

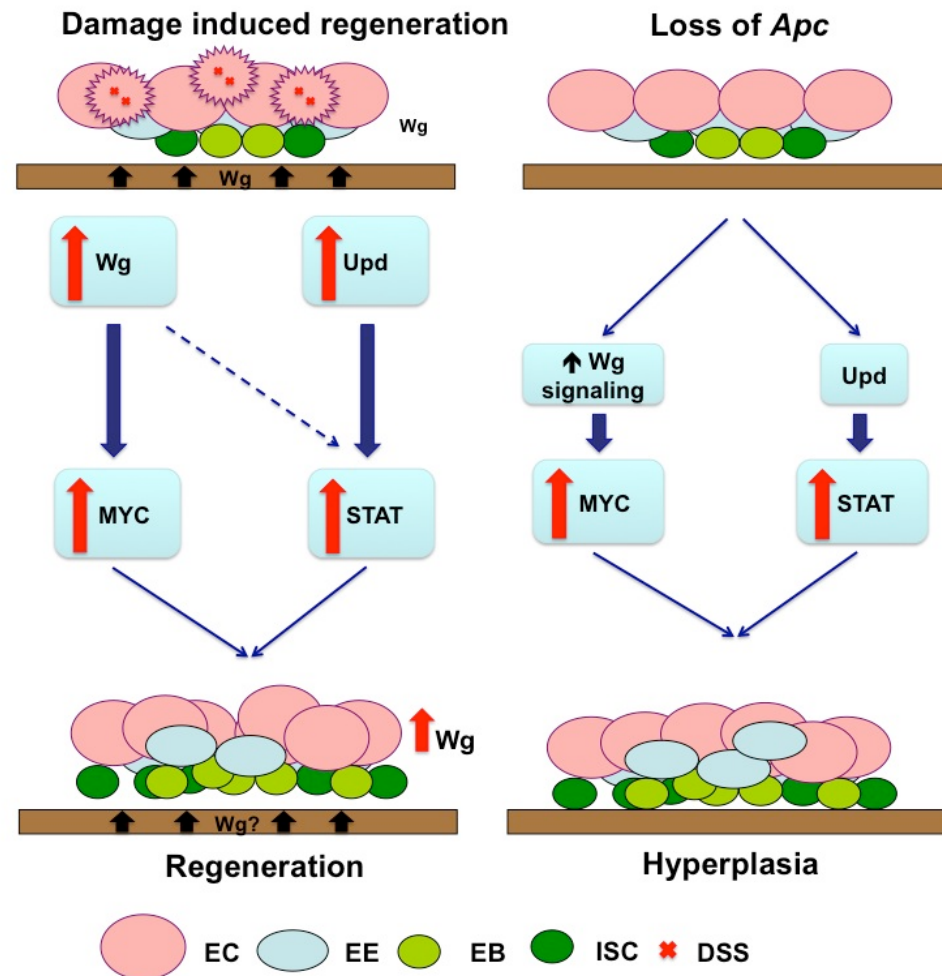


Figure 1: Schematic model summarizing our results. DSS treatment causes damage, which results in Wg up-regulation within the intestinal epithelium and the activation of Wnt and Jak/Stat signalling. Both pathways are required to induce ISC proliferation in order to regenerate. Coupled to this we show that epithelial Wg but not muscle Wg is required for this response. In the case of *Apc1* loss we also show that activation of Myc and Jak/Stat signalling downstream of *Apc1* leads to hyperplasia of the intestinal epithelium. EC: Enterocytes; EE: enteroendocrine; EB: enteroblasts; ISC: Intestinal Stem Cells; DSS: Dextran Sodium Sulfate