



Gaining Momentum in Gene Therapy

OIS@ASRS

July 25, 2019



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Adverum is a Clinical-stage Gene Therapy Company with Industry-leading Expertise



ADVM-022, single-injection gene therapy candidate targeting wet AMD:

- First intravitreally-delivered gene therapy for wet AMD utilizing proprietary AAV.7m8 vector
- OPTIC Phase 1 trial evaluating ADVM-022 in patients with wet AMD
- OPTIC 24-week primary and secondary endpoint data from first cohort (n=6) to be presented at Retina Society 9/2019



Industry-leading AAV platform and capabilities:

- Next-generation vectors
- Robust patent portfolio
- Scalable manufacturing process



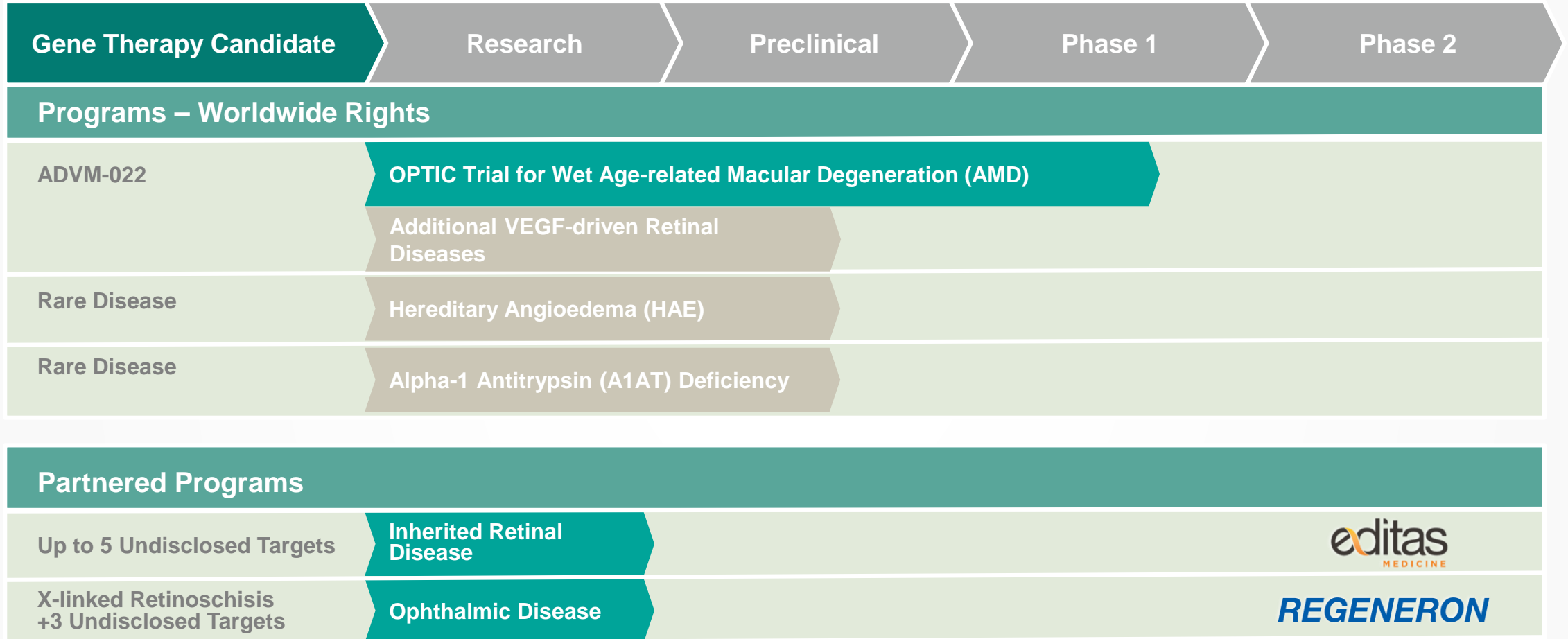
~\$189.5M in cash* to fund operations into 2021



Leadership team with **extensive industry expertise**

*Cash, cash equivalents, and short-term investments as of March 31, 2019 (unaudited).

