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Supplemental Information

Analysis of Aflibercept Expression in NHPs following Intravitreal Administration of ADVM-022, a Potential Gene Therapy for nAMD

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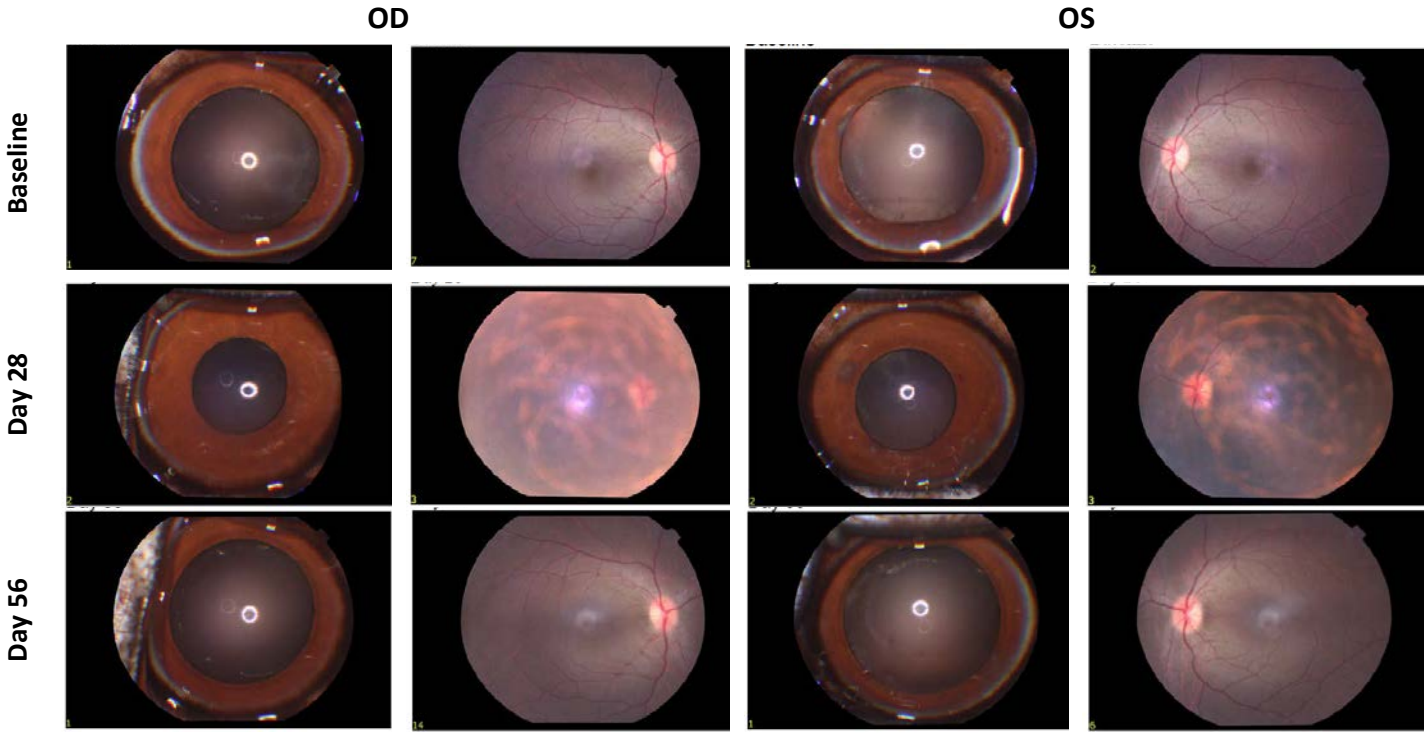
SUPPLEMENTAL INFORMATION

Table S1. Effect ADVM-022 dose on the intraocular aflibercept expression at Day 56 post-dose

