
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of The Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): November 29, 2016

Inotek Pharmaceuticals Corporation

(Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction
of incorporation)

001-36829
(Commission
File Number)

04-3475813
(I.R.S. Employer
Identification No.)

91 Hartwell Avenue
Lexington, MA
(Address of principal executive offices)

02421
(Zip Code)

Registrant's telephone number, including area code (781) 676-2100

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure

Inotek Pharmaceuticals Corporation (the "Company") is furnishing an investor presentation, attached as Exhibit 99.1 to this Report on Form 8-K, which the Company intends to use from time to time in meetings with investors and others beginning on November 29, 2016. The investor presentation will also be available on the Company's website at <http://ir.inotekpharma.com>.

The information in this Report on Form 8-K and Exhibit 99.1 attached hereto is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Inotek Pharmaceuticals Corporation November 2016 Corporate Presentation.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: November 29, 2016

INOTEK PHARMACEUTICALS CORPORATION

By: /s/ Dale Ritter
Dale Ritter
Vice President —Finance

EXHIBIT INDEX

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November 2016 Corporate Presentation



Forward Looking Statements

This presentation contains forward-looking statements that are based on our management's belief and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.

In some cases, you can identify forward-looking statements by terminology such as "may," "might," "could," "would," "will," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "target," "potential," "continue" or the negative of these terms or other comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect results. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance.

The forward-looking statements in this presentation represent our views as of the date of this presentation. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this presentation.

All trademarks and registered trademarks are the property of their respective owners.

Trabodenoson is an investigational compound and is not yet approved by the FDA for any indication.

Inotek: Transforming Glaucoma Treatment

Trabodenoson: Novel adenosine mimetic that stimulates a natural pathway

Glaucoma: *\$5.6 billion worldwide market with low compliance.¹

1

Phase 1 Monotherapy showed **no dose related side effects** (ocular or systemic) at greater than Phase 3 doses

2

Phase 2 Monotherapy showed **clear dose response**, good ocular and systemic safety, ability to dose QD or BID, additive efficacy to prostaglandins

3

First Phase 3 Monotherapy, MATrX-1, tests QD and BID doses against **placebo**. Results to be announced early Jan. 2017

First fixed-dose combination trial initiated in 2016 | Adenosine A₁ activation is neuroprotective in the retina and brain.²⁻⁴

*Source: IMS Health in 2013

¹Schwartz GF & Quigley HA, Survey of Ophthalmology 2008;53: 557-558

²Gomes et al. 2011, ³Zhong et al. 2013, ⁴Cunha 2005

Leadership with History Together

<p>David P. Southwell, MBA <i>President and CEO</i></p> 	<p>Rudolf Baumgartner, M.D. <i>Chief Medical Officer</i></p> 	<p>Dale Ritter <i>VP, Finance and Chief Accounting Officer</i></p> 	<p>Claudine Prowse, Ph.D. <i>VP, Strategy</i></p> 	<p>Cadmus Rich, M.D., MBA <i>VP, Clinical and Medical Affairs</i></p> 
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\$2 Billion U.S. Glaucoma Market

