Resources

Methods: RPE cell culture (lines, primaries), purification of POS from porcine eyes, *in vitro* phagocytosis assays, *in vivo* assessment of the RPE phagocytic rhythm, *in vivo* retinal adhesion, blood-retinal barrier and epithelial phenotype of RPE cells (polarization, presence of tight junctions, measure of transepithelial resistance, …), *in vivo* evaluation of the effect of molecules (anti-oxidants, …) on an aging model of the RPE.

Models: RPE and macrophage cell lines, primary cultures of mouse and rat RPE cells (normal and mutants), RCS rat (retinitis pigmentosa model, no RPE phagocytosis), beta5 integrin knockout mouse (AMD-like model with loss of vision and oxidative stress accumulation, arrhythmic phagocytosis).

Detailed protocol: we published a detailed method for the purification of photoreceptor outer segments on a large scale, that can be later used for various types of phagocytic assays and related studies of RPE function (http://www.jove.com/video/52100/large-scale-purification-porcine-or-bovine-photoreceptor-outer)