release travoprost implant

- Goal of delivering travoprost for 4-6 months with a single implant
- Preservative-free
- Hands-free alternative to traditional chronic eye drop therapy
- Administered via a single injection with proprietary injector (26G-27G)
- Fully biodegradable

OTX-TIC PHASE 1 STUDY DESIGN

DESIGN

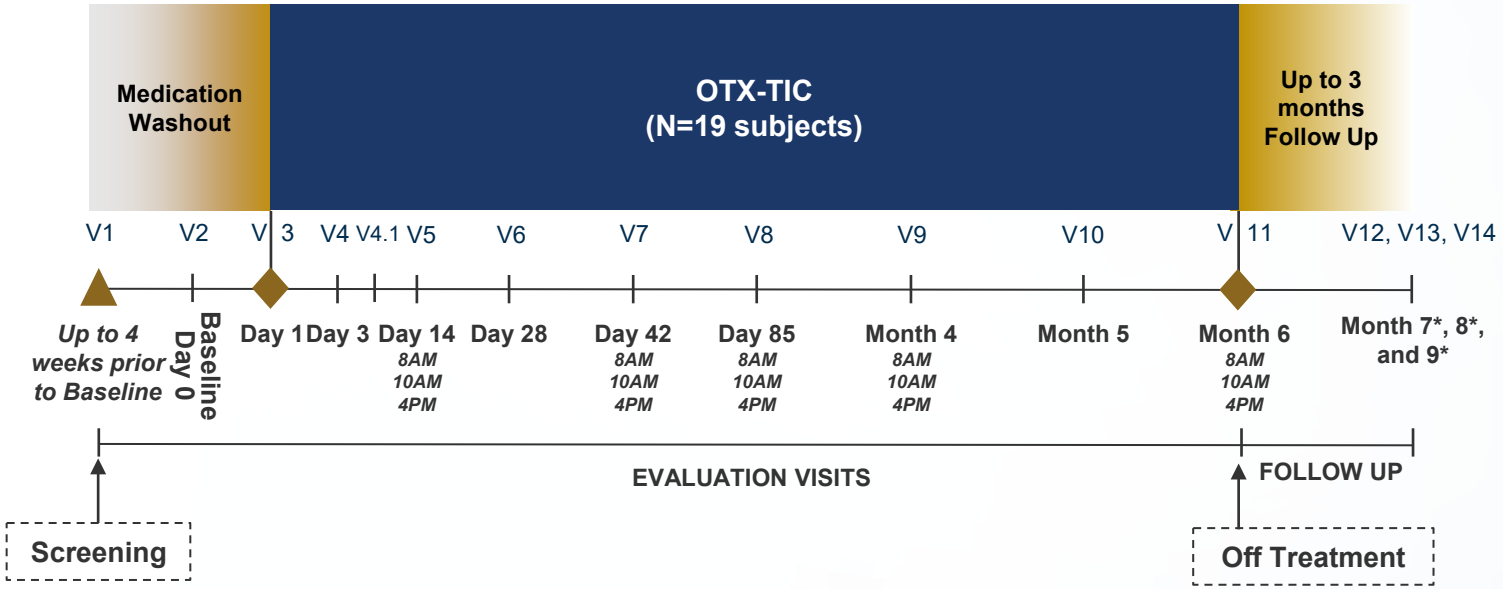
- Open-label, proof-of-concept study
- US study, 19 subjects at 5 sites
- One eye per patient will be treated
- Key Inclusion criteria:
  - Controlled ocular HTN or POAG
  - Open, normal anterior chamber angles on gonioscopy

EVALUATIONS

- Safety, tolerability, and biological activity
- Diurnal IOP at Baseline, 2 weeks, 6 weeks, 12 weeks, Month 4, and Month 6 (8 AM, 10 AM, 4 PM)

ACTIVE COMPARATOR

- Non-study eye receives **topical travoprost** daily



	OTX-TIC Dose
Cohort 1 (n=5)	15 µg
Cohort 2 (n=4)	26 µg
Cohort 3 (n=5)	15 µg (fast-degrading hydrogel)
Cohort 4 (n=5)	5 µg (fast-degrading hydrogel)