Unmet Need: Effective QD treatment with minimal side effects

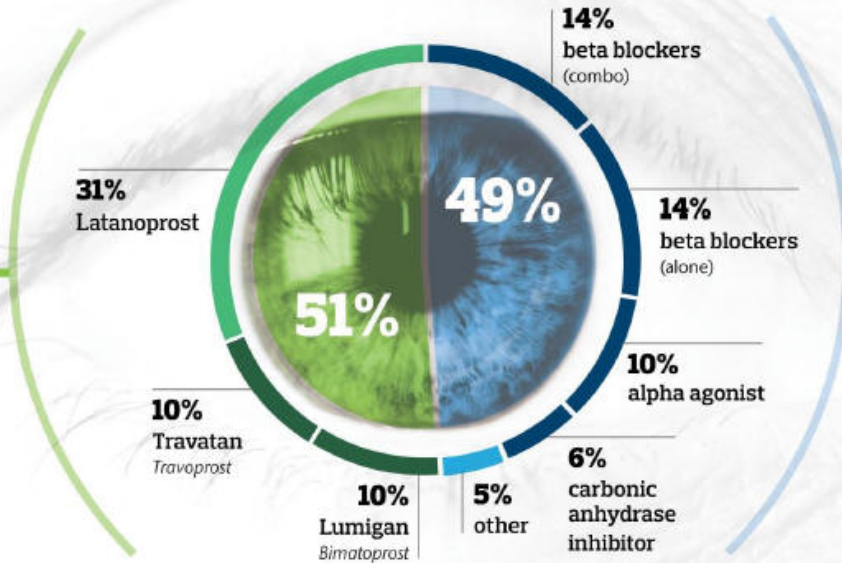
GLAUCOMA PRESCRIPTION MARKET SHARE

First Line: Prostaglandin Analog

Monotherapy
QD Dosing
IOP Drop from Baseline:
6-8 mmHg*

* Per Latanoprost Package Insert

Source: Share data represents total
prescriptions for IMS Health in 2013

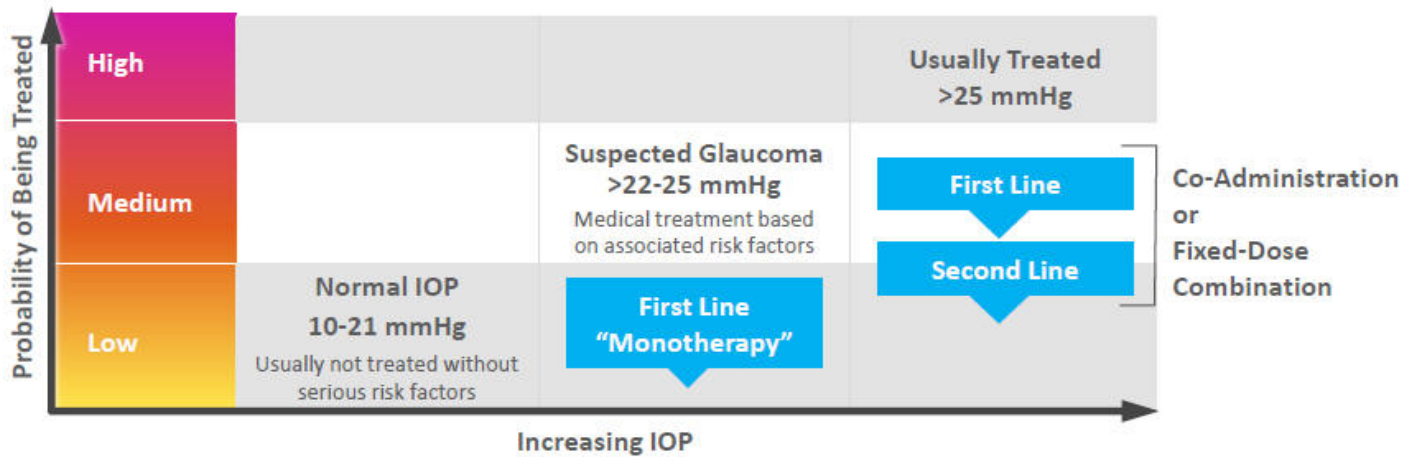


Second Line: Adjunctive Agents

Monotherapy BID
or TID Dosing

IOP Elevation Drives Treatment

Objective: Normalized Intraocular Pressure (IOP)

