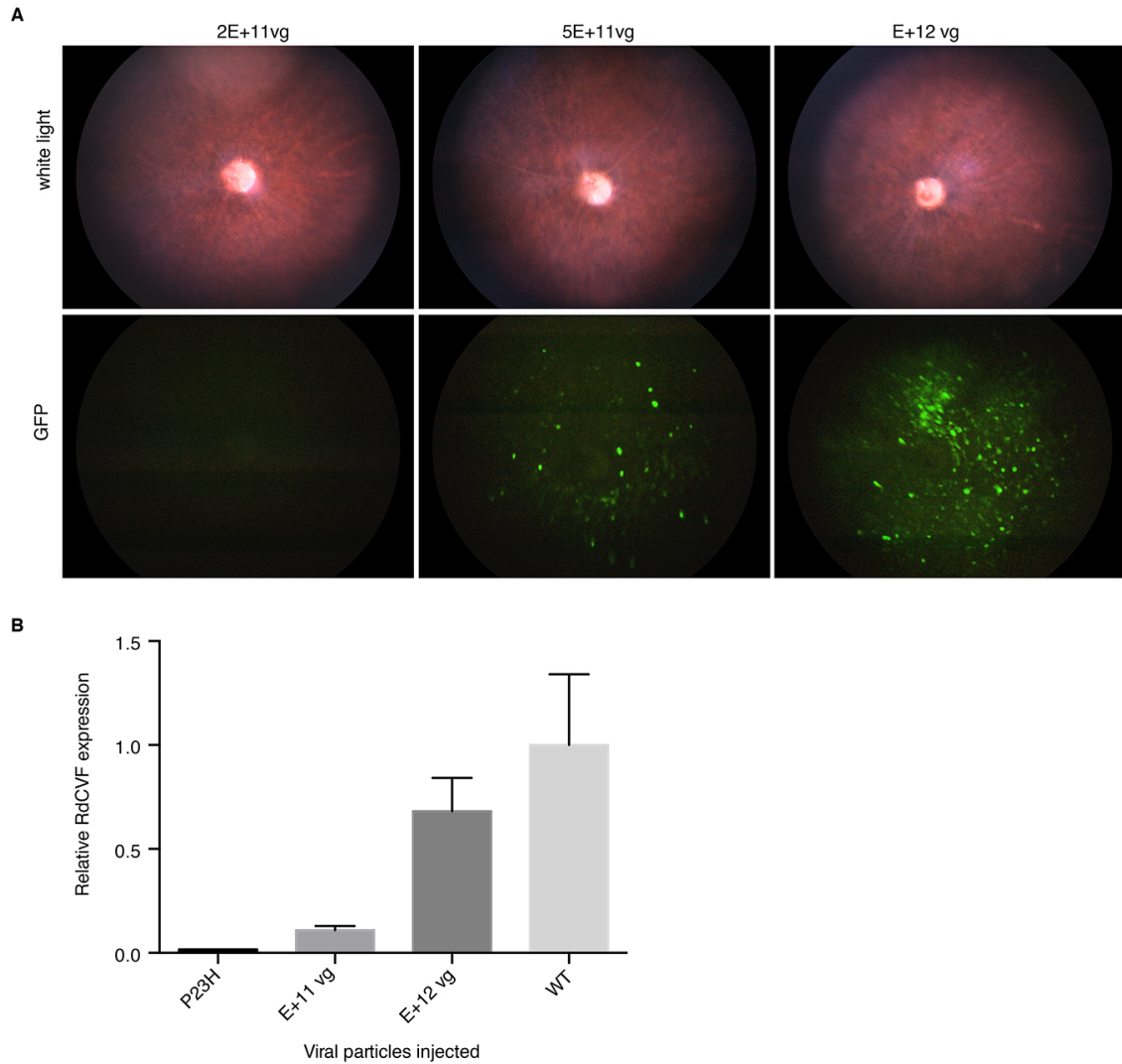
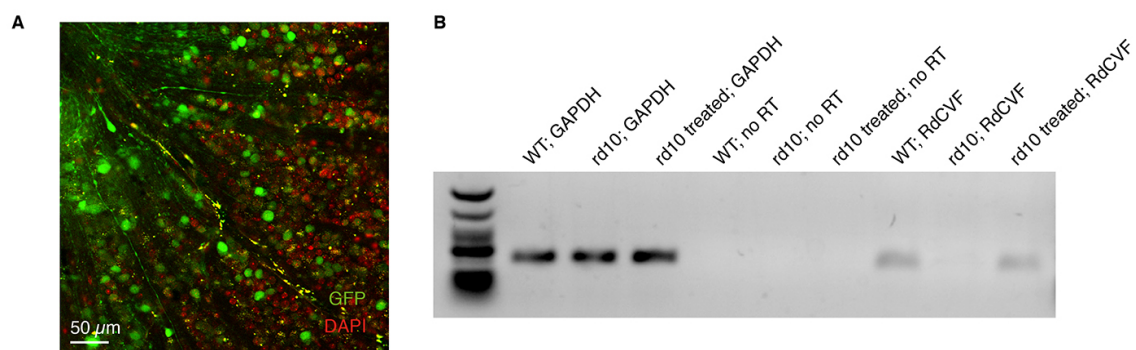


**Supplemental Figure 1.** Onset of transgene expression.

(A) Seven days after systemic injection of AAV92YF-scCAG-GFP, native expression of the transgene is apparent in flatmounted retinas (n=4). (B) One week after intravitreal injection of 7m8-scCAG-GFP, GFP expression is visible in fundus images (n=5).



**Supplemental Figure 2.** Dose response curve of systemically injected AAV92YF. (A) Fundus imaging illustrating GFP expression one month after injection of 2E+11, 5E+11, or E+12 viral particles. (B) qRT-PCR reveals that 4 months after treatment in *rd10* mice, injection of E+11 particles results in RdCVF levels of  $11 \pm 2\%$  of WT, while injection of E+12 particles results in RdCVF levels of  $68 \pm 16\%$  of WT. Data represent 5 biological replicates.



**Supplemental Figure 3.** Duration of transgene expression.

(A) One year after systemic injection of AAV92YF-scCAG-GFP, native GFP expression is apparent in retinal flatmounts (n=5). (B) RT-PCR from n=5 pooled retinas shows that one year after systemic injection of AAV92YF-scCAG-RdCVF, transgene expression of RdCVF persists.