* Monthly visits until IOP is within 10% of baseline or until clinically stable

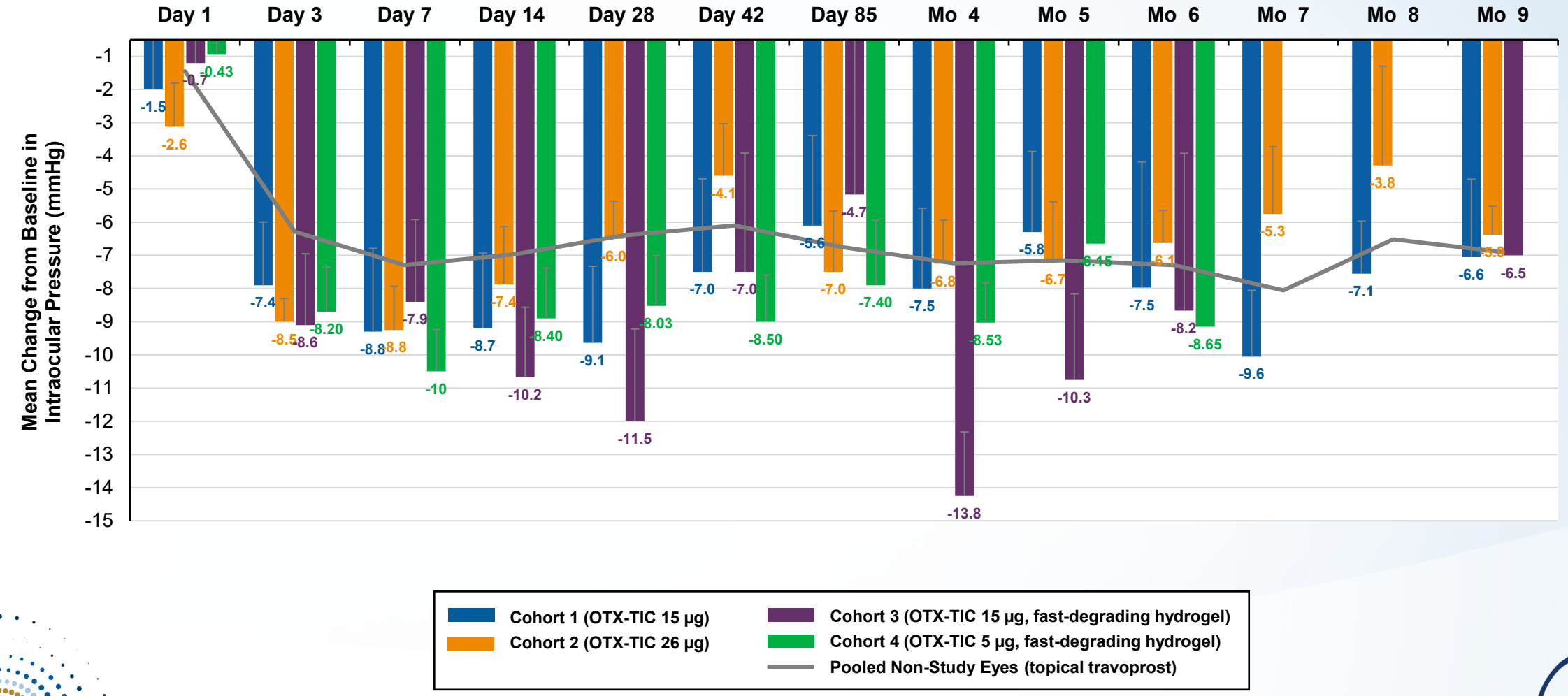
BASELINE DEMOGRAPHICS

	Cohort 1 (n=5)	Cohort 2 (n=4)	Cohort 3 (n=5)	Cohort 4 (n=5)	All Subjects (N=19)
Mean age (SD), years	72.8 (5.6)	74.3 (7.1)	65.8 (7.9)	66.0 (14.4)	69.5 (10.2)
Range	65-80	63-82	53-76	47-84	47-84
Female, n (%)	3 (60%)	4 (100%)	4 (80%)	4 (80%)	15 (78.9%)
Race, n (%)					
White	5 (100%)	2 (50%)	2 (40%)	5 (100%)	14 (73.4%)
Black	0	2 (50%)	3 (60%)	0	5 (26.3%)
Mean Baseline IOP (SD) After Washout, mmHg					