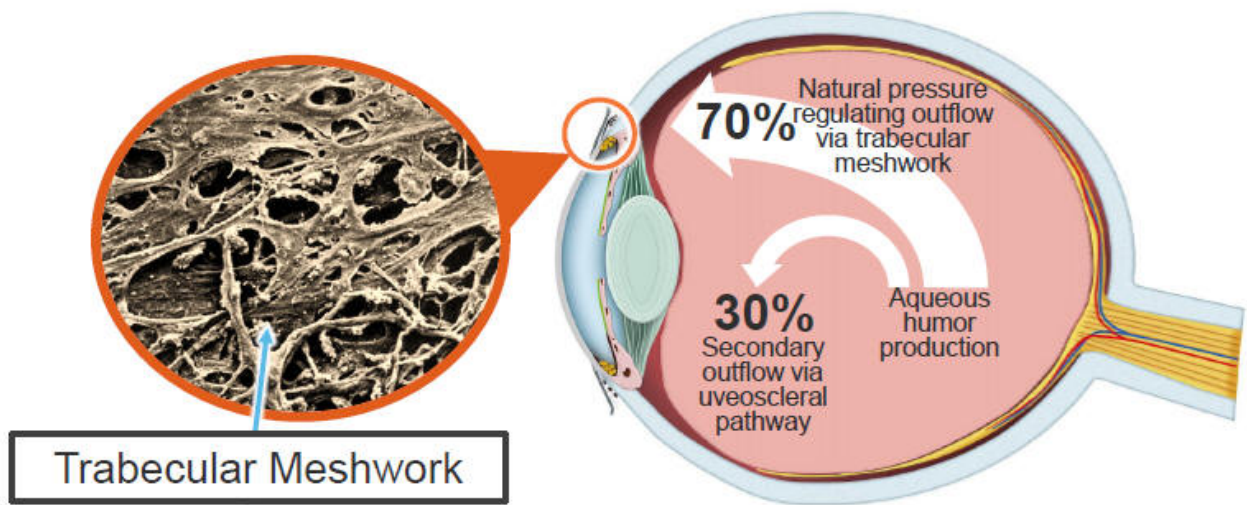


Market Opportunity as First or Second Line

First Line: IOP Lowering; Safety/Tolerability = Compliance

Second Line: Additive efficacy to latanoprost; Minimal added side effects, QD dosing

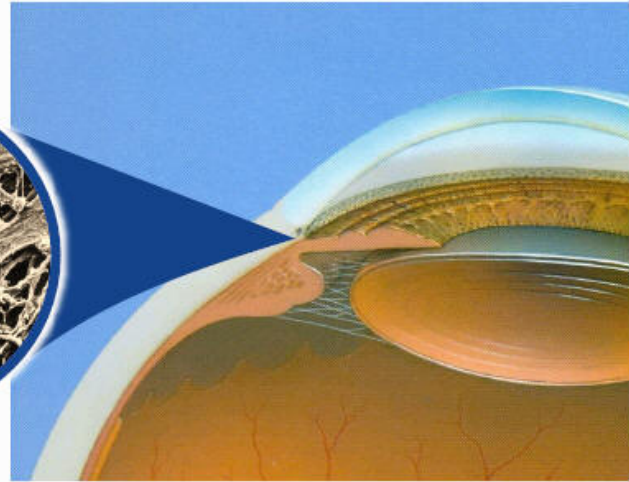
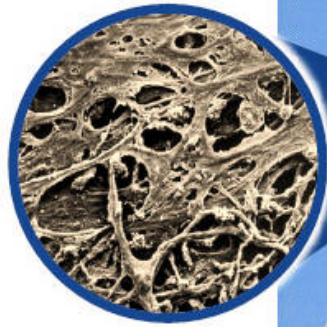
Trabecular Meshwork: The Natural Mechanism for Regulating IOP



Trabodenoson's Novel Mechanism*

Mechanism:

- Binds to A₁ receptors on Trabecular Meshwork
- Upregulates MMP-2, digesting extracellular matrix proteins that clog the TM
- Research supporting trabodenoson's MOA presented at the 2016 American Glaucoma Society

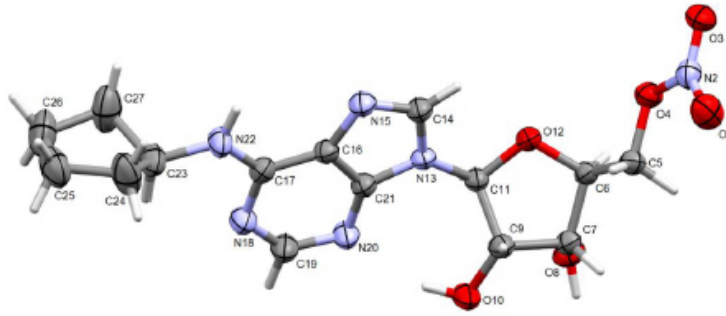


*Increased secretion of MMPs contributes to trabodenoson-induced changes in conventional outflow facility; DS Albers, CE Crosson, JS Myers, CC Rich, R Baumgartner, and WK McVicar; American Glaucoma Society Annual Meeting, March 2016, Poster #: PO047

