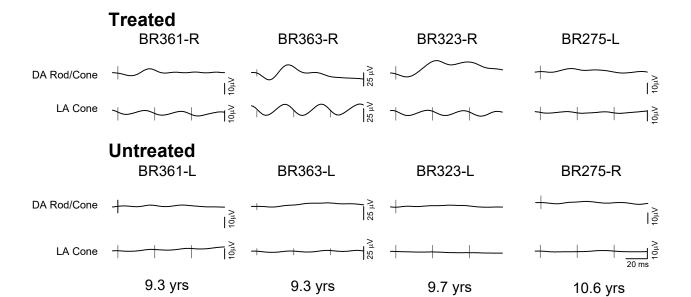
Supplemental Information

Long-Term Structural Outcomes

of Late-Stage RPE65 Gene Therapy

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Supplemental Figure 1. Illustration of full-field ERGs recorded from the treated and untreated eyes of RPE65-mutant dogs at the end of study. Shown are the dark-adapted mixed rod-cone responses (DA Rod/Cone) and the light-adapted 29Hz flicker responses (LA Cone). In contrast to untreated eyes, at the end of study all treated eyes had distinct ERG responses under dark- and light-adapted conditions. There was, however, variability in the ERG amplitudes among the treated eyes with BR363-R showing the most robust responses, and BR275-L showing the most reduced responses. There were no recordable responses in untreated eyes.

Supplemental Table 1. Experimental animals and procedures used in the study.

Animal ID	Gender	Status	Tx Age yrs	Vector vol and titer* (dose)	OCT age yrs	Histopathology (PI interval) yrs
BR275	Female	affected	yıs	OD:	6.4, 7.2, 7.5, 7.9, 8.9,	10.6 (4)
			6.6	OS: 190 μL; 3.96x10 ¹¹	9.4, 10, 10.6 (OS only;	
				(7.5 x10 ¹⁰ vg)	cataract OD)	
BR323	Female	affected	5.3	OD: 200 µL; 3.96x10 ¹¹	5.1, 5.6, 6.0, 6.3, 7.3,	9.9 (4.6)
				(7.9 x10 ¹⁰ vg)	7.8, 8.4, 9.1, 9.7 (OU)	
				OS:		
BR361	Male	affected	4.9	OD: 160 µL; 3.96x10 ¹¹	4.8, 5.2, 5.6, 5.9, 6.9,	9.5 (4.6)
				(6.3 x10 ¹⁰ vg)	7.4, 8.0, 8.7, 9.4 (OU)	
				OS:		
BR363	Female	affected	4.9	OD: 200 µL; 3.96x10 ¹¹	4.8, 5.2, 5.5, 5.9, 6.9,	9.5 (4.6)
				(7.9 x10 ¹⁰ vg)	7.4, 8.0, 8.7, 9.4 (OU)	
				OS:		
BR304	Female	affected	-		OU-5.2	5.2
BR318	Female	affected	-		OU-5.1, 5.2	5.2
BR354	Female	affected	-		OS-5.0	-
CGBCAN,	Male					
CGBCDI,	Male	WT	-		OU-0.7	-
CGBGS	Male					
X236	Female					8.6
GSK-1	Male	WT	-	-	-	4.3
GSK2	Male					4.3
D347	Male					6.0

^{*} vector: rAAV2-CMV/CBA-hRPE65; vector titer expressed as vector genomes/mL affected=homozygous for RPE65 mutation; WT=wildtype control PI=post-injection; OS= left eye; OD=right eye; OU=both eyes