Study eye (OTX-TIC)	26.8 (3.5)	26.1 (0.9)	26.5 (4.3)	24.9 (0.8)	26.1 (2.8)
Non-study eye (Topical travoprost)	25.8 (2.5)	25.1 (0.9)	25.2 (4.0)	22.9 (1.9)	24.7 (2.7)
IOP Lowering Medications Prior to Washout, n (%)					
Naïve	1 (20%)	0	0	3 (60%)	4 (21%)
1 Medication	2 (40%)	3 (75%)	5 (100%)	2 (40%)	12 (63%)
2 Medications	1 (20%)	1 (25%)	0	0	2 (11%)
≥3 Medications	1 (20%)	0	0	0	1 (5%)

NOTE: unmonitored data

CHANGE FROM BASELINE IOP

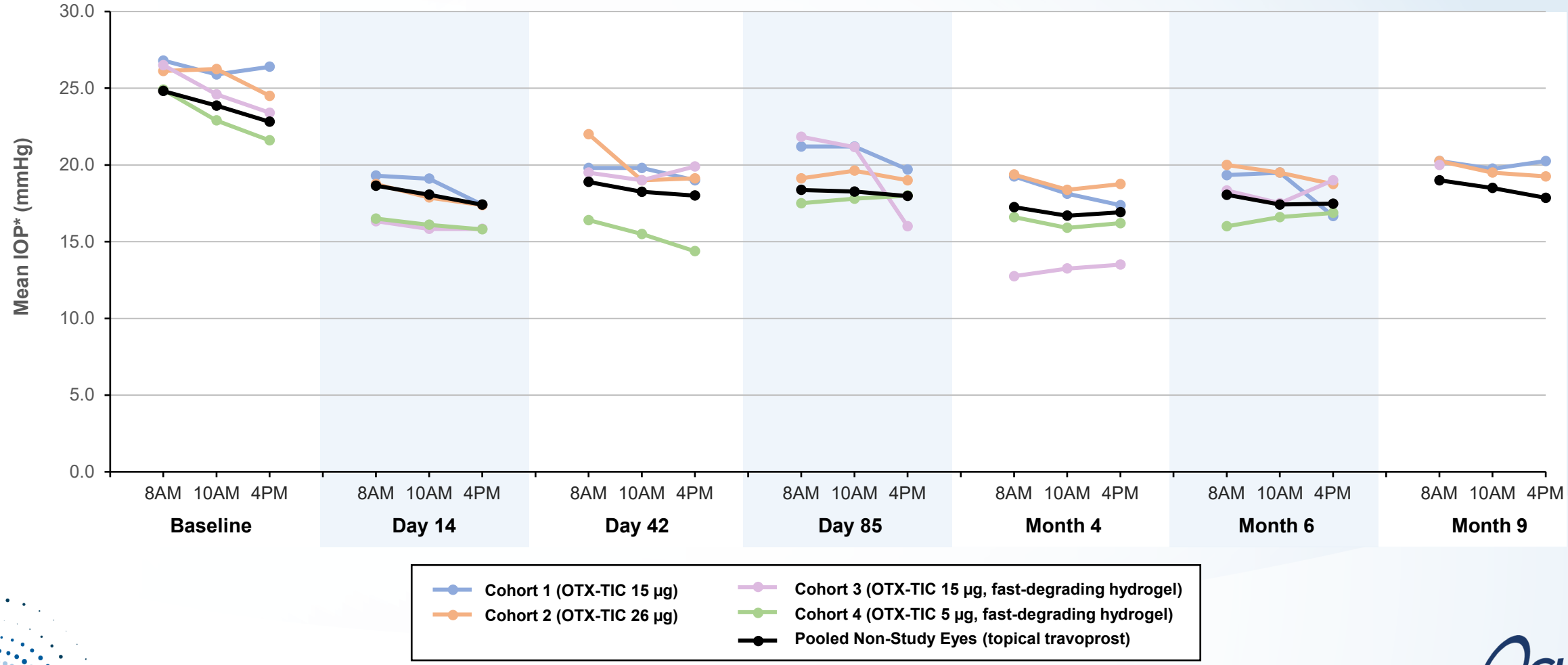
IOP Reduction Began 2 Days Following Implantation of OTX-TIC and was Comparable to Topical Travoprost



