March 30, 2015

HEALTHCARE/BIOTECHNOLOGY

Stock Rating:

OUTPERFORM

12-18 mo. Price Target	$49.00
OCUL - NASDAQ	$42.32

3-5 Yr. EPS Gr. Rate	NA
52-Wk Range	$44.19-$11.90
Shares Outstanding	24.5M
Float	6.7M
Market Capitalization	$906.3M
Avg. Daily Trading Volume	159,851
Dividend/Div Yield	NA/NM
Book Value	$2.40
Fiscal Year Ends	Dec
2016 ROE	NA
LT Debt	$13.5M
Preferred	NA
Common Equity	$59M
Convertible Available	No

Trading range since July 2014 IPO.

EPS Diluted	Q1	Q2	Q3	Q4	Year	Mult.
2013A	--	--	--	--	(5.11)	NM
2014A	(2.45)	(2.10)	(0.48)	(0.37)	(2.69)	NM
2015E	--	--	--	--	(1.40)	NM

Revenue ($/mil)	Q1	Q2	Q3	Q4	Year	Mult.
2013A	--	--	--	--	0.0	NM
2014A	0.0	0.1	0.1	0.5	0.8	NM
2015E	--	--	--	--	1.8	NM

Ocular Therapeutix

Why We Disagree with the Glaucoma Bear Thesis

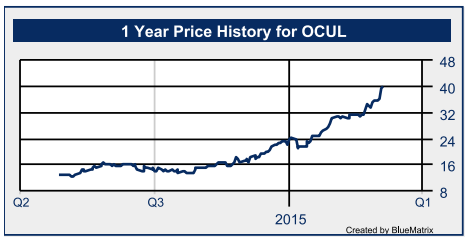
SUMMARY

Below/inside we counter the bear thesis on Ocular's sustained-release glaucoma plug, which argues: **1)** OTX-TPb plug efficacy waned over time in Ph.2a, a worry. **2)** OTX-TPa efficacy looks worse than Timolol, **3)** OTX-TPa efficacy looks worse than travoprost topicals. We *disagree*. On **1)**, the ongoing Ph.2b uses OTX-TPa with a higher, optimized 3.5 µg/day. On **2)**, we confirmed OTX-TPa efficacy is *non-inferior* to Timolol (paired t-test, p=0.16) where 5/6 timepoints have overlapping error-bars. On **3)**, differences in Timolol's behavior for Ocular's Ph.2a vs. the Timolol/travoprost head-to-head approval trial (see below) imply different patient characteristics, discrediting cross-trial comparisons. Finally, bears appear to ignore the significant compliance benefits plugs should deliver over topicals (Ex.3).

KEY POINTS

- **Bears should focus on OTX-TPa efficacy, not OTX-TPb.** Among 5/6 Ph.2a timepoints (Ex.1), OTX-TPa/Timolol IOP error-bars overlapped (paired t-test, p=0.16). Ocular is appropriately advancing OTX-TPa (3.5 µg/day) not OTX-TPb (2.8 µg/day) in Ph.2b. Finding the right dose/delivery rate is a natural goal for Ph.2 development, and OTX-TPa is the obvious choice.
- **Bears rely on questionable cross-trial arguments.** They cite topical travoprost's ~8mmHg drop in the approval trial vs. Timolol (vs. OTX-TPa's ~6mmHg). But **1)** Timolol generated ~1.2mmHg larger IOP drops than in Ocular's Ph.2a, and **2)** long-term travoprost/Timolol efficacy was *in line* (Ex.2), implying differing trial characteristics, not any underlying efficacy gap, are driving bear observations.
- **Bears discount OTX-TP's compliance benefits.** Our literature checks indicate **1)** long-term topical adherence (% time with refill) below ~60% and **2)** poor compliance driving another ~50-55% erosion in drug exposure. Even assuming OTX-TP adherence follows topicals, removing the compliance overhang given OTX-TP's retention profile (Ex.5) implies a ~30% net adherence/compliance benefit over topicals (Ex.3).
- **Update: Retention rates looking good.** Ocular recently reported 2-month retention of ~90% (vs. 85% prior) in non-significant-risk studies (N=20-40) and we predict 3-month retention of ~70% (vs. 54% prior, Ex.5). With add'l iterations, the most recent 3-month retention rate hit 92%. Larger plug diameters (even vs. OTX-TPa) in the Ph.2b could further drive retention.

