



# Annual General Meeting

Corporate Presentation, November 28, 2016  
Megan Baldwin PhD, CEO & Managing Director

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# Financial Position (Unaudited)

Key Financial Details	ASX: OPT
Ticker Symbol	ASX:OPT
Share Price (as at Nov 25 2016)	~A\$0.72
Total Ordinary Shares on Issue	150,237,078
Options on Issue	49,675,922
Market Capitalisation (as at Nov 25 2016)	~A\$108m (~USD80m)
Trading Range (last 12 months)	A\$0.28 – 0.915
Cash Balance (at 30 June 2016)	~A\$14.5m
Listed Investments	~A\$0.3m
Top 10 Shareholders Own	69%

Substantial Shareholders	% Holding
Biotechnology Value Fund (BVF)	18%
Baker Bros (NY, USA)	9%
Packer & Co.	8.5%

## Share Price Performance (Nov '14 – Nov '16)



# Corporate Achievements

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- ✓ First year trading under Opthea Limited and ASX:OPT
- ✓ Continued execution of strategy to focus on ophthalmology
- ✓ Received A\$2.6m R&D tax rebate on local & international R&D expenditure
- ✓ AusIndustry approval for Advance/Overseas Finding
  - ✓ Projected R&D activities in both Australia and overseas eligible for the R&D Tax Incentive to June 30 2018
- ✓ Completed simplification of Group
  - ✓ De-registration of subsidiaries
  - ✓ Completed solvent members' voluntary liquidation of Syngene Ltd
  - ✓ Pro-rata allocation of remaining capital to Syngene shareholders
  - ✓ Returned >A\$170k to Opthea Limited

# Operational Achievements

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- ✓ Met primary safety objective in Phase 1 wAMD trial
  - ✓ Demonstrated safety and tolerability of OPT-302 as monotherapy and in combination with Lucentis®
- ✓ Reported changes in visual acuity (VA) and retinal thickness following the 3 month dosing period demonstrating clinical activity of OPT-302 in both treatment naïve patients and prior treated patients
- ✓ Completed recruitment in Phase 2A cohorts
- ✓ On-track to report primary analysis of the Phase 2A trial in 1Q'17
- ✓ Expanded clinical management team
- ✓ Completed 6 month GLP safety/toxicology studies to support Ph 2B trial
- ✓ Initiated US FDA & EU regulatory agency interactions to inform Ph 2B wAMD trial
- ✓ Continued to raise company profile in local and international investment and clinical ophthalmology communities
- ✓ Data presented at international conferences and Ophthalmology Innovation Summit (OIS/ASRS, OIS/AAO, EURetina)

# Milestones

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## OPT-302 Wet AMD Program: Milestones



Initiated Phase 1b/2a clinical trial:  
30 June 2015



Ph 1b Primary Safety Data Analysis:  
April 16



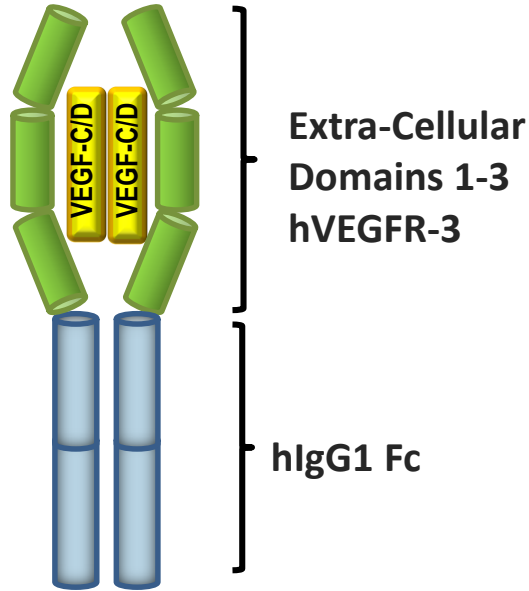
Ph 1b Data Analysis (2<sup>o</sup> Objectives):  
July 16