Advancing Gene Therapies for Ocular and Rare Diseases



ADVM-022:

Gene Therapy Designed to Provide Long-term Anti-VEGF Treatment with a Single Intravitreal Injection



- › **Single intravitreal** injection of ADVM-022 to provide sustained delivery of **standard-of-care anti-VEGF protein**



- › **Robust protein levels** measured in non-human primate (NHP) vitreous humor up to **30 months** post injection



- › **Long-term efficacy demonstrated** in NHPs comparable to an anti-VEGF standard-of-care therapy



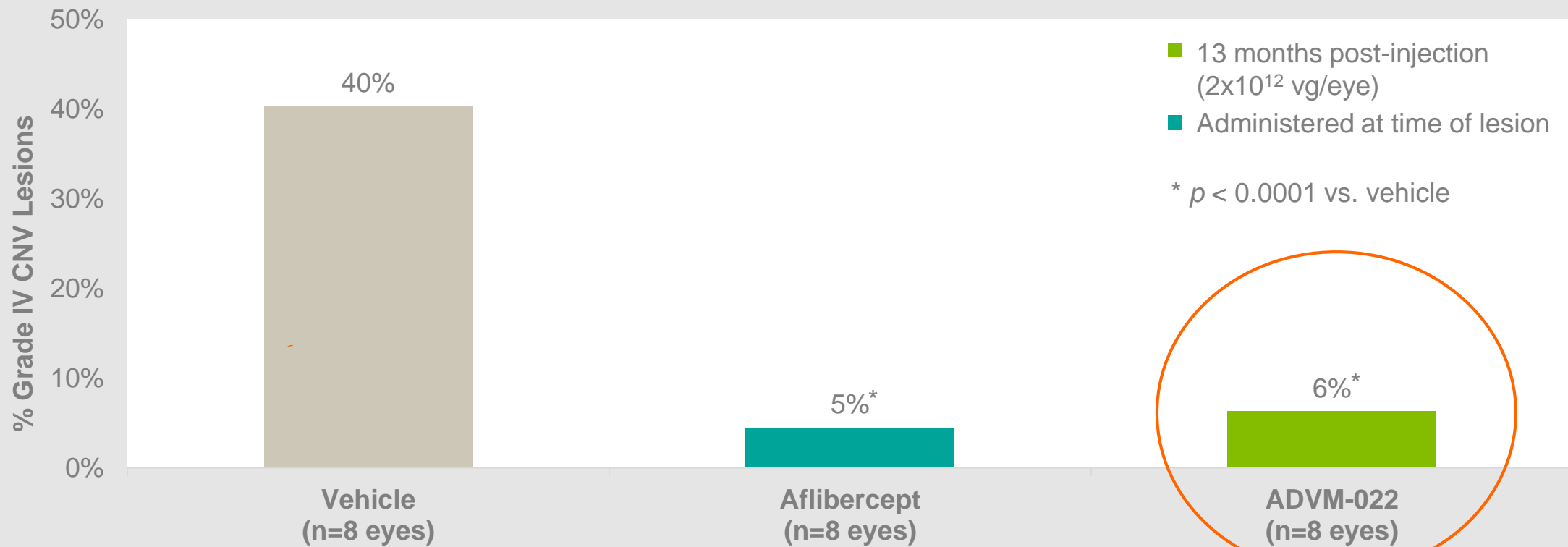
- › **Long-term safety demonstrated:** Normal retinal structure and function is **maintained out to 30 months** in NHPs post injection



- › **Proprietary AAV.7m8 vector and promoter sequences**
- › **Broad patent protection**
- › **FDA Fast Track Designation for wet AMD**

