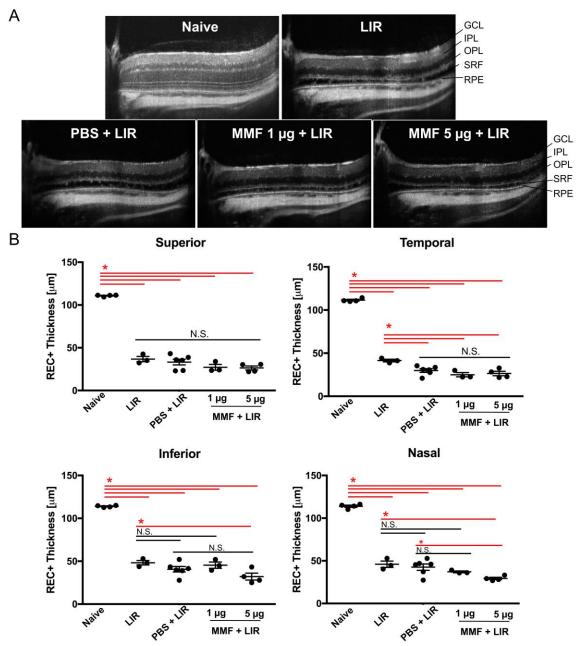
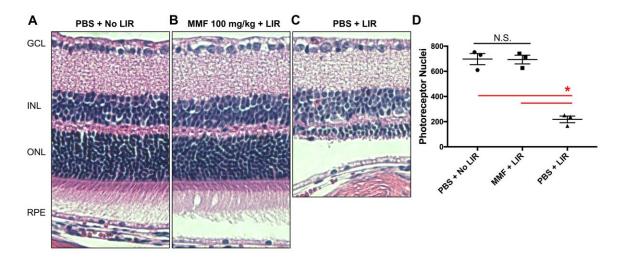


Supplemental Figure 1. Intraperitoneal injection of MMF 1 hour after LIR fails to protect retina structure. (A) Representative SD-OCT scans of the temporal retina. LIR caused ONL depletion and detachment between the RPE and the OPL in PBS-treated mice, which was not rescued by MMF. GCL: ganglion cell layer; IPL: inner plexiform layer; OPL: outer plexiform layer; SRF: subretinal fluid; RPE: retinal pigment epithelium. (B) Quantification of REC+ thickness in all 4 quadrants of retina showed that the REC+ thickness was markedly decreased in PBS (n=5) and MMF injected-mice (n=8), compared to naive mice (n=4). There was no significant difference between the PBS and MMF groups. Each dot represents the average REC+ thickness from the right and left eye of one mouse. Group average is shown as mean  $\pm$  standard error. \*P<0.05. N.S. means non-significant (P>0.05).



Supplemental Figure 2. Intravitreal injection of MMF 1 hour after LIR fails to protect retina structure. (A) Representative SD-OCT scans of the nasal retina. LIR caused ONL depletion and detachment between the RPE and the OPL in PBS-treated mice, which is not alleviated by intravitreal injection of 1  $\mu$ g or 5  $\mu$ g MMF. GCL: ganglion cell layer; IPL: inner plexiform layer; OPL: outer plexiform layer; SRF: subretinal fluid; RPE: retinal pigment epithelium. (B) Quantification of REC+ thickness in all 4 quadrants of retina showed that compared to naive mice, LIR markedly decreased the REC+ thickness, which was not increased with intravitreal delivery of 1  $\mu$ g or 5  $\mu$ g of MMF at 1 hour after light exposure. Each dot represents the average REC+ thickness from the right and left eye of one mouse. Group average is shown as mean ± standard error. \*P<0.05. N.S. means non-significant (P>0.05).



**Supplemental Figure 3. MMF protects photoreceptors from LIR.** Representative histology of the central retina from PBS + No LIR (A), MMF + LIR (B) and PBS + LIR (C) mice. GCL: ganglion cell layer; INL: inner nuclear layer; ONL: outer nuclear layer; RPE: retinal pigment epithelium. (D) Statistical analysis showed that the number of photoreceptor nuclei in the ONL was markedly reduced in the PBS + LIR group, while systemic administration of MMF before LIR preserved photoreceptor nuclei. There was no significant difference in the average number of photoreceptor nuclei between the PBS + No LIR and MMF + LIR groups. Each dot represents the number of photoreceptor nuclei counted in a 40X retinal section. Group average is shown as mean  $\pm$  standard error. N=3. \*P<0.05. N.S. means non-significant (P>0.05).