Ph 2a Primary Data Analysis:  
1Q17

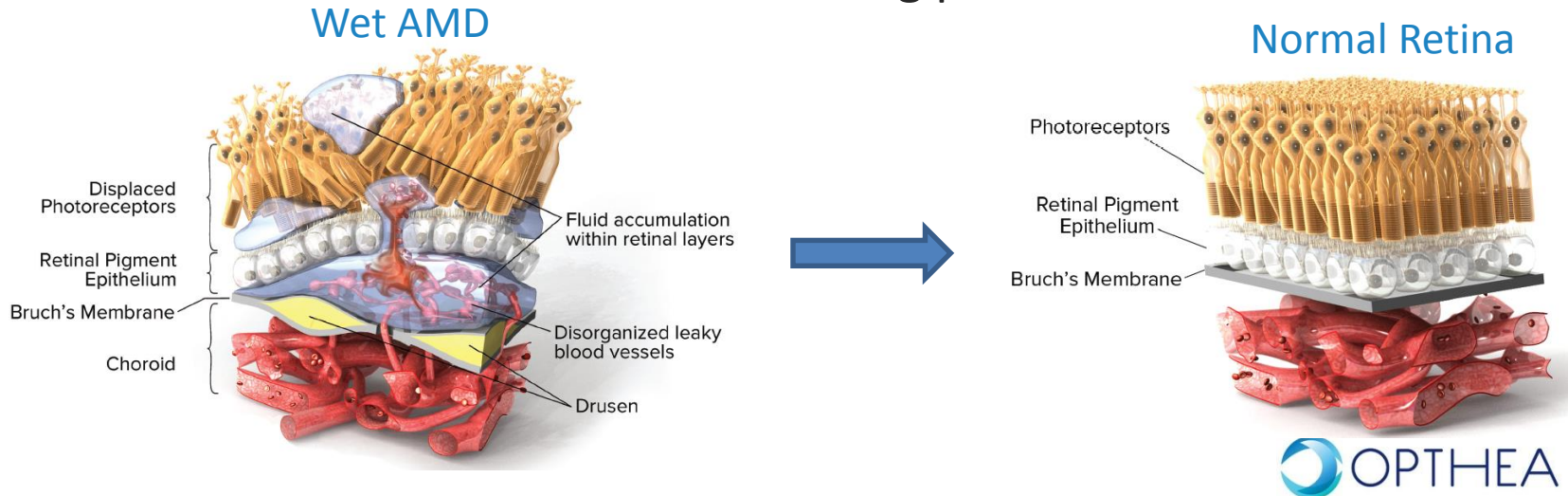
Initiate Phase 2b clinical trial:  
2017

# OPT-302: Program Update

# OPT-302 for Wet AMD



- The VEGF family is recognised as the most important family of growth factors controlling vessel growth and leakage
- OPT-302 blocks VEGF-C and VEGF-D
- Blocks vessel growth and leakage, two of the key hallmarks of wet AMD
- Leading cause of blindness in over 55's, increasing prevalence





