

P2

**Comparing the Segmentation Process between Long Germ and Short Germ Insects:
a New Gene Provides New Insights**

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The genetical tools available in the beetle *Tribolium*, together with the completed genome project allow now to repeat the series of experiments that have led to the current knowledge of the segmentation gene interactions in *Drosophila*. Using pupal RNAi, one can knock down almost any gene function in early embryos and test the effects on the expression of all possible target genes. Furthermore, reporter gene analysis can be used to study the specific function of enhancers, both from and in *Tribolium* and *Drosophila*. The talk will focus on the segmentation genes, as well as their cross regulatory interactions. We find that some key features of the interactions are conserved between the two species, although there are interesting deviations. During an EST expression screen, we have identified a new segmentation gene in *Tribolium*, which has a completely novel gene structure. The implications for understanding the segmentation process and cellular physiology will be discussed.