From Adenosine to Trabodenoson

Trabodenoson Rational Design

Trabodenoson is an adenosine mimetic optimized to selectively target the A₁ receptor



Developed by medicinal chemists at Inotek

From Adenosine to Trabodenoson

Trabodenoson Rational Design

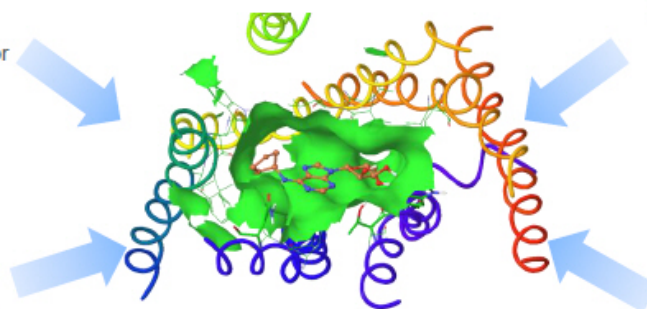
Trabodenoson is an adenosine mimetic optimized to selectively target the A₁ receptor

Potency
High affinity for A₁ receptor

Corneal Penetration
Lipid solubility = ocular penetration

Selectivity
Non-target receptor interactions systematically removed

Eye Tissue Compatibility
High compatibility with sensitive tissues in front of eye

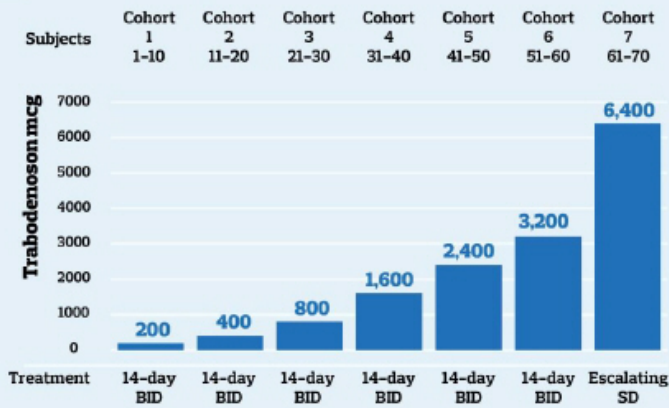


Trabodenoson bound to A₁ receptor

Compound	A ₁ (K _i , nM)	A _{2a} (K _i , nM)	A ₃ (K _i , nM)
Trabodenoson	0.97	4,690	704

Phase 1: Good Safety Profile and Tolerable

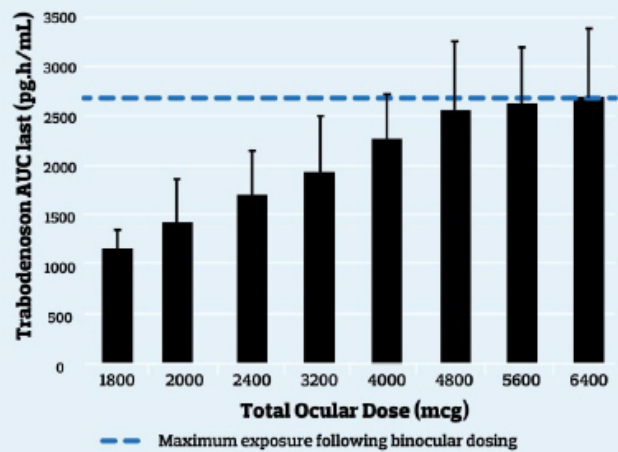
Design:



BID: Twice Daily | SD: Single Dose

Results:

No Dose Limiting Toxicity; no dose-related ocular or systemic side effects; limited systemic exposure at high doses



Laties A, et al. J Ocul Pharmacol Therap 2016;00:108. doi:10.1089/jop.2015.0147.