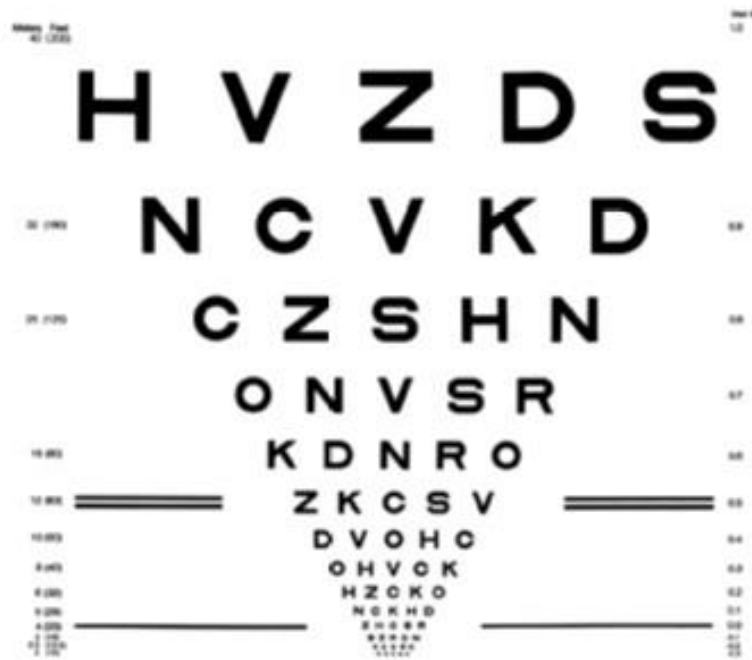
# Our Goal: To Improve Vision

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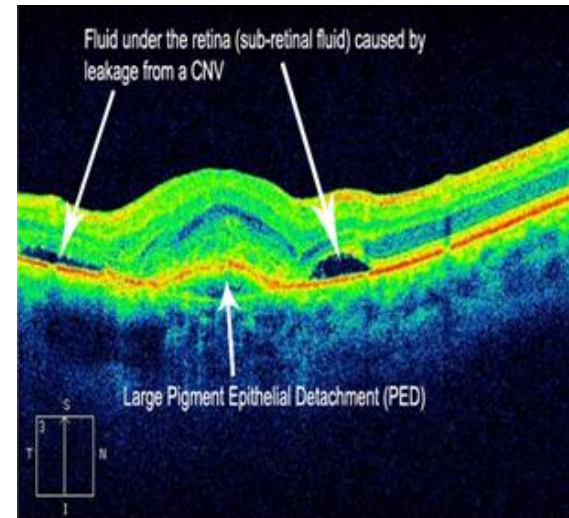
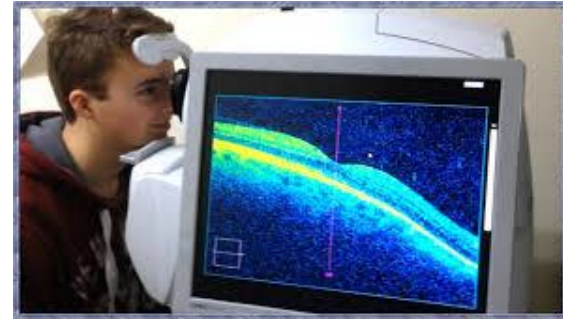
# Monitoring Patients & Endpoints in Wet AMD Trials

## Visual Acuity



Change in Vision (# letters)  
from baseline

## SD-OCT



Change in Retinal Thickness  
(CST) from baseline –  
Indicator of fluid

# Approved therapies target VEGF-A, not VEGF-C or VEGF-D

Our approach is novel and differentiated from existing therapies, yet targets a validated pathway in wet AMD disease progression

Anti-VEGF-A



Anti-VEGF-A



Anti-VEGF-A




2015: >\$7BN  
40% Market Share

60% Market Share  
(Off-label use)



# Large and Growing Market Opportunity

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Worldwide market opportunity for wet AMD therapies estimated to be USD10 Billion per annum.

# An Unmet Medical Need for Wet AMD

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*Despite receiving a VEGF-A inhibitor (Lucentis<sup>®</sup>, Eylea<sup>®</sup> or Avastin<sup>®</sup>):*