NOTE: unmonitored data

DIURNAL IOP

OTX-TIC Reduced IOP Similarly to Topical Travoprost Throughout the 6 Month Study Period



* Subjects who received rescue therapy (ie, IOP lowering medication other than OTX-TIC) were excluded from analysis

NOTE: unmonitored data

DURATION OF EFFECT

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

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)**

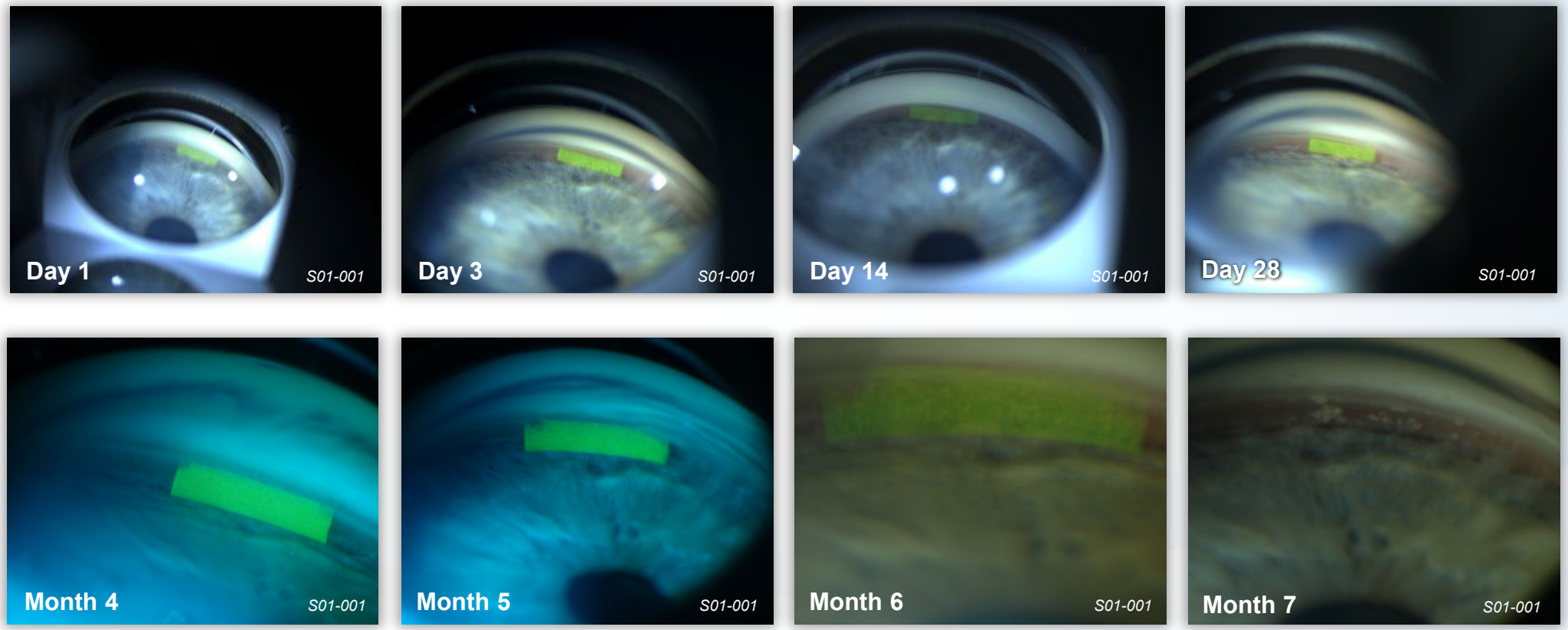
NOTE: unmonitored data

IMPLANT VISUALIZATION

Implant Movement: *No noticeable movement observed*

Biodegradation

- ***Cohorts 1 & 2:*** *Implant biodegraded by 5-7 Months*
- ***Cohorts 3 & 4:*** *Fast-degrading implants biodegraded by 3-5 months in majority of subjects*