No Clinically Significant Safety Signals in Trials to Date

Phase 1 Comprehensive Safety Assessments included:

- Continuous cardiac monitor
- 12-lead ECG
- Orthostatic BP and heart rate
- Vital signs
- Blood cardiac troponin I
- Spirometry – FEV₁
- Blood pharmacokinetic sampling
- Urine pharmacokinetic sampling
- Renal biomarkers
- Karolinska sleepiness scale

- Adverse events
- Physical examinations
- Clinical laboratory assessments
- Toxicology screen
- Ophthalmology assessments
 - Slit lamp exam/hyperemia
 - Fundus exam
 - Best-corrected visual acuity
 - Intraocular pressure

Phase 2: IOP Statistically Lowered at All Timepoints on Day 28

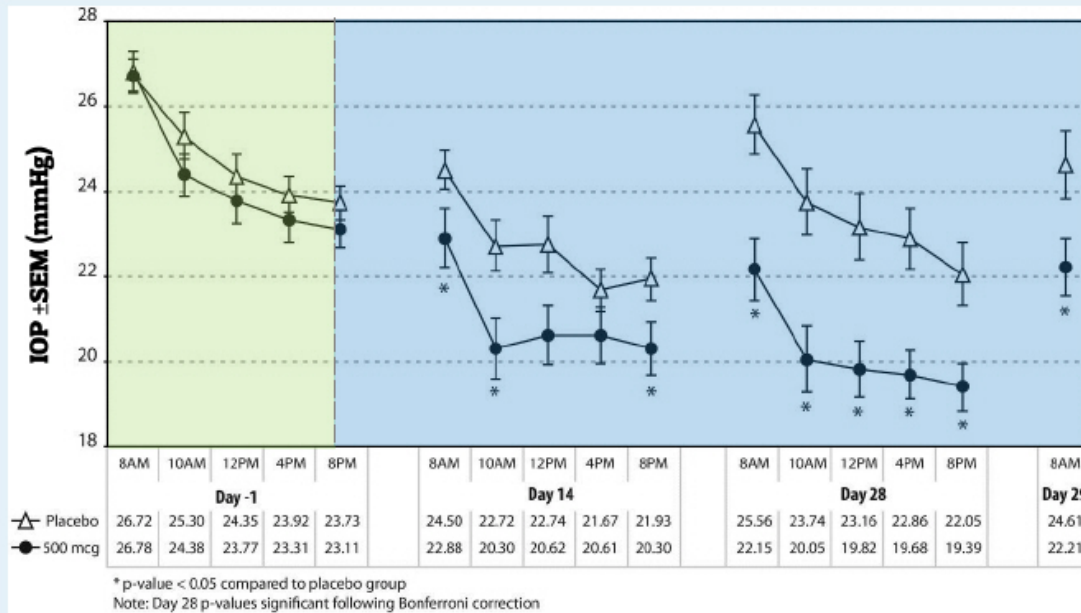
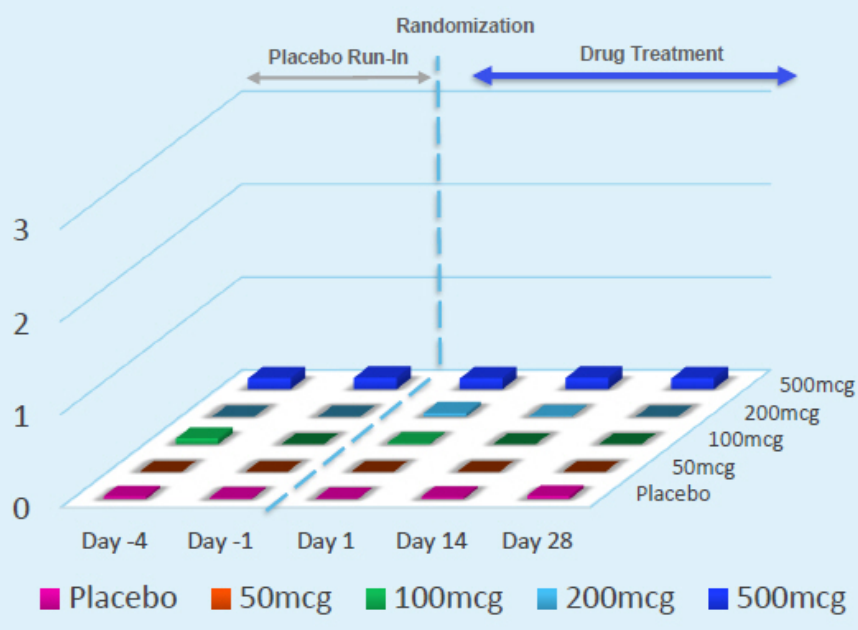