>50%


do not achieve significant vision gain

2/3

will continue to have fluid at the back of the eye

25%

will have further vision loss at 12 mos

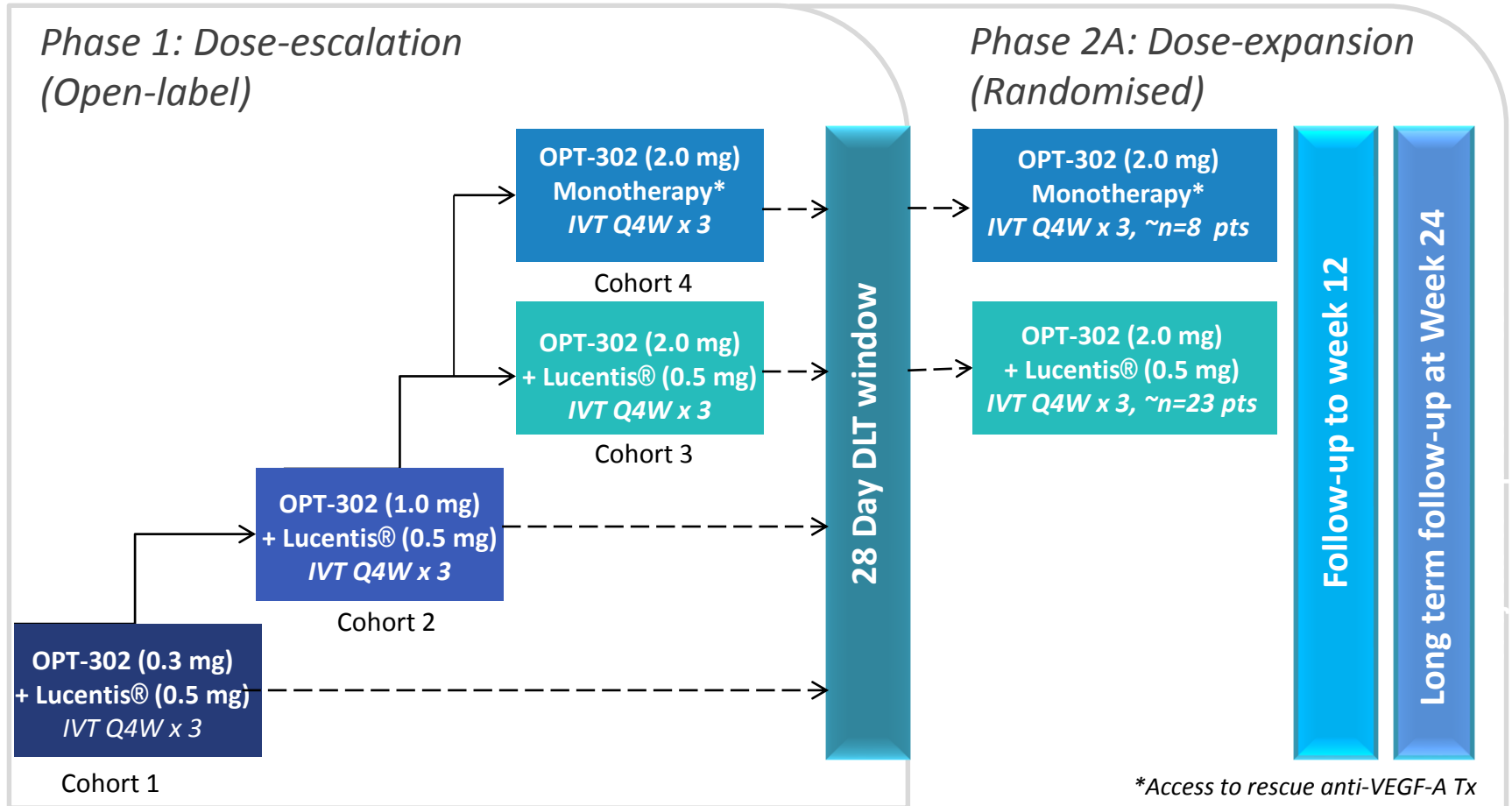


“Because wet AMD is such a complex disease with multiple pathways, it is likely that a combination of drugs will be able to provide better outcomes.”

— Macular Disease Foundation Australia,  
Macular Degeneration Research Update December 2015



## Dose-escalation & dose-expansion of repeated IVT injections



- Comprises of 4 treatment cohorts of 5 subjects each
- Both treatment-naïve and prior-treated patients were recruited

# OPT-302 Safe & Well Tolerated in Phase 1 Study

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- **OPT-302 successfully met primary safety objective in Phase 1 dose escalation study**
- No dose limiting toxicities (and MTD not reached) through week 12 in:
  - OPT-302 monotherapy (2.0 mg), and
  - Cohorts of OPT-302 (0.3, 1, 2 mg) in combination with Lucentis® (0.5 mg)
- No signs of infection (endophthalmitis)
- No clinically significant changes in:
  - Intraocular pressure
  - ECGs
  - Blood pressure
  - Blood chemistry or other vital signs
- No evidence of drug-related immunogenicity



# OPT-302 Phase 1 Secondary Endpoints

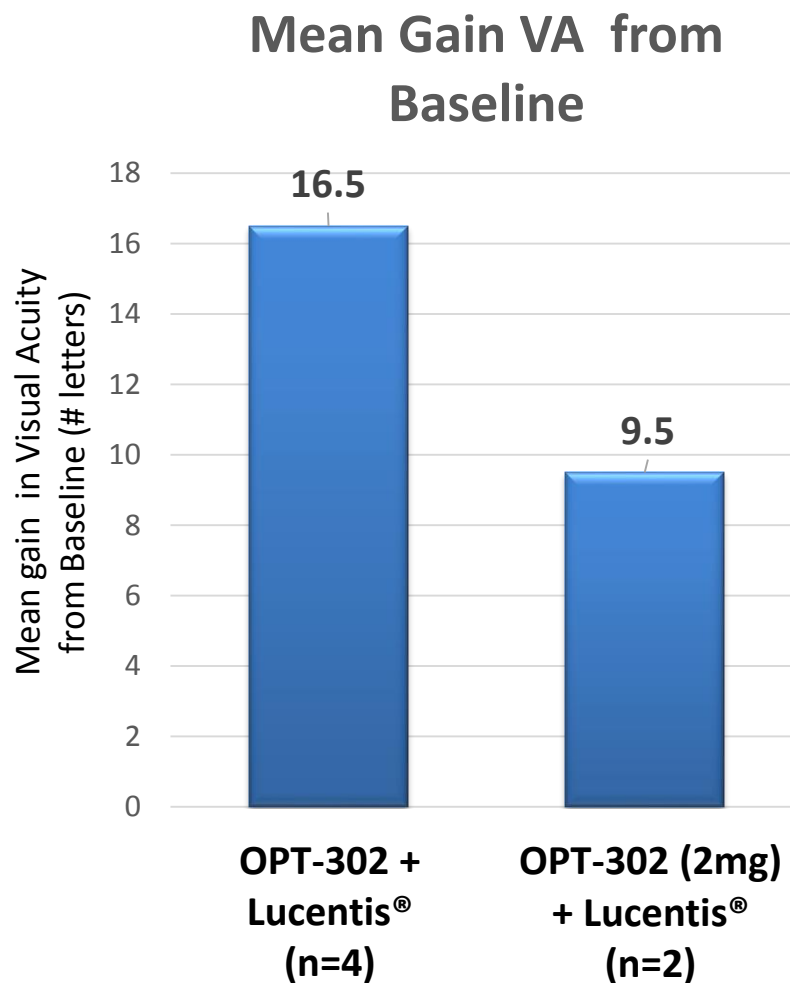
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- Overall, 16/19 evaluable pts maintained or gained vision from baseline to week 12
- No patient lost more than 3 letters
- All of the patients that lost vision from baseline received combination OPT-302 + Lucentis<sup>®</sup> therapy

