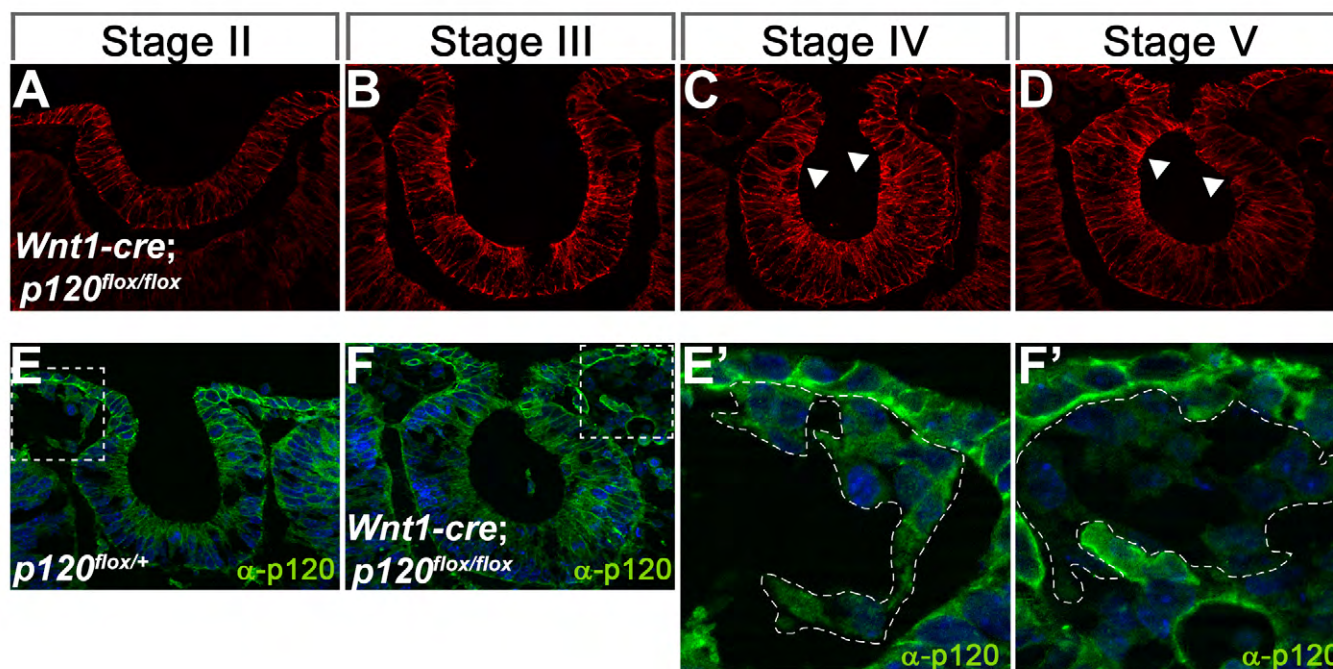
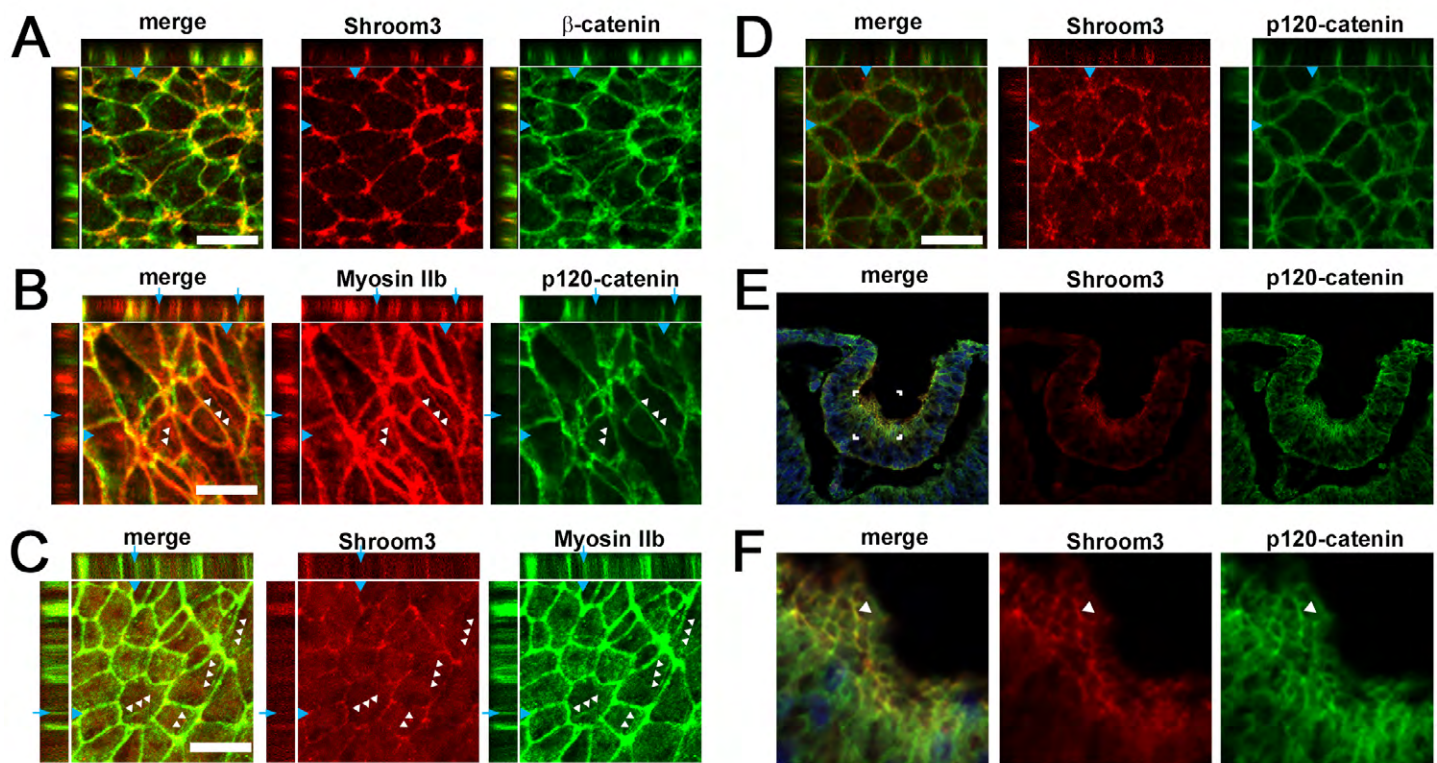