FIG. 2. Mean IOP for the trabodenoson 500 mcg and placebo groups pre-randomization (Day -1) and after post-randomization (Days 14, 28, and 29).

Phase 2 Dose Ranging Trial: Hyperemia Score Graded (0-3)



Hyperemia scores were low and unchanged by all doses of trabodenoson

0 = none/trace
1 = mild
2 = moderate
3 = severe

MATrX-1 Phase 3 Trial Design

Identical population to Phase 2

- IOP ≥ 24 mmHg
- ~ 300 patients treated for 12 weeks

Three trabodenoson doses

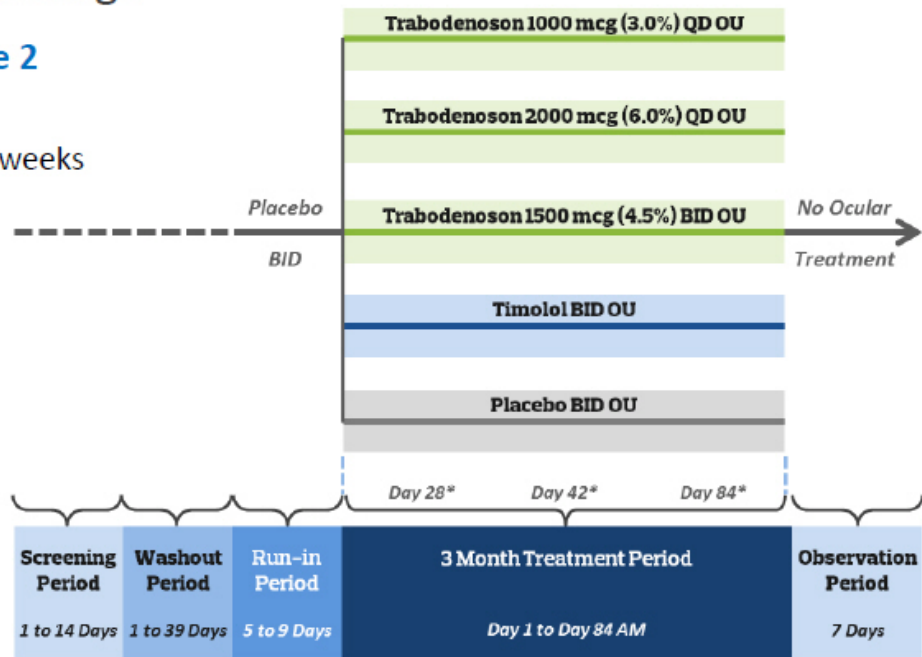
- 1000 mcg QD
- 2000 mcg QD
- 1500 mcg BID