# Naïve Patients

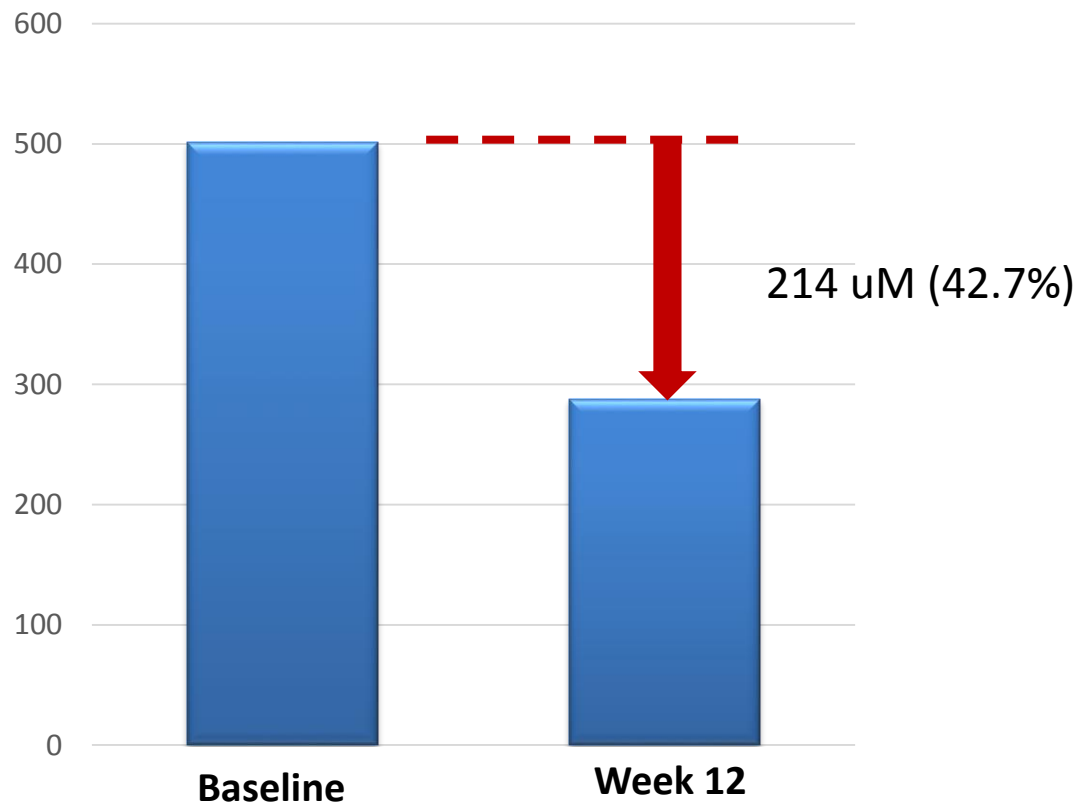
# Treatment-Naïve Patients: Visual Acuity

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# Treatment-Naïve Patients: Retinal Thickness

