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Effect of *Polycomb* group mutants on the expression of  
*Ultrabithorax* in the visceral mesoderm of the *Drosophila*

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The *Polycomb* (*Pc*) group genes encode repressors that restrict expression of homeotic genes to precise domains along the anterior-posterior (A-P) axis. We present how three of *Pc*-group mutants, *Polycomb*, *extra sex comb(esc)* and *pleiohomeoitec (pho)* genes, affect the expression of the *Ultrabithorax(Ubx)* in the visceral mesoderm. *Ubx* is normally expressed in the visceral mesoderm of PS7 and involved in gut morphogenesis. We made fly stocks containing *Ubx<sup>lacZ</sup>* and the *Pc*-group mutants. Zygotic embryos from *Pc* and embryos showing maternal effects of *esc* and *pho* were used to see the expression of  $\beta$ -galactosidase using X-gal and anti- $\beta$ -gal antibody. *pho* maternal effect mutant showed very weak ectopic expression. However, *Pc* zygotic mutant and *esc* maternal effect mutant showed strong homeotic transformation. This indicates that *Pc* group genes act as a repressors to maintain precise domain of *Ubx* expression in the visceral mesoderm.