

Supplementary figures

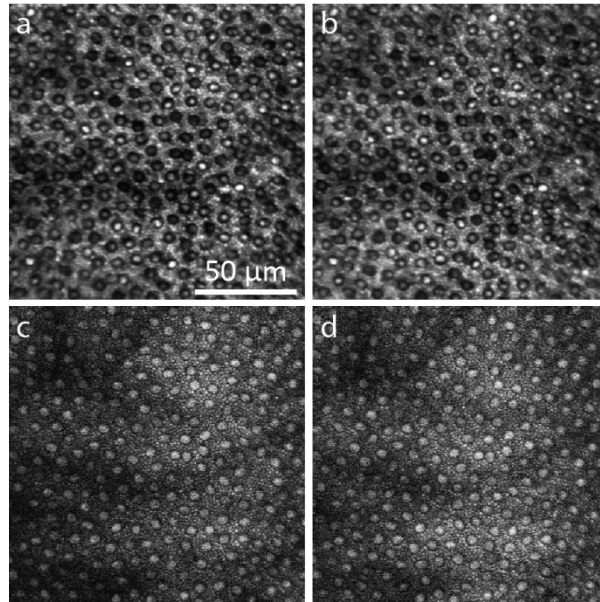


Fig. S1: Representative reflectance (a, b) and TPEF (c, d) images of a peripheral retinal location during the first exposure to 489 J/cm^2 (a, c) and the immediate follow-up (b, d). For exposure to 489 J/cm^2 , no structural or functional changes were observed

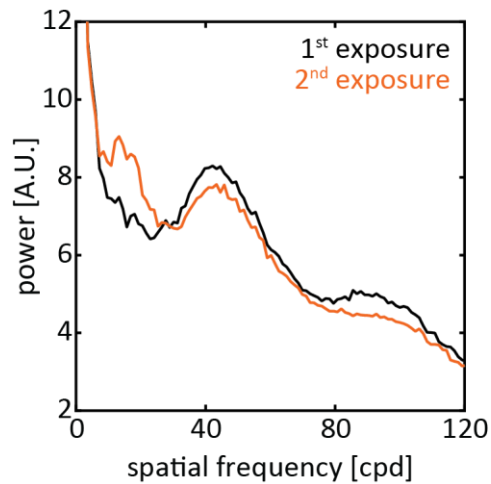


Fig. S4: Spatial frequency amplitude spectrum of photoreceptor images shown in Figure 3c (1st exposure) and d (2nd exposure). The additional peak at a spatial frequency of ~ 13 cpd agrees with the frequency of S cones at a retinal eccentricity of $\sim 2^\circ$ in macaca fascicularis.

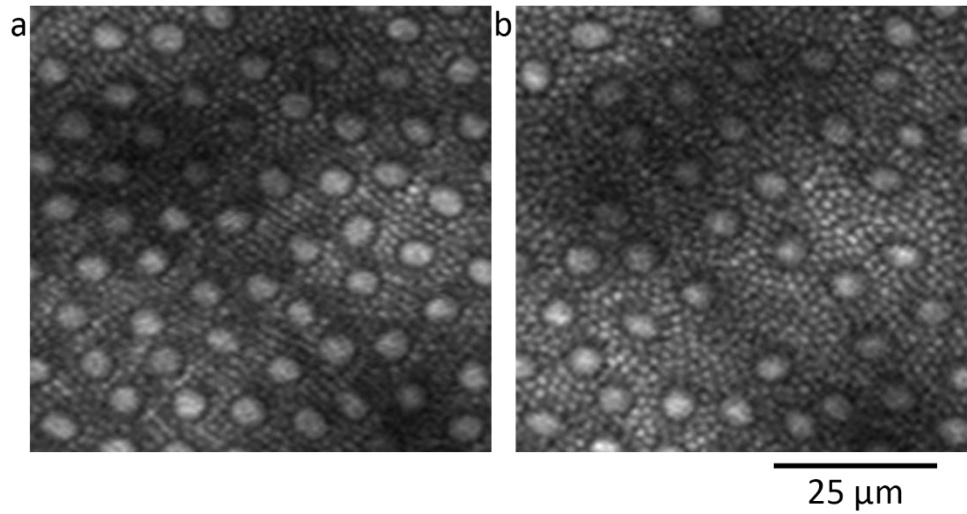


Fig. S5: TPEF image of a retinal location during the first exposure to 856 J/cm^2 (a) and after many exposures of the same kind (b). 18 of 62 cones disappeared as a consequence of the repeated exposure. Two individual observers performed rod counts on these images.

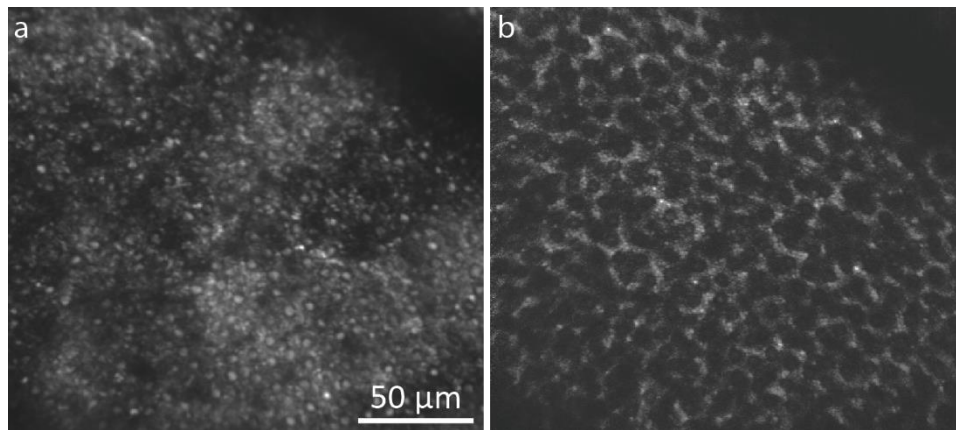


Fig. S7: Reflectance image of the photoreceptor layer (a) at a retinal location where S cone damage was observed and TPEF image of the underlying RPE (b). Dark regions in the upper right of the fluorescence image are related to retinal vessels. Here the illumination wavelength was 900 nm to collect two-photon excited fluorescence from lipofuscin between 400 and 680 nm.