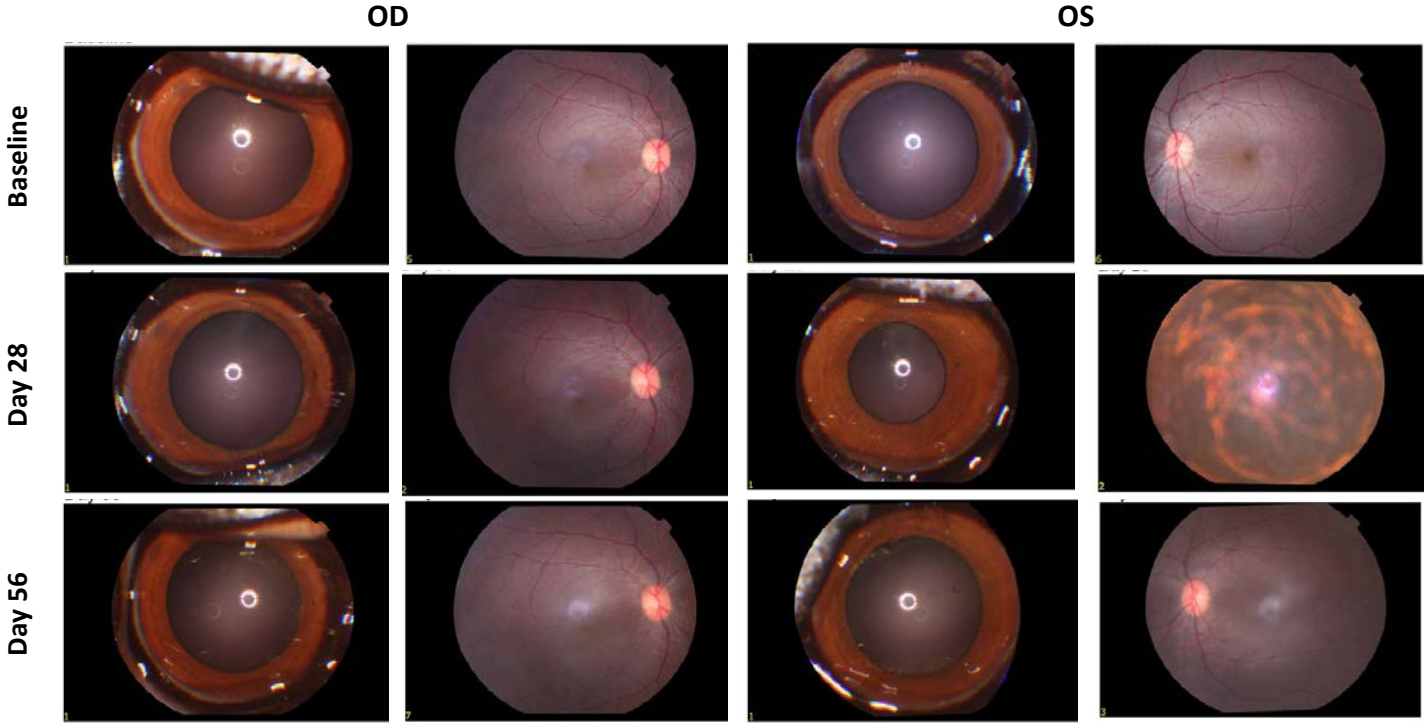
Treatment Group	Animal		Aflibercept levels			
			Vitreous humor	Aqueous humor	Retina	Choroid
Group 2 2×10^{11} vg/eye	1	OD	4.3 µg/mL	0.5 µg/mL	4.1 µg/g	0.9 µg/g
		OS	5.3 µg/mL	0.7 µg/mL	5.5 µg/g	0.7 µg/g
	2	OD	2.5 µg/mL	0.4 µg/mL	2.2 µg/g	1.7 µg/g
		OS	2.4 µg/mL	0.3 µg/mL	2.2 µg/g	0.3 µg/g
Group 3 6×10^{11} vg/eye	3	OD	5.0 µg/mL	1.6 µg/mL	5.9 µg/g	4.5 µg/g
		OS	6.0 µg/mL	0.8 µg/mL	6.4 µg/g	0.7 µg/g
	4	OD	2.8 µg/mL	0.5 µg/mL	3.1 µg/g	1.4 µg/g
		OS	3.4 µg/mL	0.8 µg/mL	3.0 µg/g	1.0 µg/g
Group 4 2×10^{12} vg/eye	5	OD	6.1 µg/mL	1.5 µg/mL	6.3 µg/g	2.3 µg/g
		OS	4.1 µg/mL	1.3 µg/mL	6.0 µg/g	2.0 µg/g
	6	OD	8.0 µg/mL	1.6 µg/mL	8.4 µg/g	9.6 µg/g
		OS	9.0 µg/mL	2.5 µg/mL	8.6 µg/g	3.9 µg/g

