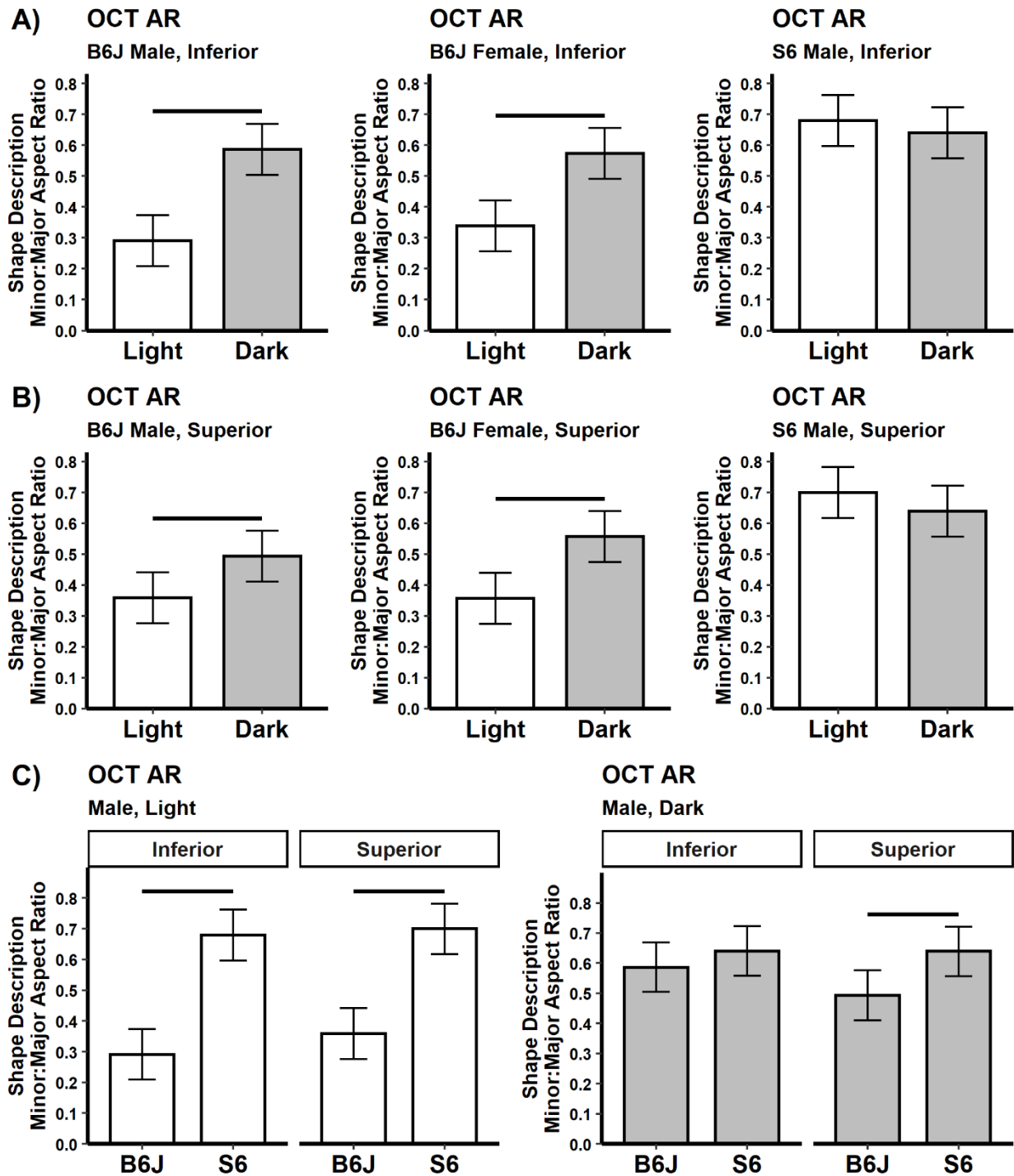
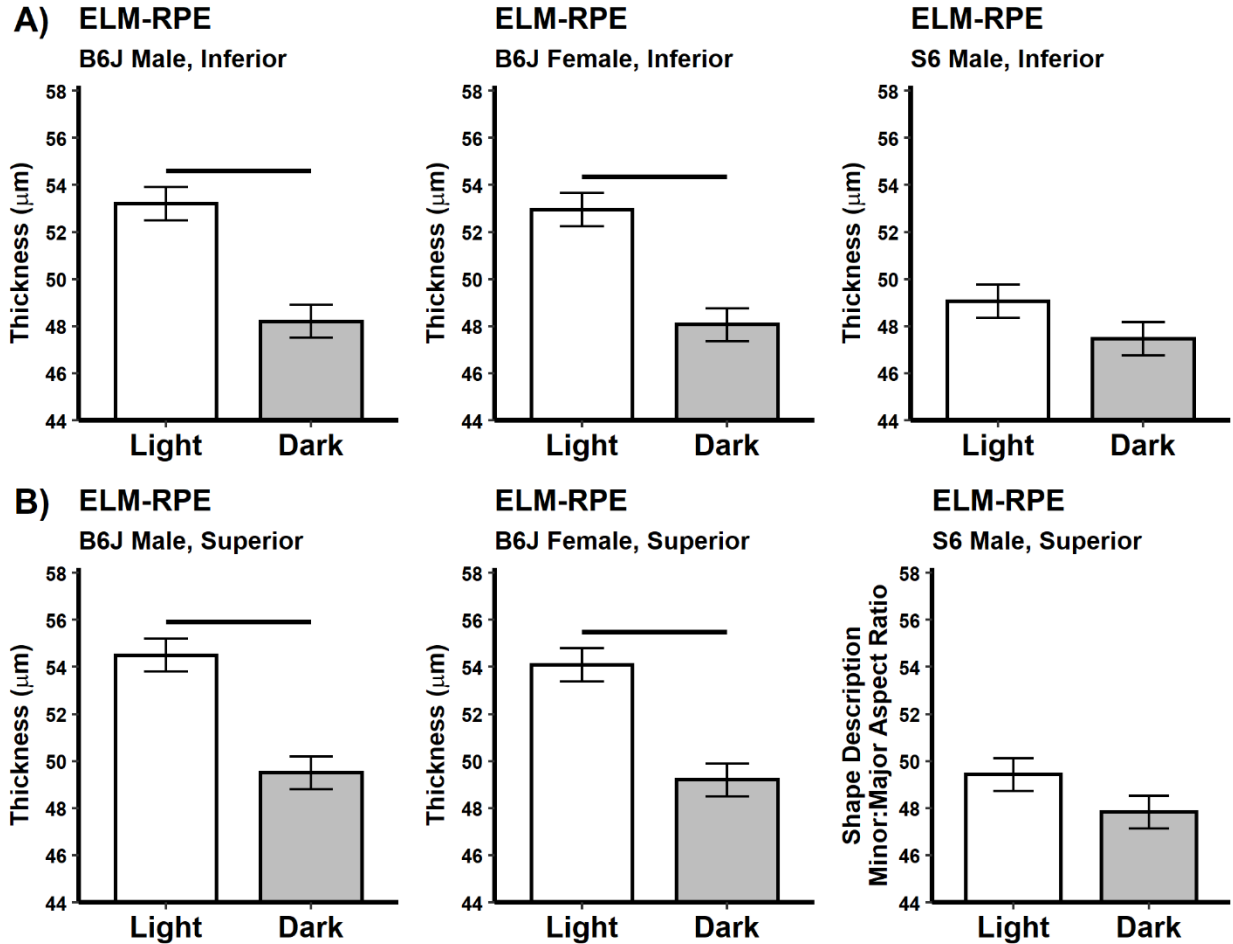


Supplementary Data

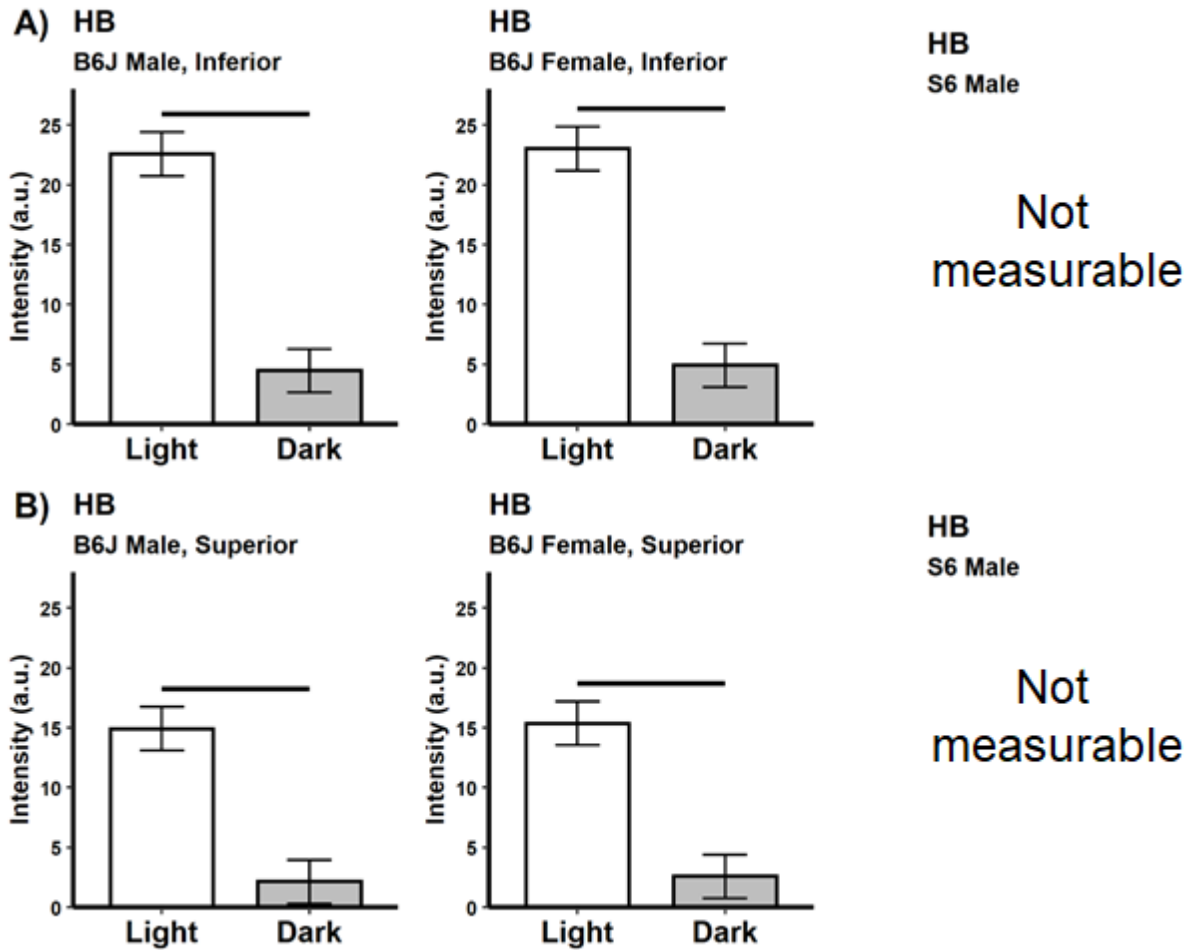
Supplementary Figure S1: Full data set showing that higher energy demands in the dark are associated with a higher (i.e., rounder) ISez aspect ratio profile shape than in the light. Summary of B6J and S6 ISez for light vs. dark male and female mice on the A) inferior and B) superior retina. C) Comparisons of B6J and S6 ISez for light (left panel) and dark (right panel) male mice. All groups n's = 5, mean \pm 95% CI, black horizontal bar: $p < 0.05$.