## Mean Central Subfield Thickness



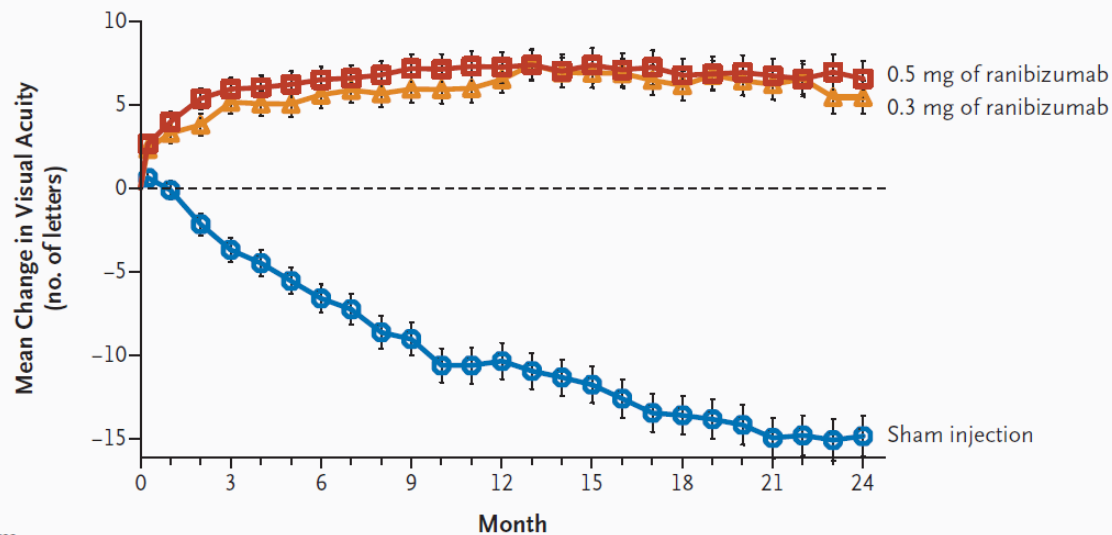
**OPT-302 + Lucentis®  
(n=4)**

# Prior-Treated Patients

(Sub-responsive to anti-VEGF-A)

# Prior-Treated Patients: Visual Acuity

- Majority of vision gain in Lucentis® treated patients occurs within 3 months
- Plateau “ceiling effect” of response with no other treatment options
- Difficult to treat patient population, very large market opportunity
- Mean number of Prior anti-VEGF-A therapies: 10.5 (Mean 3 – 55)

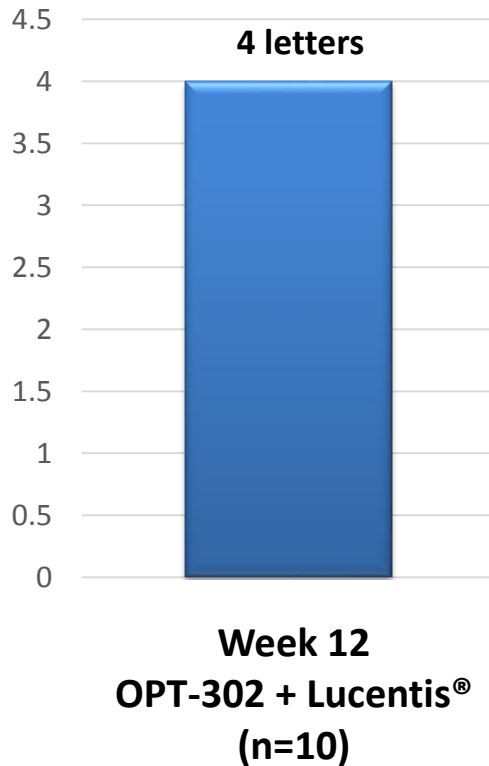


Mean Change from Baseline	(day 7)								
	0	3	6	9	12	15	18	21	24
0.5 mg of ranibizumab	+2.6	+5.9	+6.5	+7.2	+7.2	+7.4	+6.8	+6.7	+6.6
0.3 mg of ranibizumab	+2.3	+5.1	+5.6	+5.9	+6.5	+6.9	+6.1	+6.2	+5.4
Sham injection	+0.6	-3.7	-6.6	-9.1	-10.4	-11.8	-13.6	-15.0	-14.9

