

Supplementary Information

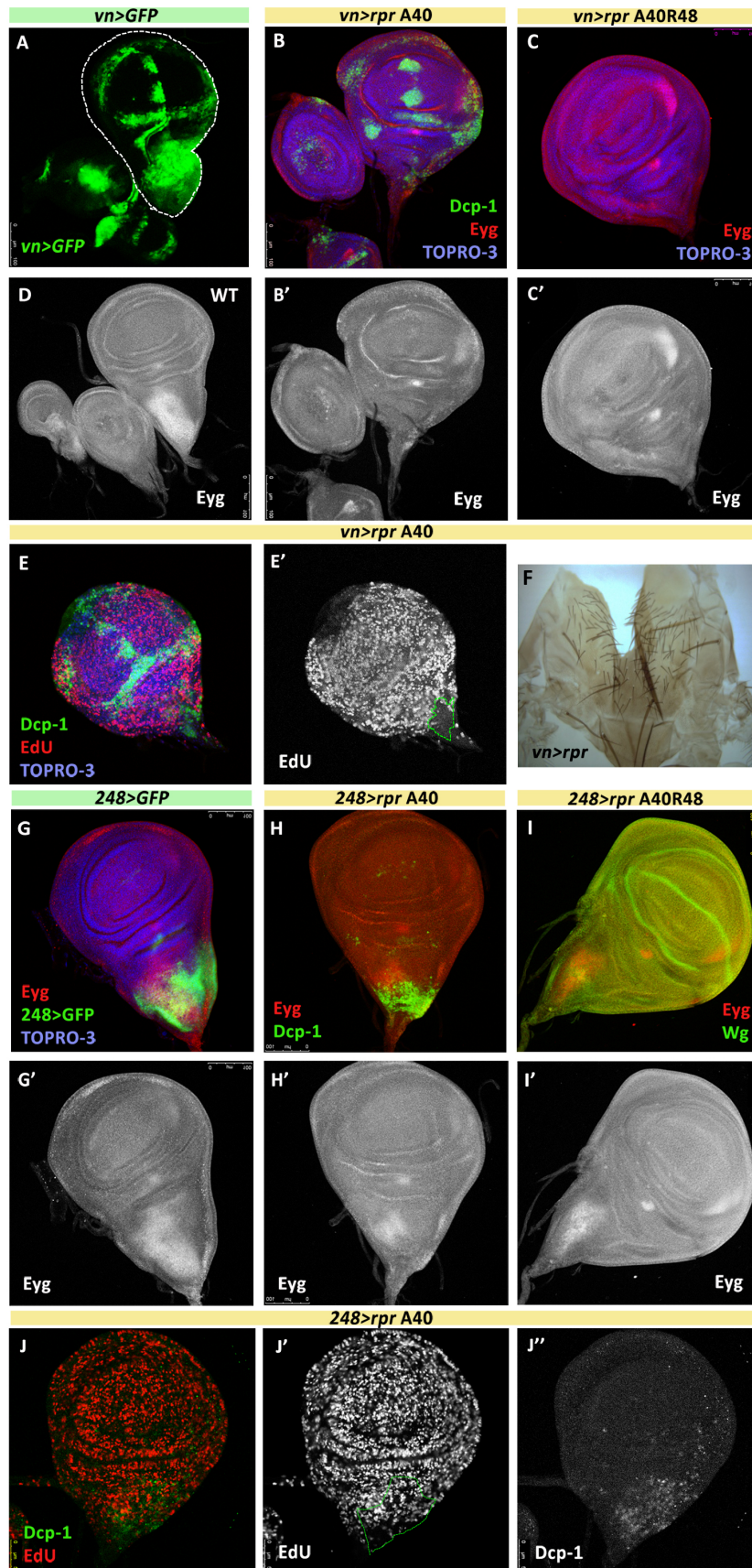


FIGURE S1

Figure S1. Ablation of the Vn and 248 domains. (A) GFP staining marks the Vn domain, which covers most of the notum and some cells of the hinge and the wing. (B, B') The absence of *Eyg* expression in the notum of ablated discs indicates that the notum region has been almost completely eliminated after 40 hrs of *rpr* expression. At the end of the ablation period, *Dcp-1* levels are still detected in cells of the hinge and the wing (B). (C, C') The absence of *Eyg* label in the notum confirms that the ablated area has not been regenerated even after 48 hrs of recovery. (E, E') EdU incorporation is uniform in the wing disc, even in the cells close to the ablated area. The dashed green line delimits the ablated region of the notum. (F) Abnormal thorax of an adult fly emerging from *vn>rpr* larvae subjected to 40 hrs of ablation. Note that part of the lateral notum is missing compared to a WT fly (see Figure 2F). (G, G') GFP labels the domain in a control disc. The *Eyg* protein is visualized in red. (H, H') The significant reduction of *Eyg* levels in ablated discs indicates that a large part of the notum has been eliminated after 40 hrs of *rpr* expression in the 248 region. *Dcp-1* is expressed in remaining dying cells of ablated discs. (I, I') The *Eyg* and *Wg* expression in ablated discs after 48 hrs of recovery suggests that regeneration of the 248 damaged area did not occur after the recovery period. (J-J'') EdU incorporation in *248>rpr* ablated discs at the end of the ablation period.