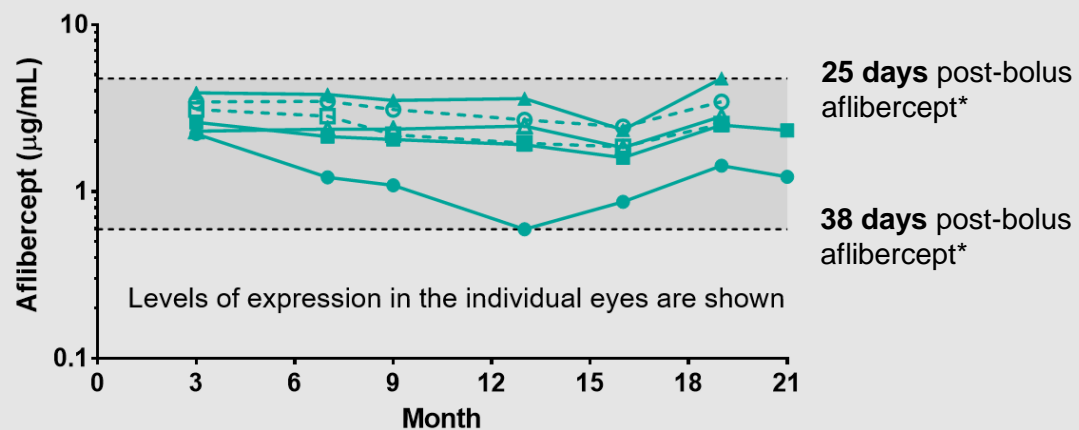
Single Injection of ADVM-022 in NHPs Shows Efficacy 13 Months Post Injection Comparable to Standard-of-Care

ADVM-022 Long-term Efficacy (AAV.7m8-aflibercept)



Single IVT ADVM-022: Long-Term Sustained Aflibercept Expression Levels Comparable to Aflibercept-injected Eyes

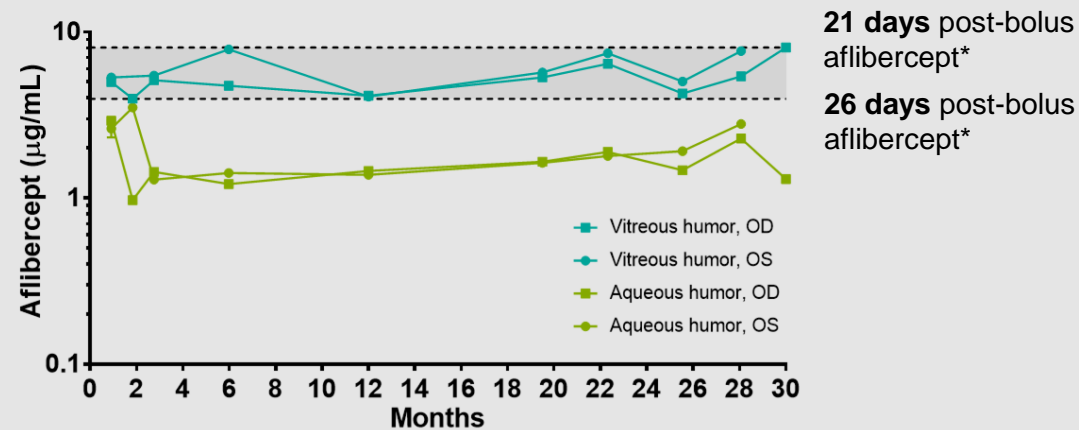
ADVM-022 Sustained Expression in Vitreous up to 21 Months



2×10^{12} vg/eye. N=3 animals; both eyes injected at t=0

- ADVM-022 induces robust and persistent aflibercept expression in the vitreous over the 21-month study in lasered and non-lasered eyes

ADVM-022 Sustained Expression in Vitreous and Aqueous Humor 30 Months Post Injection