Stock Price Performance



Company Description

Ocular Therapeutix, Inc. is a biopharmaceutical company focused on the development and commercialization of therapies for diseases and conditions of the eye using its hydrogel platform technology.

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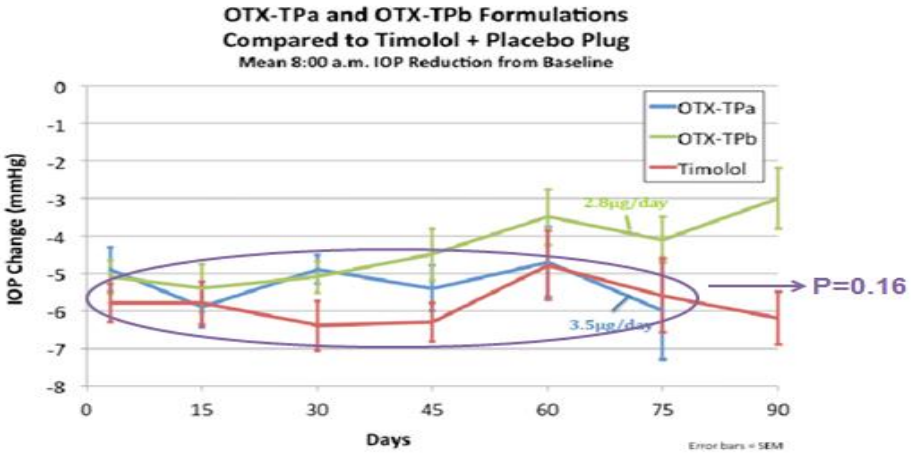
OTX-TPa non-inferior to Timolol in IOP reduction.

A two-sided paired t-test (our calculation) comparing 6 paired data points for OTX-TPa and Timolol (~3, 15, 30 45, 60 and 75 days), yields a p-value of 0.16. **See Ex. 1.**

The non-significant p-value suggests that OTX-TP is non-inferior to Timolol (i.e., null hypothesis is true).

Exhibit 1

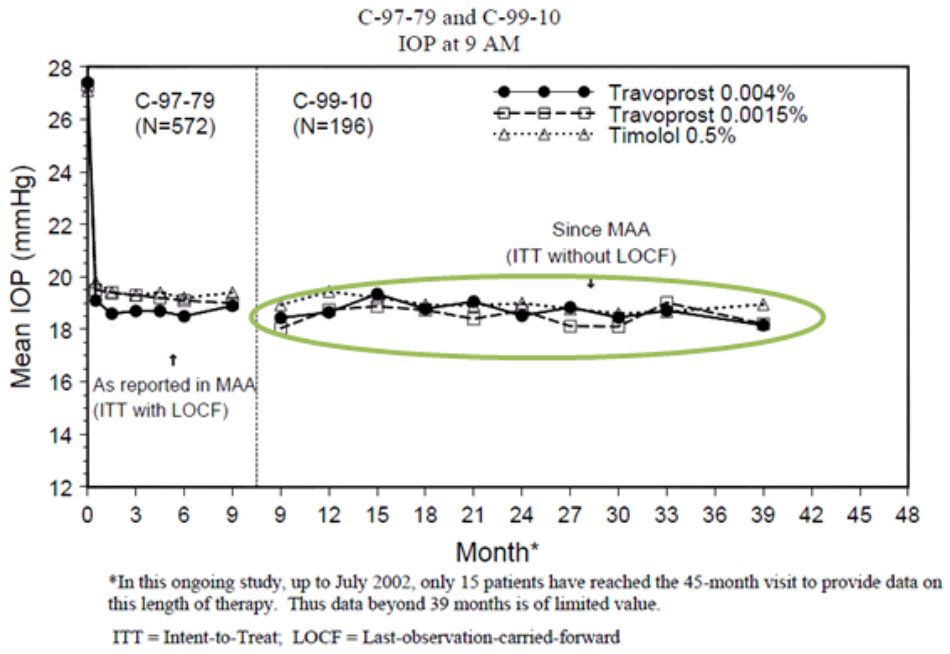
OTX-TPa Efficacy in Reducing IOP Non-inferior to Timolol



