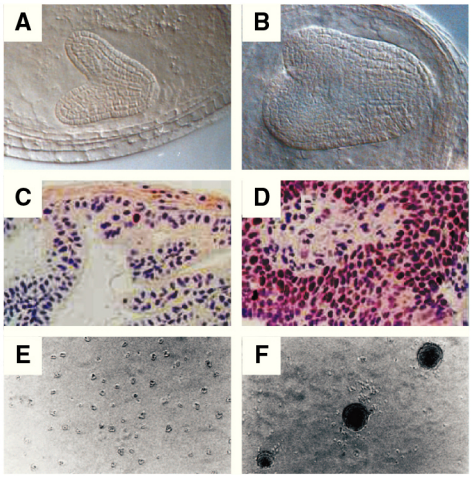

Figure 9. PRC2 regulates cell proliferation in mammals and plants. (*A,B*) Plant embryos derived from wild-type and *mea* mutant egg cells. *MEA* encodes a protein of the FIS-PRC2 and regulates cell proliferation. The *mea* embryo (*B*) is much larger than the corresponding wild-type embryo (*A*) at the same stage of development (late heart stage). Mutant embryos develop slower and have approximately twice the number of cell layers. (*C,D*) Normal and cancerous prostate epithelium of mice. In the cancerous epithelium, Ezh2 expression is highly increased (labeled with an anti-Ezh2 antibody). Thus, both loss of E(Z) function in plants and overexpression of E(Z) function in mice can lead to defects in cell proliferation. (*E,F*) Control and RING1 overexpressing rat 1a fibroblast cells. Overexpression of RING1 leads to anchorage-independent growth in soft agar, typical of neoplastically transformed cells. (*A,B*, Courtesy of J.-P. Vielle-Calzada and U. Grossniklaus; *C,D*, reprinted, with permission, from Kuzmichev et al. 2005, © National Academy of Sciences; *E,F*, reprinted, with permission, from Satijn and Otte 1999, © American Society for Microbiology.)