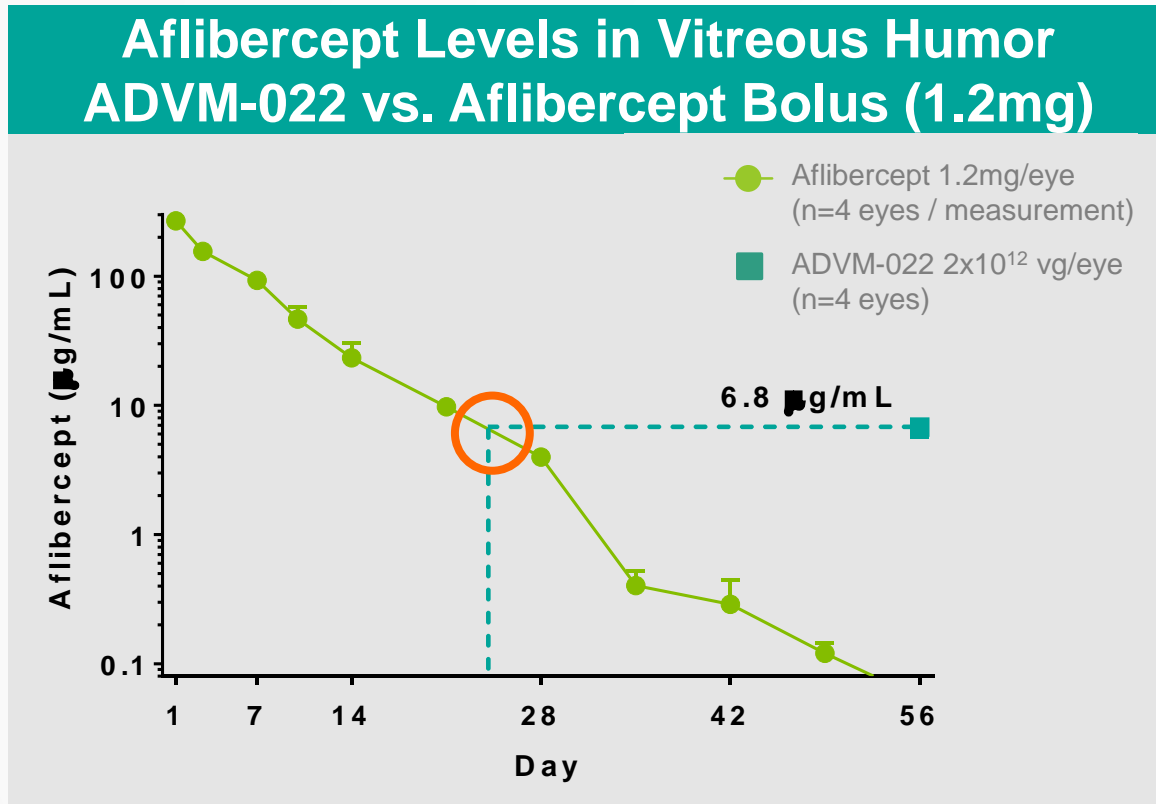
2×10^{12} vg/eye. N=1 animal; both eyes injected at t=0

- At 30 months post-injection of ADVM-022, pharmacologically-relevant levels of aflibercept were induced in the vitreous and aqueous humor

* Time after IVT bolus of aflibercept protein (1.2 mg/eye) when similar aflibercept levels were observed in NHPs (Grishanin et al, ESGCT 2018)

Source: Oral presentation, American Society of Gene and Cell Therapy (ASGCT) 22nd Annual Meeting, May 2019
NHP = Non-human primates