Source: Company presentation. Oppenheimer Research

Exhibit 2

Travoprost Efficacy <u>in-line</u> with Timolol in Long-term Studies (≥9 months)



Source: Scientific discussion section of EMA review for Travoprost.

OTX-TP appears to provide ~30% more dosing compliance vs. eyedrops. Below are the steps we followed to construct our graphical analysis in Exhibit 3.

1. We conservatively assume the adherence (% of time with refill) pattern of OTX-TP patients should follow literature data (~60-70%) for eyedrop scrips.

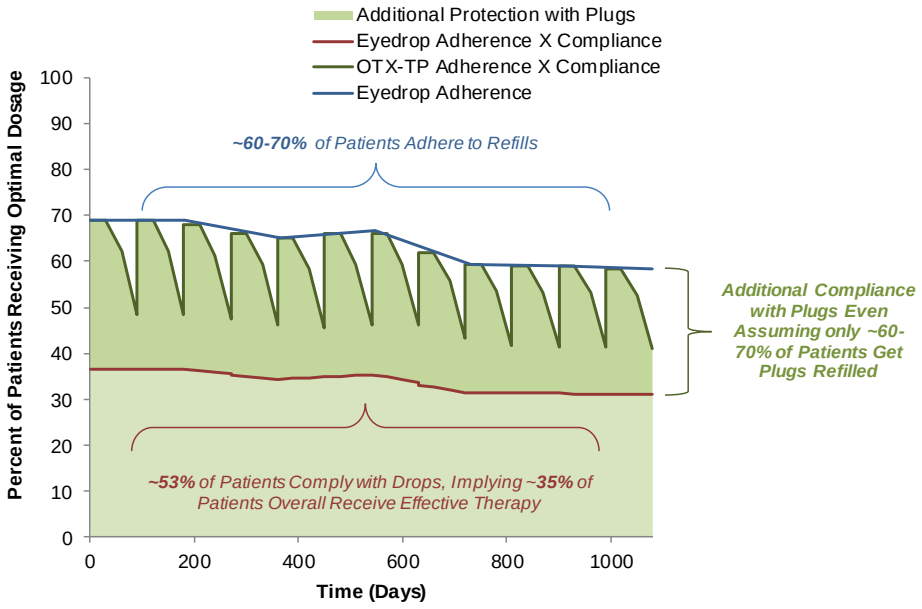
2. We obtain the OTX-TP "adherence X compliance" curve (jagged green in Ex. 3 below) by multiplying the 3-month retention rate profile (latest generation plug design, see Ex. 5, purple line) with literature-derived eyedrop adherence (blue curve in Ex. 3 below).

3. We obtain the eyedrop "adherence X compliance" curve (red in Ex. 3 below) by multiplying eyedrop adherence (60-70%) with eyedrop dosing compliance of ~53% based on literature work (see Ex. 4).

4. **CONCLUSION: Comparing the jagged green curve (OTX-TP) vs. the red curve (topicals), we conclude OTX-TP provides ~30% higher dosing compliance vs. topical eyedrops.**

Exhibit 3

Graphical Analysis Shows OTX-TP Provides Substantially Higher Compliance Benefits vs. Topicals



Sources: Nordstrom BL et al., Persistence and Adherence with Topical Glaucoma Therapy, Am. J. Ophthalmol., Vol. 140(4), 2005, p598-606. Oppenheimer Research.