**Figure S1. Curvature data for (x,y) coordinates.** (A) Representation of all apical curvature values generated from the (x,y) coordinates of 6-8 central lens pit sections from the indicated genotype. The black line in each graph represents a 6th order polynomial trendline. (B) Comparison of the trendlines generated in (A) were placed on the same graph with an expanded y axis. The brackets indicate curvature values used for the quantification and statistical analysis for Figure 4C, and the asterisks represent a significant difference compared with the control genotype.



**Figure S2. Mesenchymal deletion of p120-catenin does not affect lens pit morphogenesis.** (A-D) Cryosectioned E10.5 mouse embryo eyes (stages II-V) deficient for p120-catenin in the mesenchyme during lens pit invagination were immunolabeled with a  $\beta$ -catenin (red). Note the formation of the lens pit hinge-points in C and D (white arrowheads). (E-F) Control or p120-catenin mesenchymal deficient eyes were immunolabeled with p120 catenin (green) and Hoeschst (blue). The white dashed square is magnified in the left panels (E',F'). Ocular mesenchyme is outlined to highlight the presence (E') or absence (F') of p120-catenin labeling.



**Figure S3. Shroom3 and p120-catenin localization in the lens placode and lens pit.** (A-D) Representative *en face* view of immuno-labeled lens placodes utilizing the indicated antibodies. White arrowheads and colored arrows indicate the location of myosin filaments. (E-F) Lens pit colabeled with Shroom3 and p120-catenin at lower (E) and higher magnification (F). Scalebars: 5  $\mu$ m.