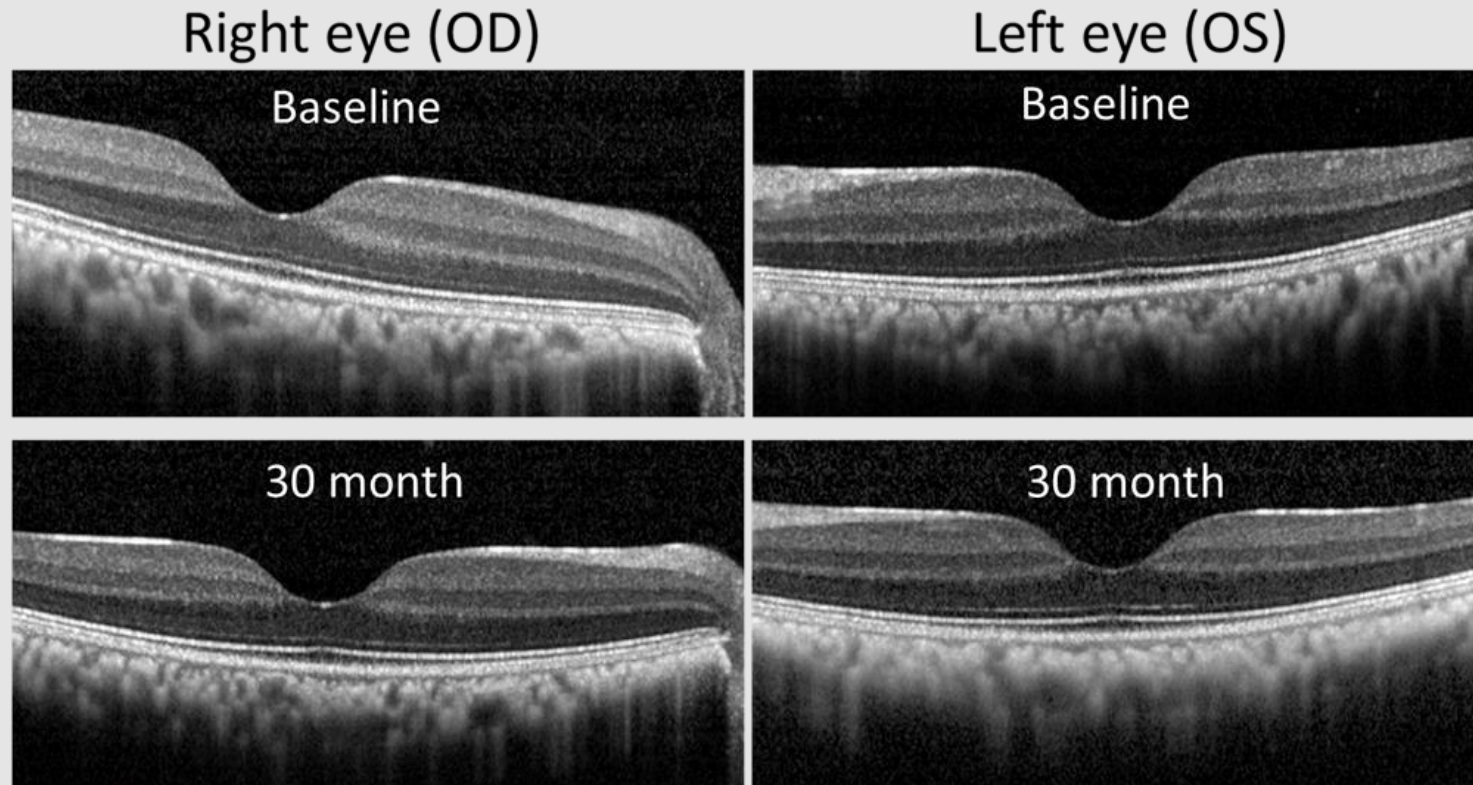
ADVM-022 Induced Aflibercept Levels in NHPs within Therapeutic Window for Standard-of-care Aflibercept Treatment



- › Levels of vector-derived aflibercept measured in the vitreous humor 56 days post ADVM-022 injection **match levels of aflibercept recombinant protein 3-4 weeks post-bolus** of protein injection
- › Measured levels are **within the duration of action** for aflibercept

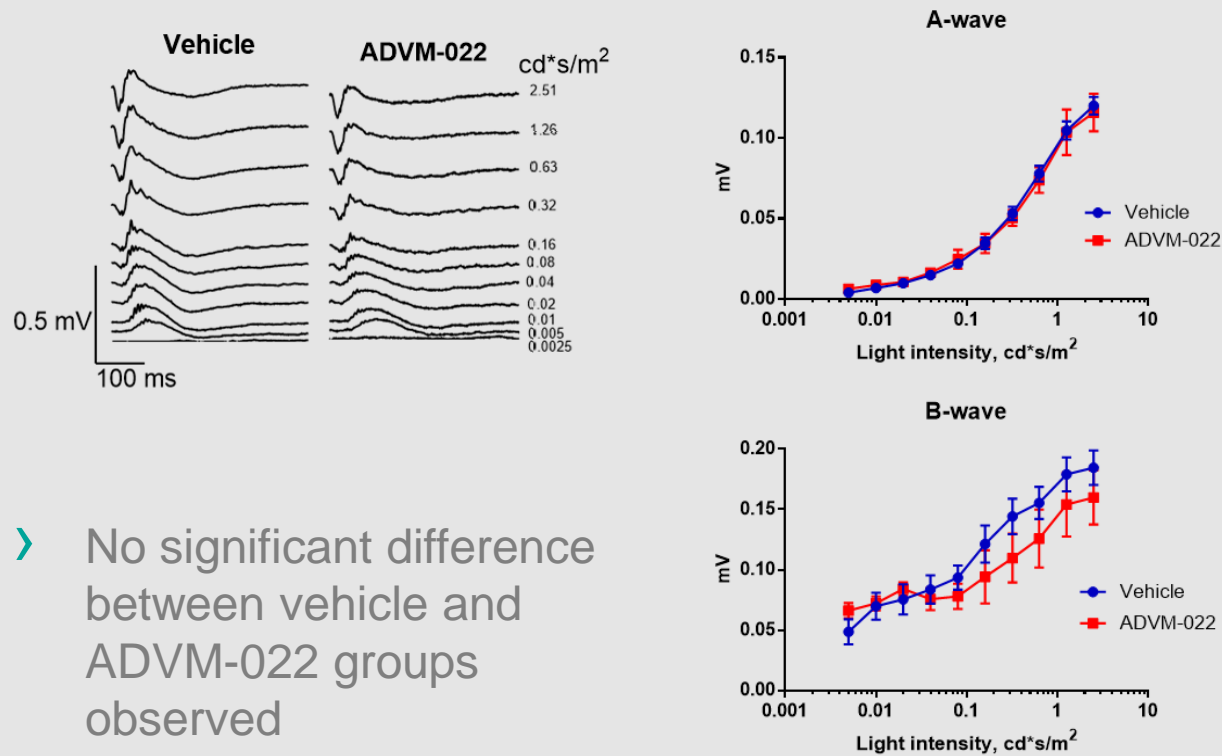
Long-term Expression of Aflibercept in Retina from ADVM-022 Does Not Affect Retinal Morphology