SAFETY OVERVIEW

OTX-TIC was generally well tolerated with a favorable safety profile

Ocular Adverse Events in the Study Eye

Ocular Adverse Event Term, n	Cohort 1 (15 µg) N=5	Cohort 2 (26 µg) N=4	Cohort 3 (15 µg) N=5	Cohort 4 (5 µg) N=5	All Cohorts N=19
			Fast-degrading Hydrogel		
Iritis	2	2	1	1	6
Peripheral anterior synechiae	3	0	0	0	3
Corneal edema	0	1	2	0	3
Elevated IOP	0	0	3	0	3
Transient BCVA decrease	0	1	1	0	2
Subconjunctival hemorrhage	0	0	1	0	1
Posterior vitreous detachment	1	0	0	0	1
Inferior corneal keratic precipitates	0	1	0	0	1
Total AEs	**6**	**5**	**8**	**1**	**20**

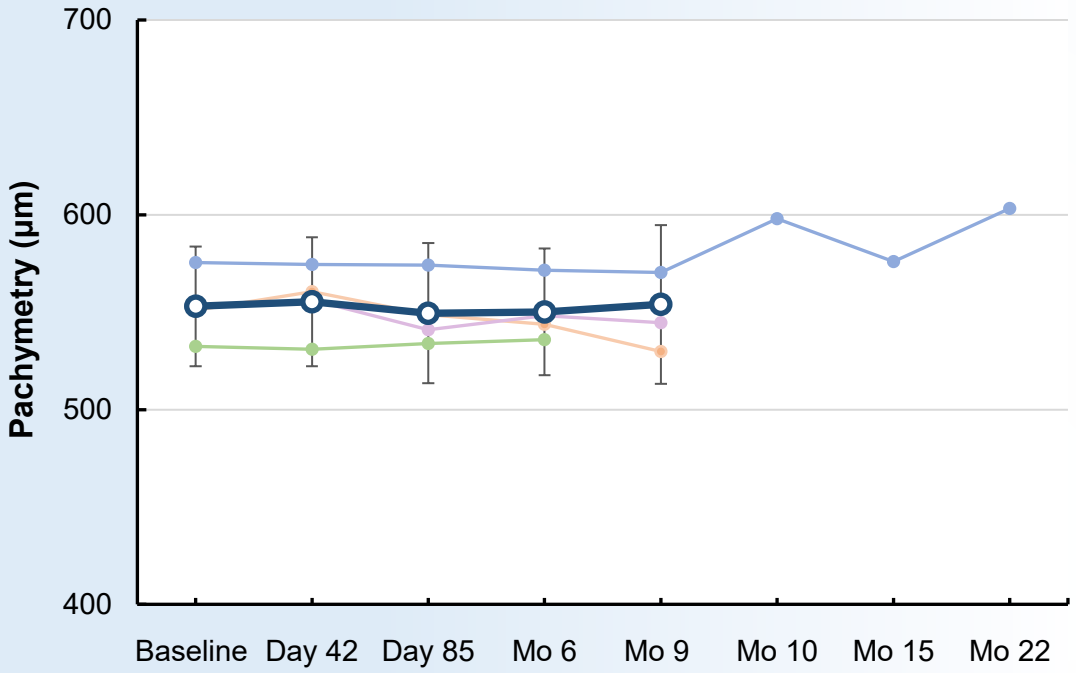
In Cohort 1, two same subjects had iritis and peripheral anterior synechiae.