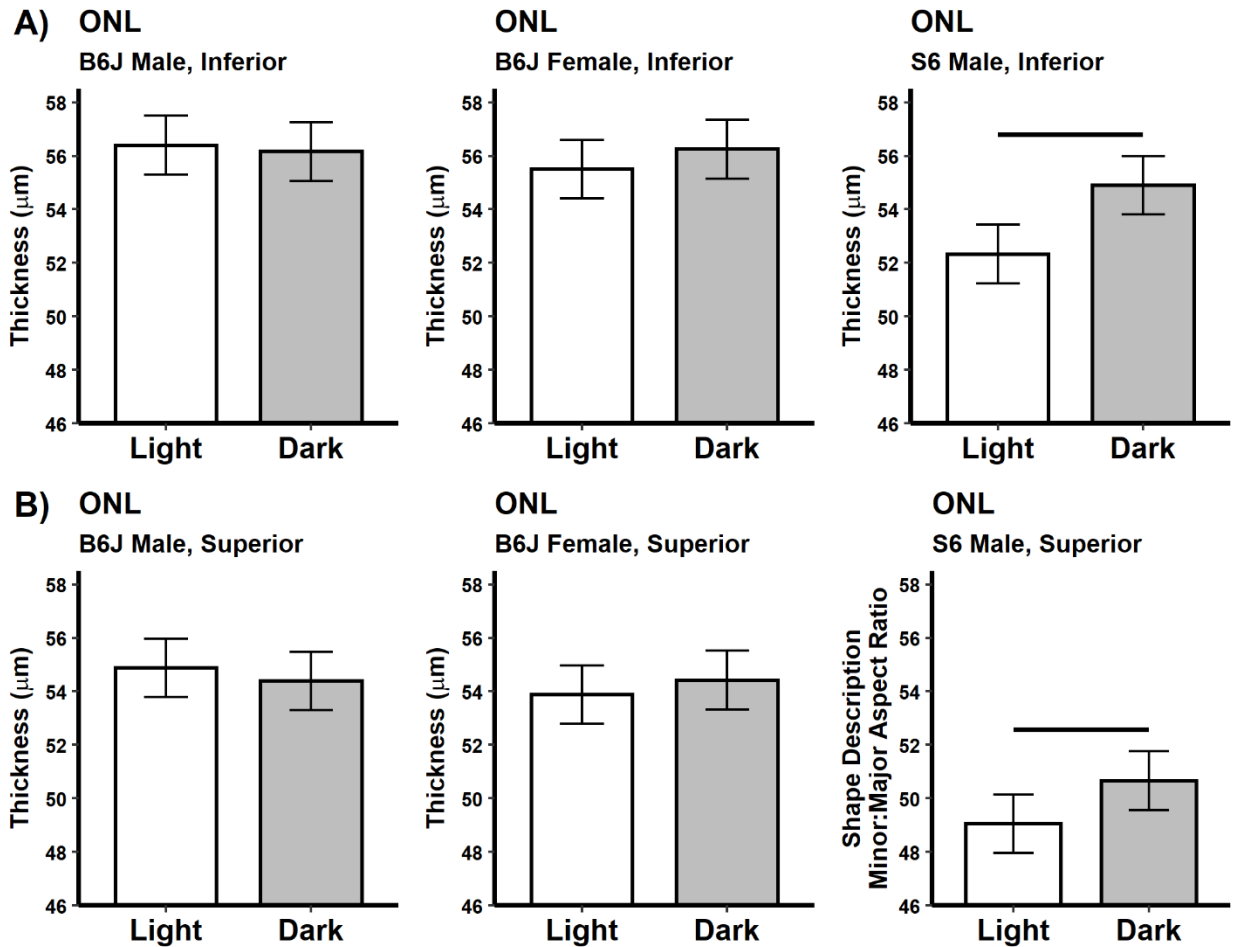
Supplementary Figure S2: Full data set showing higher energy demands in the dark are associated with a thinner ELM-RPE than in the light. Summary of B6J and S6 ELM-RPE thickness for light vs. dark male and female mice on the A) inferior and B) superior retina. All groups n's = 5, mean \pm 95% CI, black horizontal bar: p < 0.05.



Supplementary Figure S3: Full data set showing higher energy demands in the dark are associated with a smaller magnitude of the hyporeflective band signal intensity than in the light.¹⁷⁻²⁰ Summary of magnitude of the hyporeflective band signal intensity for light vs. dark in male B6J mice on the A) inferior and B) superior retina. All groups n's = 5, mean \pm 95% CI, black horizontal bar: p < 0.05. B) Data for S6 mice is not shown because the magnitude of their hyporeflective band signal intensity is too small to measure (i.e., undetectable), consistent with a higher mitochondria efficiency in this strain vs. that in B6J mice.



Supplementary Figure S4: Full data set summarizing outer nuclear layer (ONL) thickness for light vs. dark male and female B6J and S6 mice on the A) inferior and B) superior retina. More work is needed to understand why the ONL thickness changed between light and dark in the S6 mice but not in the B6J mice. All groups n's = 5, mean \pm 95% CI, black horizontal bar: $p < 0.05$.



Supplementary Figure S5: Full data set summarizing the thickness of the [inner nuclear layer (INL) + outer plexiform layer (OPL)] for light vs. dark male and female B6J and S6 mice on the A) inferior and B) superior retina. More work is needed to understand why the INL+OPL thickness changed between light and dark in the S6 mice but not in the B6J mice. All groups n's = 5, mean \pm 95% CI, black horizontal bar: p < 0.05