OCT sections of retinas from NHP IVT injected with ADVM-022 (2×10^{12} vg/eye) at baseline and 30 months post-dose

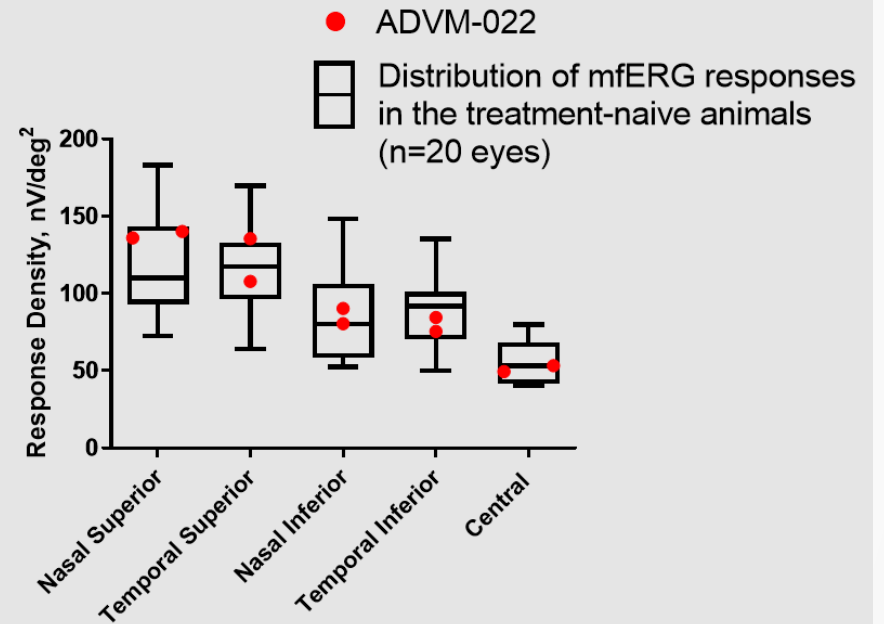


Normal ERG Responses upon Sustained Expression of Aflibercept in NHP Eyes Dosed with ADVM-022