NOTE: unmonitored data

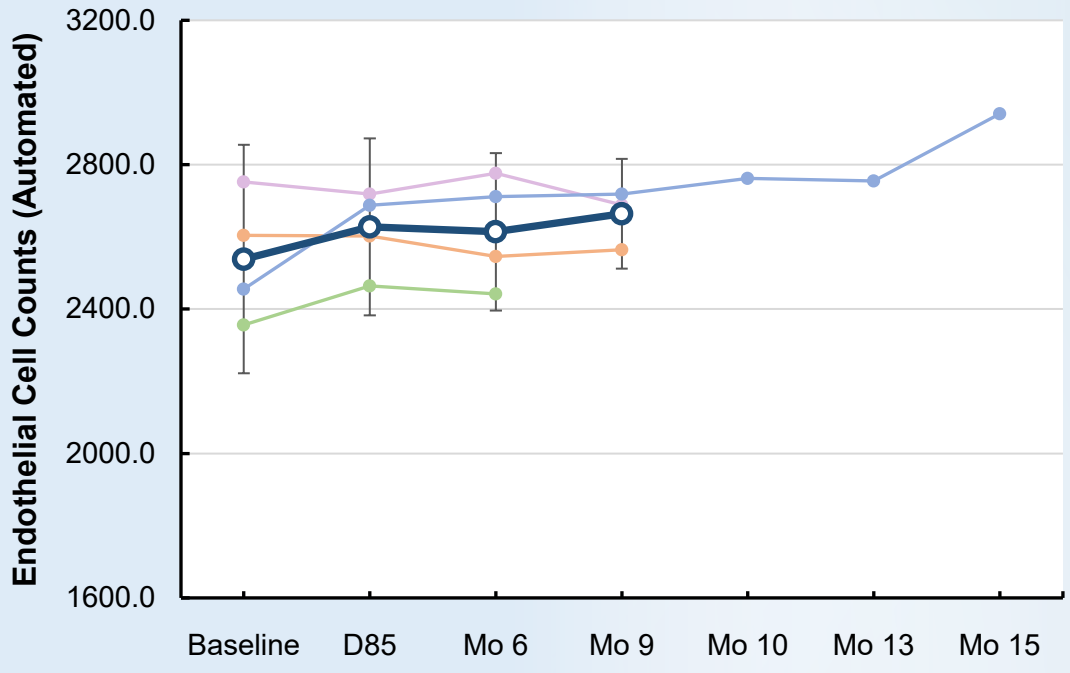
CORNEAL HEALTH

Pachymetry and Endothelial Cell Counts Indicate No Clinically-Meaningful Change from Baseline

Pachymetry



Endothelial Cell Count



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)

Error bars represent standard deviations for all study eyes data.
NOTE: unmonitored data

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CONCLUSIONS

OTX-TIC shows potential as a durable, sustained-release glaucoma therapy

- **Clinically-meaningful decrease in IOP**
  OTX-TIC produced IOP lowering effects comparable to travoprost therapy as early as two days following administration
- **Duration of therapy**
  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
- **Bioresorbable**
  Implant biodegraded in 5-7 months (Cohorts 1 & 2); Fast degrading implants biodegraded in 3-5 months (Cohorts 3 & 4)
- **Implant location and movement**
  Implant was not observed to move at slit lamp and was visible at all exams in all patients using gonioscopy
- **Corneal health**
  Endothelial cell counts, pachymetry assessments, and slit lamp examinations indicate no changes from baseline