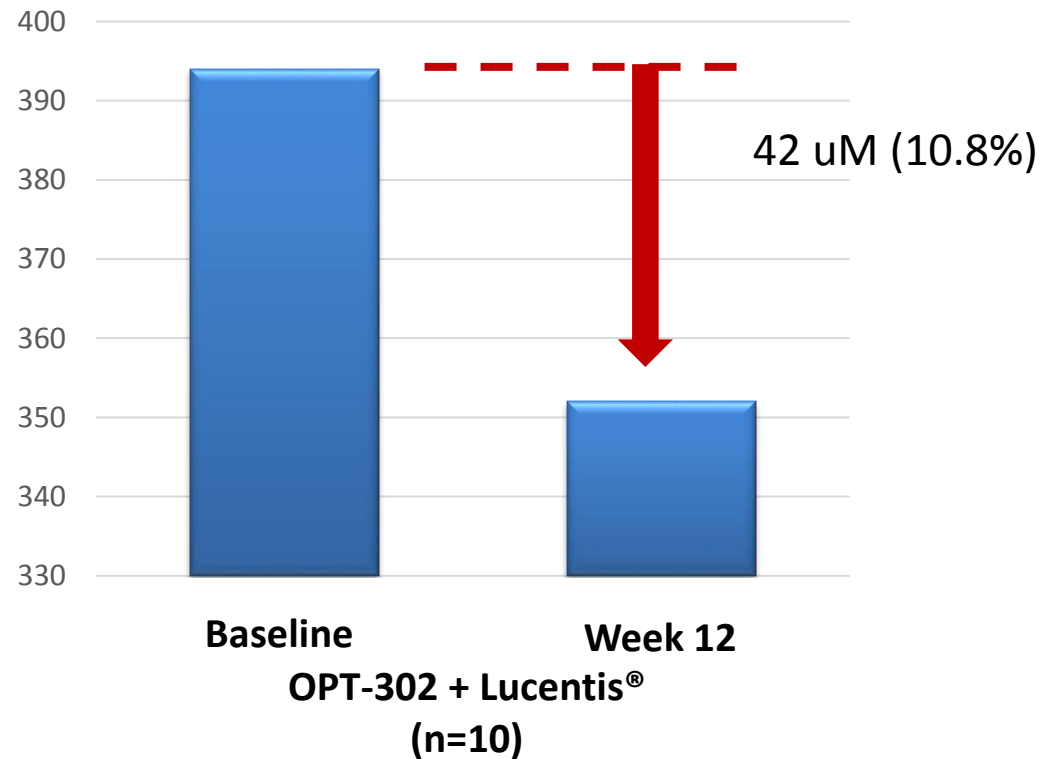
MARINA Phase 3 in wet AMD. Rosenfeld et al., NEJM, 355;14, pp 1419-1431, 2006

# Prior-Treated Patients: Visual Acuity & Retinal Thickness

## Mean Change VA from Baseline



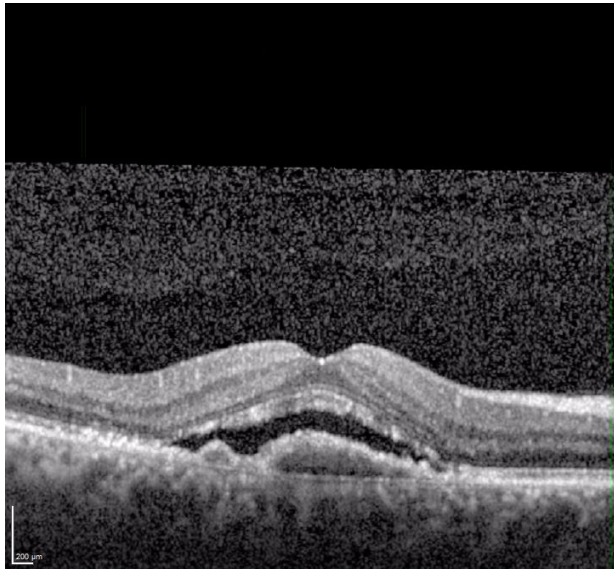
## Mean Central Subfield Thickness



# Prior-Treated Patient: OPT-302 (0.3 mg) + Lucentis<sup>®</sup> (0.5 mg)

- Male aged 64
- Occult lesion
- Prior treatment: Eylea<sup>®</sup>/REGN-910-3 x6

