Supplementary Figure 1: LOX and GFAP expression in retina and choroid after laser

To correlate the LOX expression pattern with retinal glial cells, double immunofluorescent staining was performed at 35 days after laser. (A) LOX immunofluorescent expression pattern (green) co-localized to a sub-population of glial cells (GFAP; red). LOX and GFAP were both expressed in the inner (IPL) and outer plexiform layers (OPL) of the retina and in the disrupted choroid and sclera of the region of the laser-induced injury (merge, indicated by arrows). (B) Importantly, a subset of cells in the laser-spot was positively stained for LOX (green, arrows), but not for GFAP (red). RGC: retinal ganglion cell layer – IPL: inner plexiform layer – INL: inner nuclear layer – OPL: outer plexiform layer – ONL: outer nuclear layer.
Supplementary figure 2: Chromogenic in situ hybridization for LOXL2 expression in the diseased retina

To determine LOXL2 mRNA expression in the diseased retina at postoperative day 35, red chromogenic in situ hybridization (CISH) was performed. (A) Red chromogenic in situ hybridization (CISH, red signals) showed expression of LOXL2 mRNA in a subset of cells in the inner and outer nuclear and ganglion cell layers in the diseased retina (white arrows) as well as in fibroblast-like cells in the injured sclera (blue arrows). (B) Negative control probes did not show any CISH signal. RGC: retinal ganglion cells layer – IPL: inner plexiform layer
Supplementary figure 3: Time course fibrosis in CNV-model

Sirius Red staining was performed after laser induction of CNV in mice to identify the peak of fibrosis. Analysis on different time points after lasering showed a gradual increase in collagen deposition with time (n=5 mice/time point).