Supplemental figures

Animal A581, 2E11 vg/eye



Animal A633, 6E11 vg/eye



Animal A136, 2E12 vg/eye

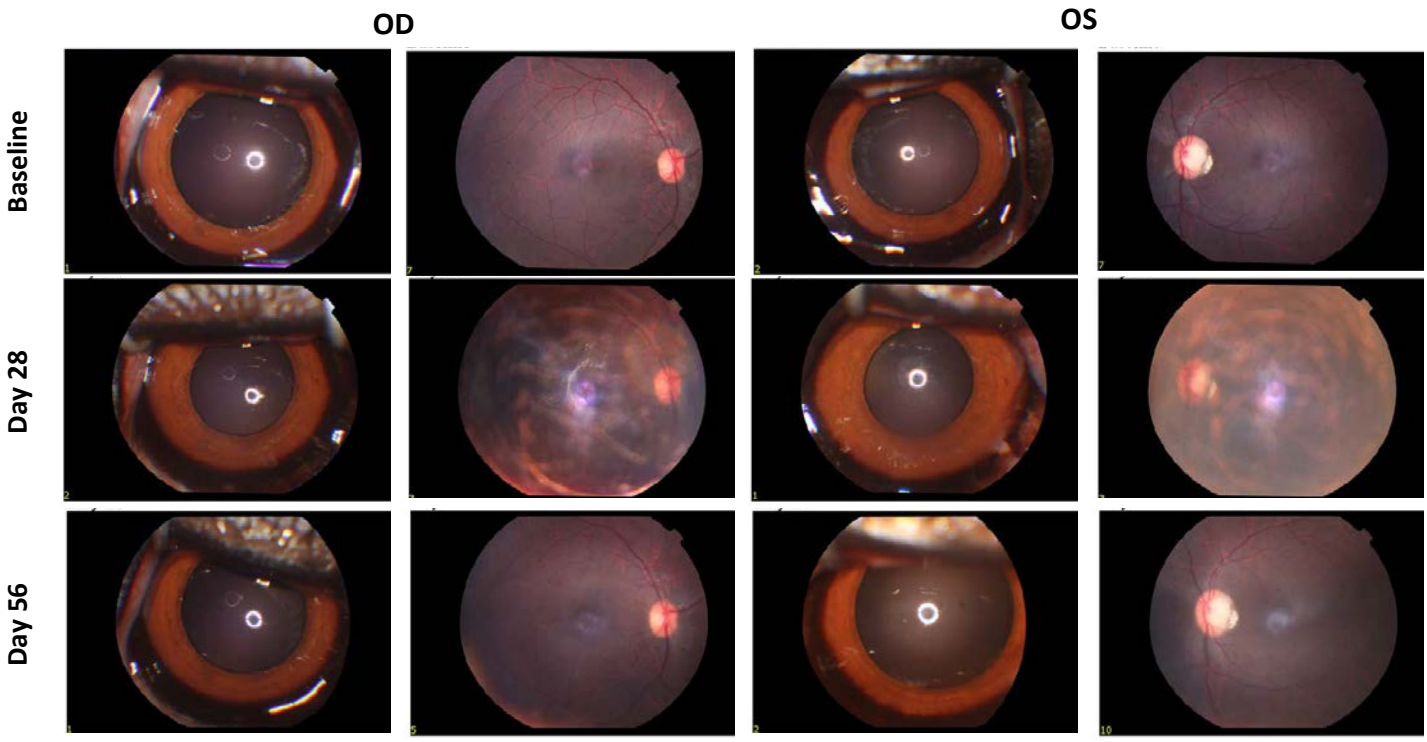


Figure S1. Representative anterior segment and dilated fundus photographs of non-human primates receiving a single intravitreal injection of ADVM-022 at 2×10^{11}, 6×10^{11} and 2×10^{12} vg/eye. Images collected at baseline, Day 28 and Day 56 post-dose are shown. On day 28 following the injection, anterior chamber inflammation is noted (although not evident on the photographs); there is incomplete pupillary dilation in all six eyes as a result of the anterior inflammation. Fundus photographs at day 28 demonstrate a hazy view of the posterior segment structures (optic nerve, macula and vasculature) in 5 of 6 eyes. (The orange coloring in the photographs is an artifact as a result of the inflammation in the anterior and posterior segments) By day 56, inflammation has resolved in all eyes without treatment; the pupillary dilation returns to baseline and the views of the posterior segment structures is complete.

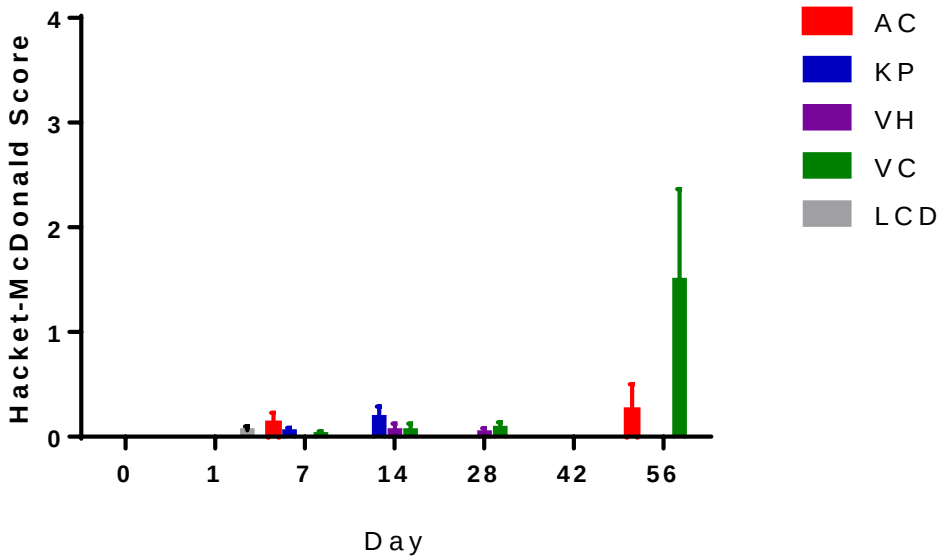


Figure S2. Aflibercept IVT administration at 1.2 mg/eye results in sporadic inflammatory manifestations in the eye. Aqueous cell (AC), keratic precipitate (KP), lens capsule deposit (LCD), vitreous cells (VC) and vitreous haze (VH) were parameters observed out of 21 parameters scored by slit-lamp examination (see Methods). Scores shown as Mean ± SEM, n=24 (Baseline and Day 1), n=20 (Day 7), n=16 (Day 14), n=12 (Day 28), n=8 (Day 42), n=4 (Day 56).