**Baseline**



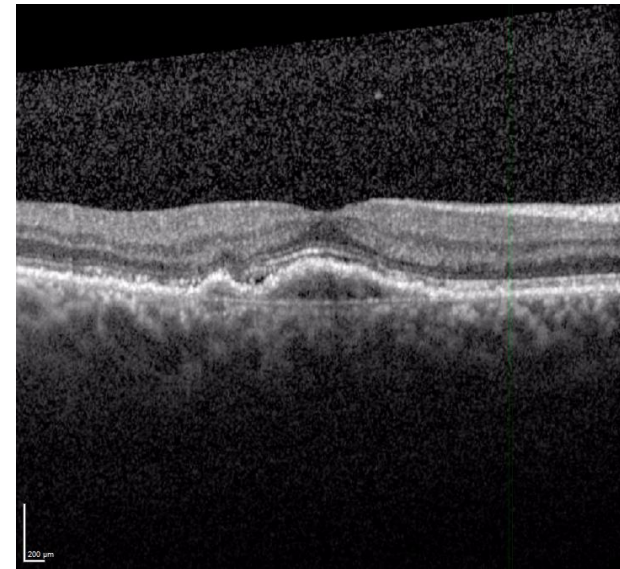
VA: 77 letters  
CST: 365 µM

**Week 4**



VA: 83 letters  
CST: 281 µM

**Week 12**



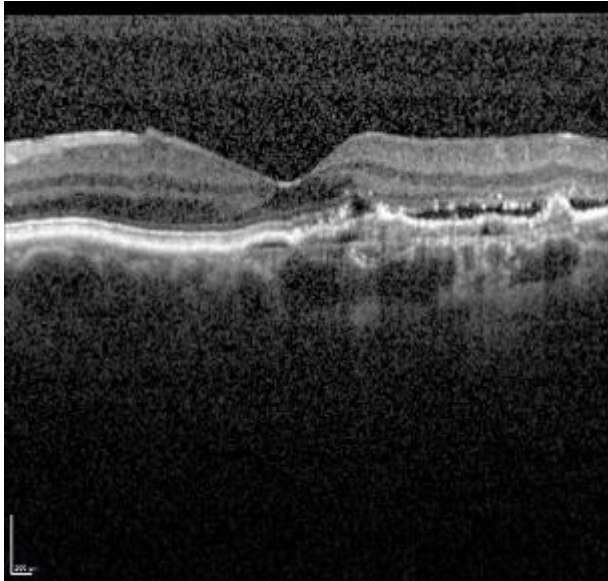
VA: 79 letters  
CST: 298 µM



# Prior-Treated Patient: OPT-302 (1.0 mg) + Lucentis<sup>®</sup> (0.5 mg)

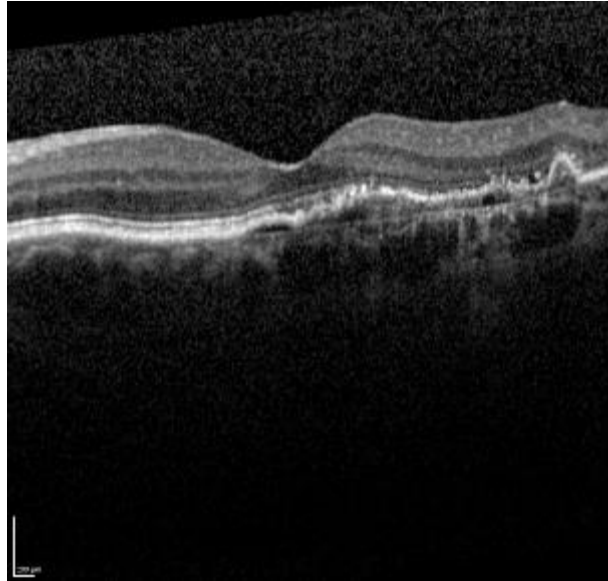
- Female aged 71
- Occult lesion
- Prior treatment: Avastin<sup>®</sup> x10

**Baseline**



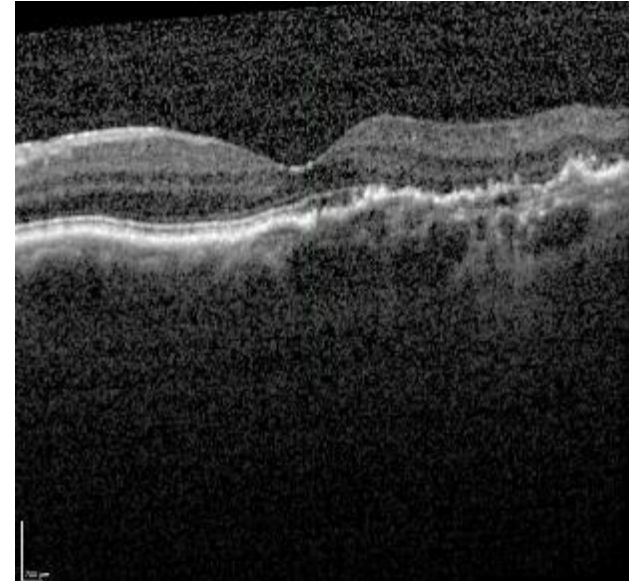
VA: 74 letters  
CST: 270 μM

**Week 4**



VA: 74 letters  
CST: 258 μM

**Week 12**



VA: 84 letters  
CST: 255 μM

# OPT-302 Program Highlights

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- Broad development potential
- Targets validated pathway
- Targets incomplete response to existing therapies
- Large unmet medical need for wet AMD & mkt opportunity
- Phase 1 study: safe & well tolerated
- Evidence of clinical activity
- Consistency of responses across multiple endpoints
- Warrants investigation Ph2B
- Phase 2A fully enrolled – primary analysis 1Q'17
- Planning for Phase 2B in 2017



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