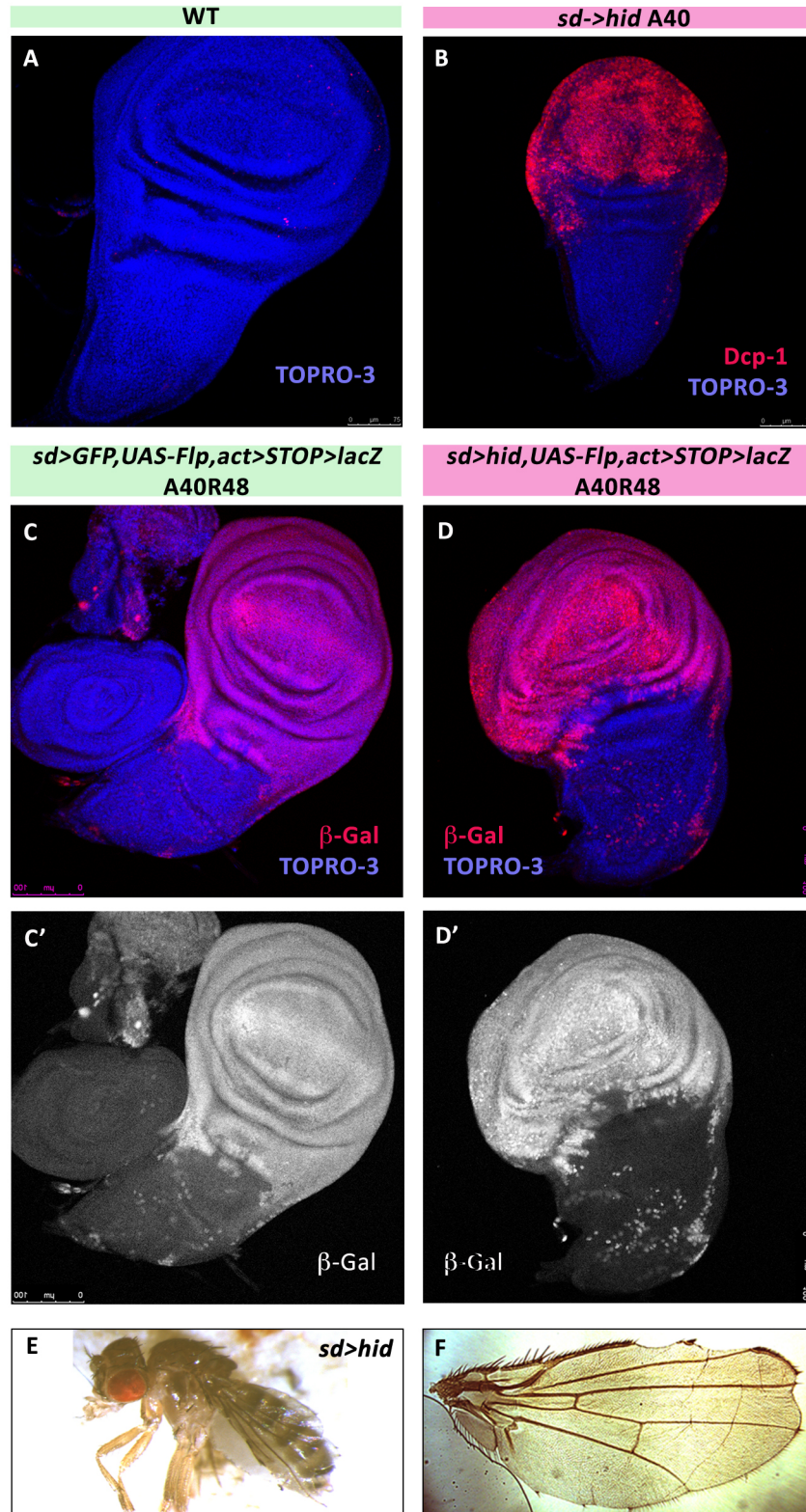


FIGURE S2

Figure S2. *hid*-induced ablation of the Sd domain. (B) Dcp-1 staining of *sd>hid* ablated disc which shows lots of cells undergoing apoptosis. The size of the ablated disc is smaller than the WT disc (A), although the general morphology is conserved after the ablation period. (C-D') Tracking of the progeny of ablated cells in *sd>GFP* and *sd>rpr* cells fixed after 2 days of recovery. (E) Adult fly emerging from a 40 hrs-ablated *sd>hid* larvae. (F) Detail of the wing of an experimental fly with identical genotype as the one shown in panel E.