Exhibit 4

Literature Checks Suggest Eyedrop Dosing Compliance is ~50-55% Among Glaucoma Patients

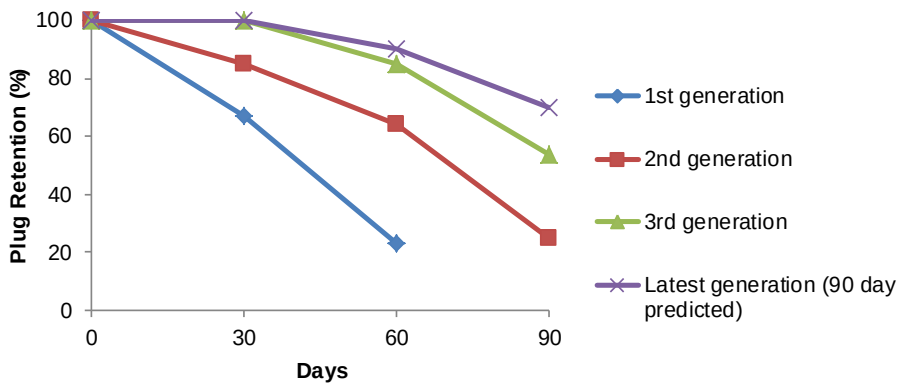
N	Study length (months)	Methodology	Selected main findings	Journal (year)	Title
86	12	Questionnaire & script data	**51%** of patients had insufficient drops dispensed based on prescription. 24% of patients admitted to omitting eye drops occasionally or frequently.	Eye (1998)	Compliance with timolol treatment in glaucoma
66	3	Observation	Patients used a mean of **54±17%** of scheduled doses	Ophthalmology (2009)	Interventions improve poor adherence with once daily glaucoma medications in electronically monitored patients
196	3	Dosing aid devices	**56%** of patients took greater than 75% of the expected doses. The overall mean adherence rate was 0.71.	Ophthalmology (2009)	Adherence with topical glaucoma medication monitored electronically the Travatan Dosing Aid study
Average dosing compliance estimated from literatures			**~53%**		

Source: Oppenheimer Research.

OTX-TP 3-month retention rate prediction. Ocular reported a 90% 2-month retention rate for the latest generation plugs (vs. 85% prior). In prior designs (green curve) the retention rate dropped ~15% from month 1 to 2 and another ~30% from month 2 to 3, meaning the rate of loss doubled in month 3 vs. month 2. Based on this trend, we project the retention rate for the latest generation plug should drop 2x10% or another ~20% in the third month to ~70% (90%-20%).

Exhibit 5

Oppenheimer Prediction of ~70% 3-Month Retention Rate (Purple) for Latest OTX-TP Plug Design



Sources: Ocular Therapeutix, Oppenheimer Research.

Investment Thesis

Ocular is an appealing platform play in the ophthalmology space, in our view, driven by several technological advances that permit steady delivery of drugs to the eye using punctal plugs. The company's pipeline is substantially de-risked as Ocular's plugs deliver medications already approved for glaucoma (travoprost) and post-surgical inflammation (dexamethasone). Both the inflammation (OTX-DP) and glaucoma (OTX-TP) plugs have achieved clinical proof-of-concept, and we expect FDA approvals in 2016/2018, respectively. Longer term, we see the interplay between compliance advantages of plugs vs. generic/soon-to-be generic eye-drop markets as a key debate for the stock. However, at current levels even a conservative view of peak share suggests significant upside.

Price Target Calculation

We value Ocular Therapeutix using a discounted cash flow (DCF) analysis with a weighted average cost of capital (WACC) of 10% and a 0% terminal growth rate post-2030, generating a terminal value of $437M. Our DCF valuation indicates an equity value of ~$1,196M, or $49 per diluted share.

Key Risks to Price Target

Key risks include the following: **1)** Future retention rates and/or the degree of IOP reductions in Phase 2b and/or Phase 3 for OTX-TP in glaucoma may prove insufficient for widespread treatment adoption. **2)** The Phase 3 post-surgical inflammation and pain trial may fail to meet clinical endpoints. **3)** Ocular may not be successful in commercializing OTX-TP and OTX-DP and/or share capture may be weaker than our current projections. **4)** Ocular will likely need additional dilutive capital to develop its products, and we assume additional financings of $150M over 2016-18.