Placebo controlled

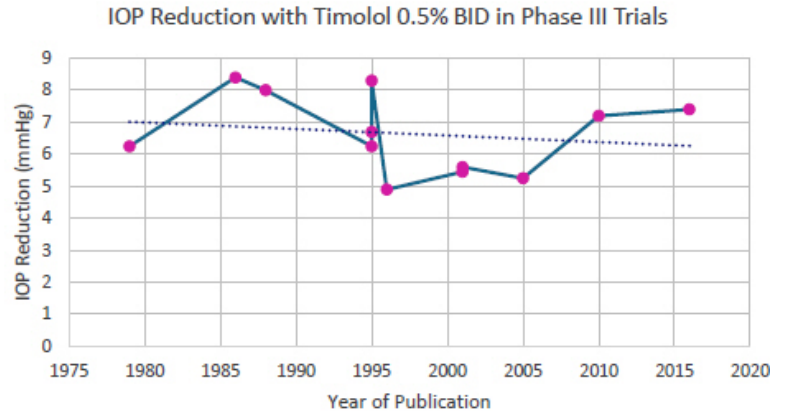
- Statistical comparator

Timolol 0.5% BID

- Internal control
- Not part of statistical comparison



Study	Year Published	IOP Reduction (mmHg)
Timolol Phase III ¹³	1979	4.9-7.6
Timolol versus Betaxolol ¹⁴	1986	8.4
Timolol versus Epinephrine ¹⁵	1988	7.1-8.9
Timolol versus Dorzolamide ¹⁶	1995	5.4-7.1
Timolol versus Latanoprost ¹⁷	1995	6.7
Timolol versus Latanoprost ¹⁸	1995	8.3
Timolol versus Travoprost ¹⁹	2001	3.8-7.1
Timolol versus Bimatoprost ²⁰	2001	5.6
Timolol versus Combigan ²¹	2005	4.3-6.2
Timolol versus Xalacom ²²	2010	7.2
Timolol versus Latanoprostene Bunod ²³	2016	6.6-8.0
Timolol versus Latanoprostene Bunod ²⁴	2016	6.6-7.9



13. Zimmerman et al. Arch Ophthalmol 1979; 14. Stewart et al. Arch Ophthalmol 1986; 15. Alexander et al. Ophthalmology 1988; 16. Strahlman et al. Arch Ophthalmol 1995; 17. Alm et al. Ophthalmology 1995; 18. Watson et al. Ophthalmology 1996; 19. Netland et al. Am J Ophthalmol 2001; 20. Sherwood et al. Survey of ophthalmology 2001; 21. Craven et al. J Ocul Pharmacol Ther 2005; 22. Higginbotham et al. Arch Ophthalmol 2010; 23. Weinreb et al. Ophthalmology 2016; 24. Medeiros et al. Am J Ophthalmol 2016.

Timolol

- Clinical efficacy in practice is lower than in clinical trials²
 - Trinity Survey of 100 Ophthalmologists – Median IOP lowering of 4.5 mmHg (range 3.0 to 6.0 mmHg)
- IMS Data shows monotherapy use is low and continues to decline.³
- Real safety risks with timolol⁴
 - Serious events, including death, have been reported even in patients with co-morbidities.
- While somewhat variable, timolol has generally demonstrated IOP drift over time (tachyphylaxis)⁷⁻¹²
- 2 year data of people requiring second agent (LASER trial)
- Timolol dosing disadvantages: BID, loss of efficacy at night

1. Summary Health Statistics: NHIS:2014. 2. Trinity Health Survey:2016; 3. IMS Data; 4. Timoptic XE label; 5. Bachelor et al. *Ophthalmology*, 1979; 6. Schuman et al. *Ophthalmology*, 2000; 7. Krieglstein et al. *Klin Monatsbl Augenheilkd*, 1979; 8. Steinert et al. *Arch Ophthalmol*, 1981; 9. Nielsen et al. *Acta ophthalmologica*, 1982; 10. Bengtsson et al. *Invest Ophthalmol Vis Sci*, 2001; 11. Gandolfi et al. *Invest Ophthalmol Vis Sci*, 1990; 12. Gandolfi et al. *Invest Ophthalmol Vis Sci*, 1996.

Additional Phase 3 Trials

MATrX-2

- Similar design as MATrX-1
- Optimized dose to be selected from MATrX-1
- Large sample size

Long-Term Safety Trial

- Primary endpoint = safety
- Greater IOP range
- At least 300 patients treated for at least 6 months, and 100 patients for at least 12 months

Phase 3 Program Optimized for Success:

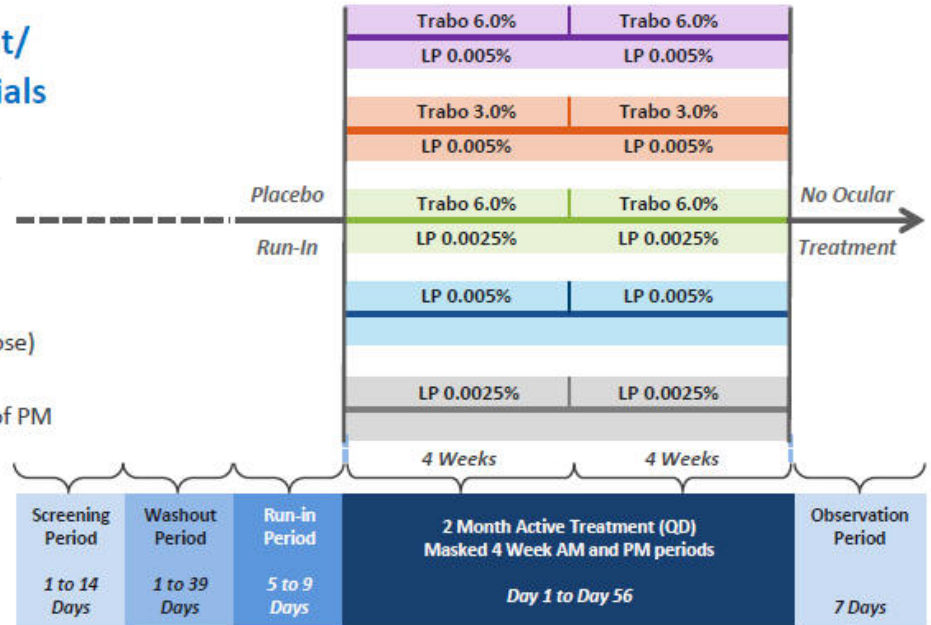
- Similar patient population to Phase 2
- Primary endpoint versus placebo
- Higher doses than in Phase 2
 - Below the maximum dose tested in Phase 1

Phase 2 Fixed-dose Combination Trial of Trabodenoson and Latanoprost

GOAL: Identify optimal benefit/ risk profile for confirmatory trials

- N ~165 subjects
- Diagnosis of ocular hypertension (OHT) or Primary Open-Angle Glaucoma (POAG)
- Baseline IOP ≥ 25 and ≤ 34 mmHg
- Trabodenoson doses: 3% and 6%
- Latanoprost doses: 0.005% (commercial dose) and 0.0025%
- Subjects assigned 4 wks of AM and 4 wks of PM dosing in a masked manner

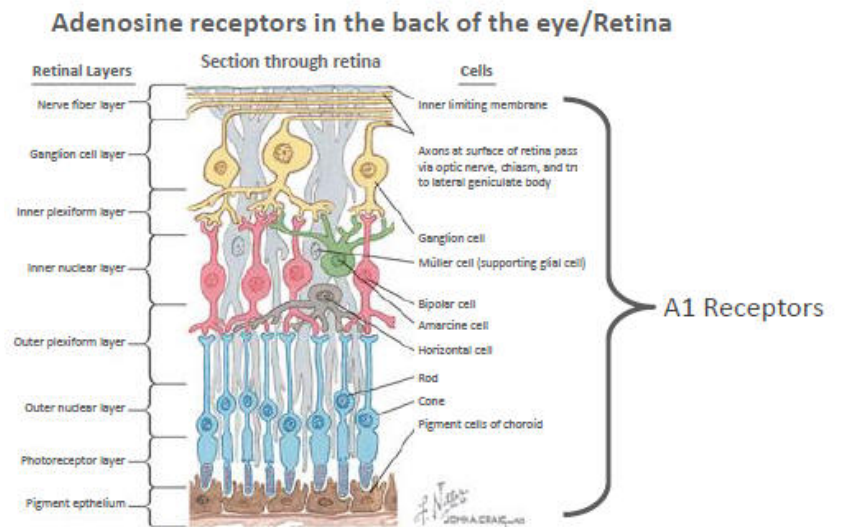
Data Readout: 2H 2017



Back of Eye: Potential for Orphan Indications

Optic Neuropathies and Degenerative Retinal Diseases

- Trabodendoson shows potential in treating the **back of the eye**:
- Preclinical data support effect:
 - High Pressure Optic Neuropathy Model
 - Eye drops shown to deliver drug to retina in rabbits and monkeys
- Orphan indications being evaluated:
 - Retinitis Pigmentosa
 - Non-Arteritic Ischemic Optic Neuropathy (NAION)



Inotek Value Drivers





Thank you

