Supplementary Fig. 1 qPCR comparison of gene expression levels in the OF with those in the central OC. (numbers on the top of each column are p-values for the gene)

Supplementary Fig. 2 The expression patterns of presumptive microglia genes and POM genes.

(A). Confocal image of Iba-1 immunostaining. (B-G). Confocal images of FISH signals of presumptive microglia genes- *C1qc*, *Ctss*, *C1qb*, *Laptm5*, *Cx3cr1*, and a presumptive POM gene- *Col3a1*. The scale bar in D is 50μm and applies to A-F, and the scale bar in G is also 50μm.
Supplementary Fig. 3 ISH of known OF closure regulatory genes in control and \( afap1l2 \)-morphant eyes (36 hpf).

Supplementary Fig. 4 Eye images of control, \( afap1l2 \)-MO injected, \( pax2a \)-MO injected, and \( afap1l2 \)-MO/\( pax2a \)-MO co-injected zebrafish at 72 hpf.

Supplementary Fig. 5 ISH of \( shha \) and \( ptch1 \) in control and \( afap1l2 \)-morphant eyes (36 hpf).