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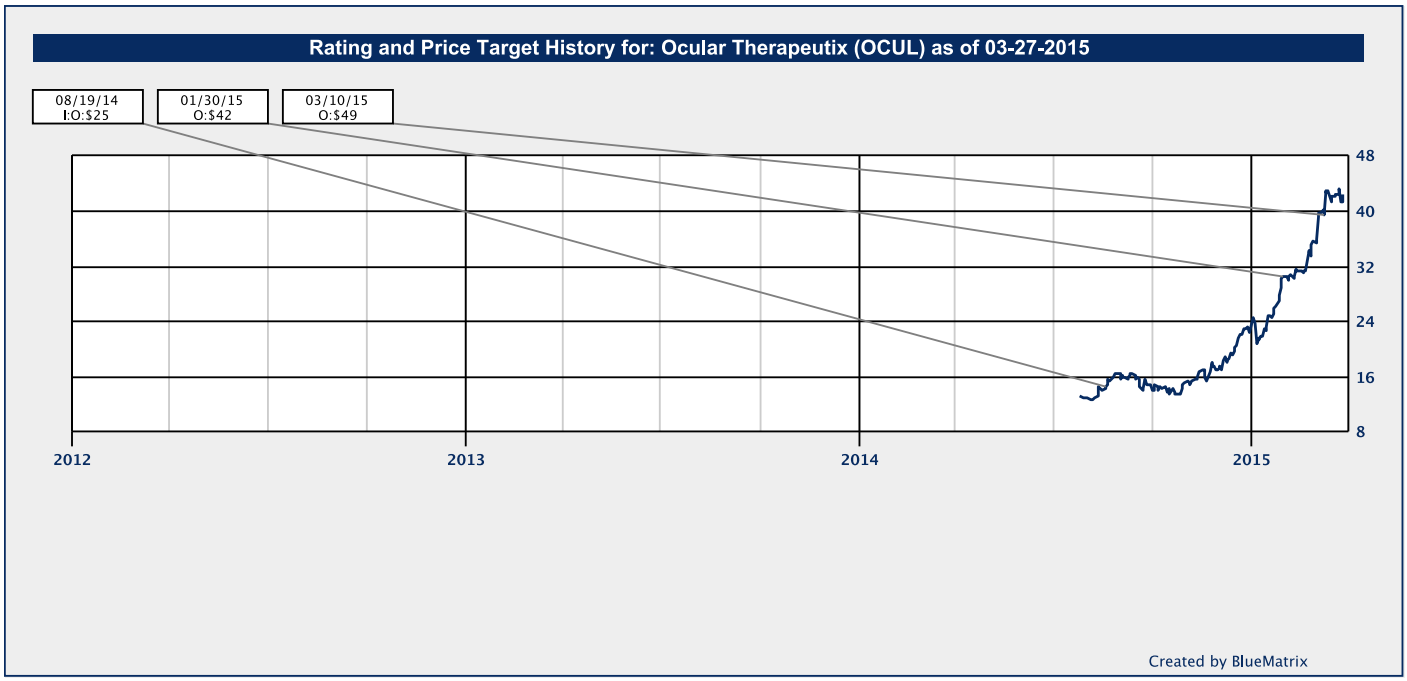

All price targets displayed in the chart above are for a 12- to- 18-month period. Prior to March 30, 2004, Oppenheimer & Co. Inc. used 6-, 12-, 12- to 18-, and 12- to 24-month price targets and ranges. For more information about target price histories, please write to Oppenheimer & Co. Inc., 85 Broad Street, New York, NY 10004, Attention: Equity Research Department, Business Manager.

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Distribution of Ratings/IB Services Firmwide

			IB Serv/Past 12 Mos.	
Rating	Count	Percent	Count	Percent
OUTPERFORM [O]	327	55.71	147	44.95
PERFORM [P]	250	42.59	93	37.20
UNDERPERFORM [U]	10	1.70	2	20.00

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