Figure S4. Microglial process interaction with the photoreceptor outer segments and RPE after nanosecond laser treatment. Mouse eyes (Cx3cr1$^{GFP/+}$) were treated with nanosecond laser (20 spots, 0.065mJ laser energy) and tissue processed after 1 hour. The cone outer segments were stained with the cone marker, peanut agglutinin (PNA, red), while the RPE monolayer was stained for the filamentous actin label, phalloidin (red). In the Cx3cr1$^{GFP/+}$ animal, microglia express GFP (green). After 1 hour post-nanosecond laser treatment, microglial processes are observed to extend through the outer segments of the photoreceptors and interact with the RPE cells at the site of the laser-induced lesion. Scale bar 100µm, ON optic nerve.

Figure S5. The effect of nanosecond laser treatment on markers of RPE cell function. ApoEnull and C57BL/6J mice (10 months of age) were treated with nanosecond laser (20 spots at 0.065mJ) and tissue taken and fixed after 3 months. The expression of genes encoding Retinal Pigment Epithelium-specific protein 65kDa ($Rpe65$) and Cathepsin D ($Ctsd$) were quantified. The genes were used as markers of photopigment recycling ($Rpe65$) and lysosomal function ($Ctsd$) in the RPE. Both genes show no alteration in C57Bl6/J control and ApoEnull control expression. Additionally, nanosecond laser treatment produced no alteration in gene expression in either the treated or fellow eyes in the C57BL/6J or ApoEnull animals. Quantitative data presented as mean ± S.E.M., n>6.