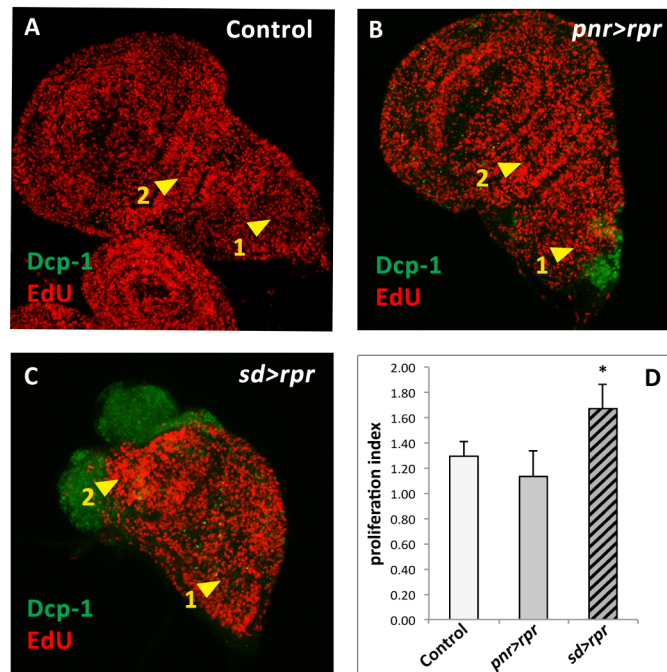


FIGURE S3

Figure S3. Quantification of the proliferation levels in the notum and the wing in response to ablation. Comparison of levels of EdU incorporation (red) in wildtype (A), *pnr>rpr* (B) and *sd>rpr* (C) discs. The region 1 in A, B, and C corresponds to the notum area, whereas the region 2 corresponds to a zone at the border between notum and wing appendage. Note that EdU incorporation levels in region 1 in are similar in wildtype (A) and *pnr>rpr* (B) discs, indicating that the ablation of the Pnr domain (green) does not significantly affect cell proliferation in the zone close to the ablated area. The disc in C shows augmented EdU label in region 2 in comparison with region 1. The area of high proliferation is adjacent to the ablated appendage. The histogram in D shows a quantification of the ratio of EdU incorporation of regions 2 and 1. Note the increased relative 2/1 EdU levels in *sd>rpr* discs (asterisk) with respect to control. (Control, n=2; *pnr>rpr*, n=8; *sd>rpr*, n=7 discs).

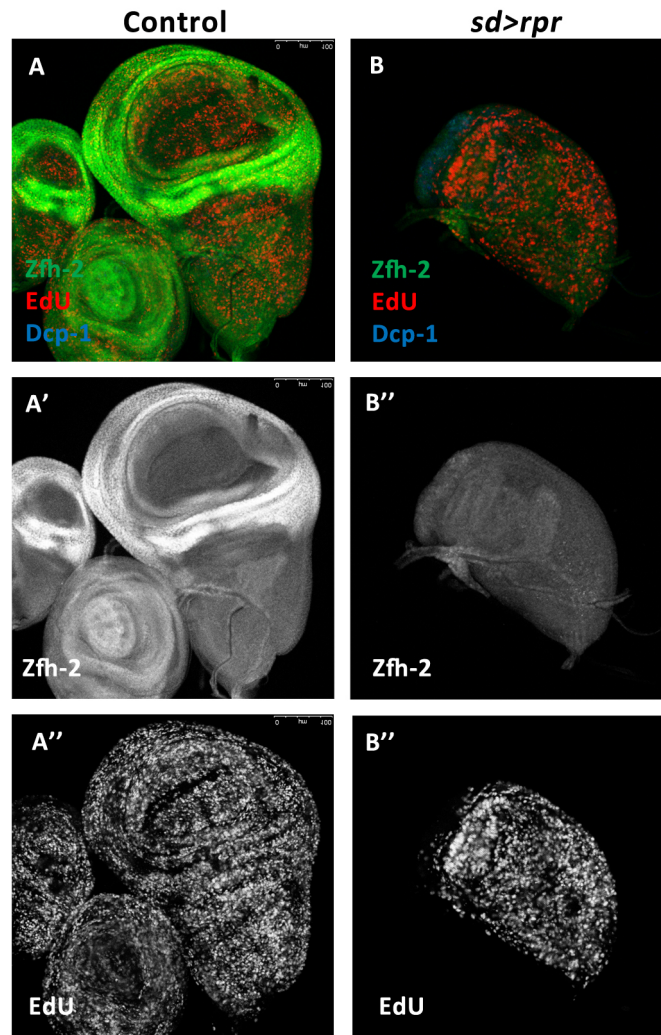


FIGURE S4

Figure S4. Identity of over-proliferating cells in *sd>rpr* discs.

EdU incorporation levels in control (A-A'') and *sd>rpr* (B) discs. The expression of the marker Zfh2 (green) identifies cells of hinge identity, as indicated in A. In the *sd>rpr* (B-B'') disc the area expressing Zfh2 is much diminished and mainly comprises dying cells. The over-proliferating cells, which contain higher EdU label (red), do not express Zfh2, indicating that they are not hinge but notum cells.