

ZO1 *sws1*: GFP

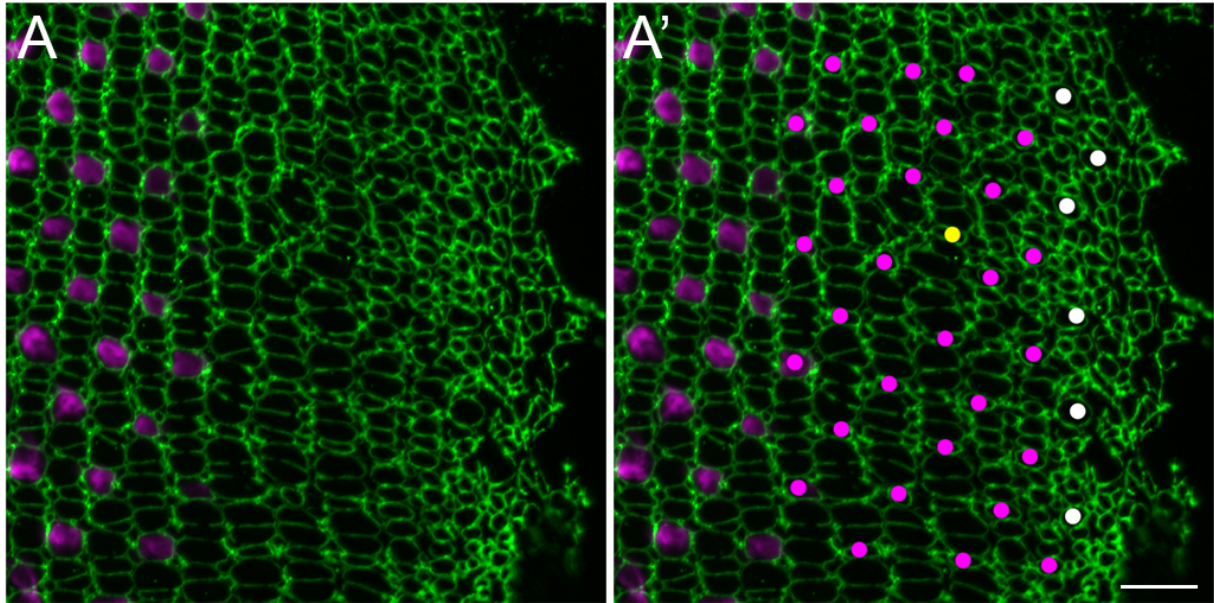


Figure S2

Figure S2. Immature UV cones have rounded apical profiles in the pre-column area.

(A, A') Retinal flat-mount immunocytochemistry for ZO1 (green) in a juvenile transgenic zebrafish with the UV cone reporter, *Tg(sws1:EGFP)* (magenta). The onset of *sws1* opsin transgene expression is delayed in the differentiating UV cones until after the organization of cone columns. (A') The precision of the mosaic pattern allows profiles that are *Tg(sws1:EGFP)*-negative to be identified as UV cones (magenta dots), and the position and shape of the large rounded profiles in the pre-column zone (white dots) suggests that these, too, are differentiating UV cones. Note the appearance of a new row and column (yellow dot) in this region, a pattern defect called a 'Y-junction' [1], which is analogous to an edge dislocation in crystals grown on curved surfaces and is required to accommodate the increased perimeter with continued retinal growth. Scale bar: 10 μ m.

1. Nishiwaki Y, Oishi T, Tokunaga F, Morita T. Three-dimensional reconstitution of cone arrangement on the spherical surface of the retina in the medaka eyes. *Zool Sci.* 1997;14(5):795-801. <http://dx.doi.org/10.2108/zsj.14.795>