NEXT STEPS: Phase 2 Trial in Q1 2022

NOTE: unmonitored data

OTX-TIC PHASE 2 STUDY

DESIGN

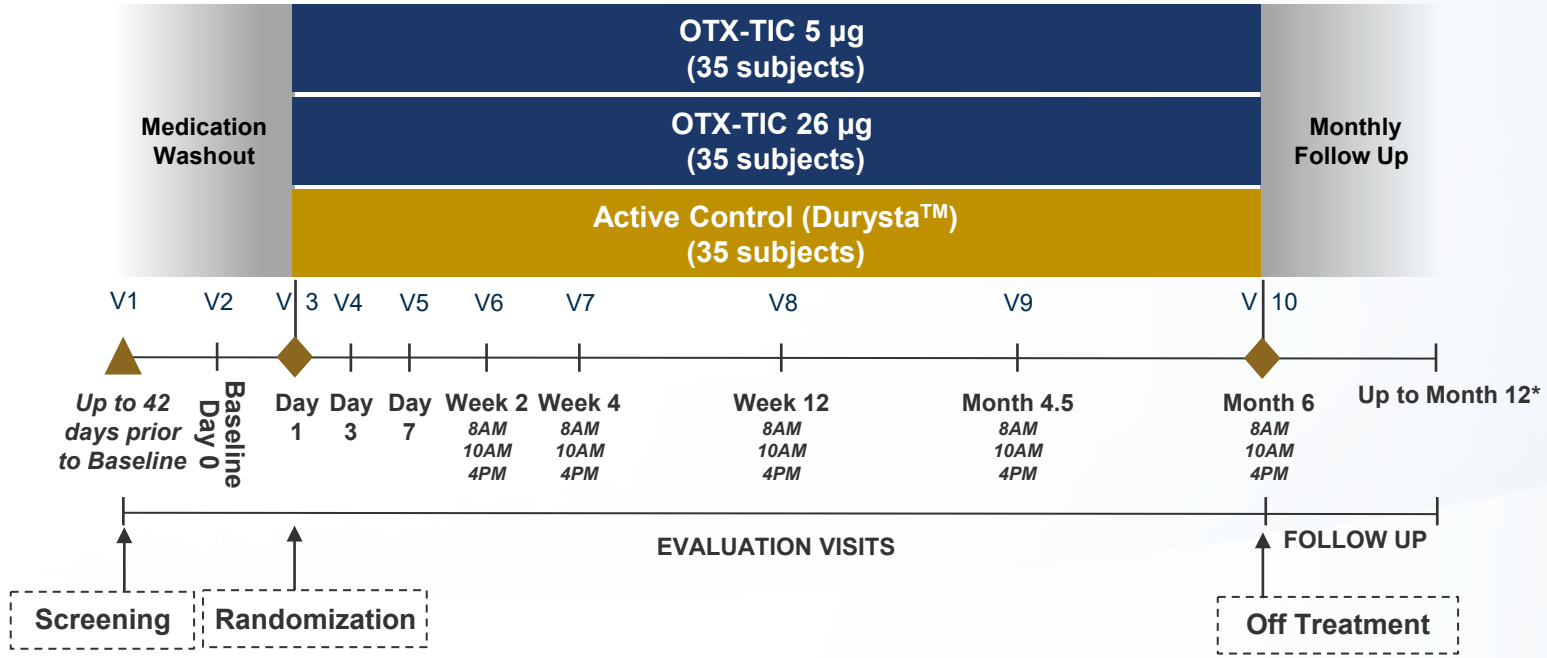
- Prospective, multi-center, randomized, parallel-group, controlled study
- Approximately 105 subjects at 15-20 US sites
- 35 subjects per arm, 3 arms; Randomization 1:1:1
- Key Inclusion criteria:
  - Controlled ocular HTN or POAG
  - Open, normal anterior chamber angles on gonioscopy

OBJECTIVES

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

ACTIVE COMPARATOR

- Control arm eye receives one injection of Durysta™
- Non-study eye receives topical PGA daily



* Monthly visits until IOP is within 10% of baseline for up to 6 months, if needed

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TRANSFORMING DRUG DELIVERY

LEVERAGING A NOVEL TECHNOLOGY PLATFORM

THANK YOU