Full field scotopic ERG in vehicle and ADVM-022 treated eyes 19 months post-dose



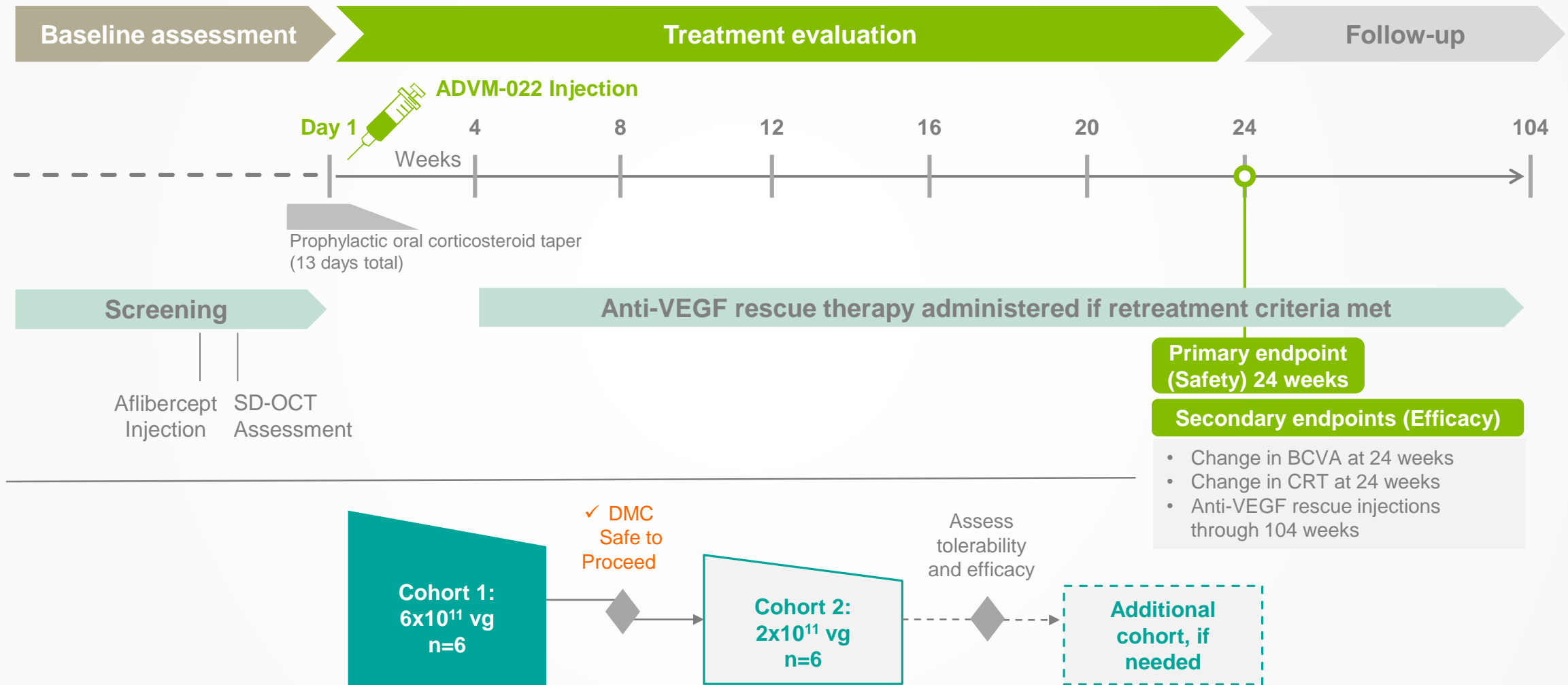
Multifocal ERG in ADVM-022 treated eyes 30 months post-dose



➤ Treated eyes 30 months post-dose is within normal mfERG response limits

ADVM-022 OPTIC Phase 1 Trial for Wet AMD

Initiated 4Q18, Currently Enrolling Cohort 2



OCT = Optical Coherence Tomography

Upcoming Corporate Milestones

ADVM-022 for Wet AMD

- ✓ Dosed first patient in OPTIC phase 1 cohort 2 at 2×10^{11} vg/eye 6/2019
- OPTIC phase 1 data from first cohort to be presented at The Retina Society 52nd Annual Meeting 9/2019

Rare Disease Programs

- Update on programs Mid-Y19

In-house Manufacturing Capabilities

- Occupy new facility with expanded in-house process development capabilities to 1000L YE19

~\$189.5M in cash* to fund operating expenses and capital expenditures into 2021

*Cash, cash equivalents, and short-term investments as of March 31, 2019 (unaudited).

The logo for Adverum Biotechnologies features the word "ADVERUM" in a teal, sans-serif font. The letter "A" is stylized with a small yellow dot above it. Below "ADVERUM", the word "BIOTECHNOLOGIES" is written in a smaller, green, sans-serif font. The background is white with abstract, flowing lines in teal and green on the left and right sides.

ADVERUM
BIOTECHNOLOGIES

Nasdaq: ADVM