

P042 The 5'-3' exoribonuclease *pacman* and its role in wound healing
Melanie J. Sullivan, Maria V. Zabolotskaya,
Helen L. Glenwright and Sarah F. Newbury
*Institute of Cell and Molecular Biosciences, University of
Newcastle, Newcastle, UK*

The *Drosophila* gene *pacman* encodes a 5'-3' exoribonuclease, which is highly homologous to a yeast exoribonuclease *XRN1*. The *pacman* mutant flies have defects on their thorax, where the two halves of the thorax have not joined correctly along the dorsal midline during development. This morphogenetic event is known as thoracic closure. These phenotypes suggest *pacman* may have a role in controlling cell adhesions or cell shape changes.

The thorax phenotypes in *pacman* mutants closely resemble those observed in flies mutant for genes of the highly conserved JNK signalling pathway, for example *hemipterous* (JNKK), *basket* (JNK) and *kayak* (Dfos). The JNK signalling pathway is known to regulate morphological process such as dorsal closure during *Drosophila* embryo development. Currently we are investigating the role of *pacman* in regulating the JNK signalling pathway.

There are similarities between dorsal closure and thoracic closure and other morphological processes such as ventral enclosure in *C.elegans* and wound healing in human cells. Therefore we are also investigating the effect of *pacman* on wound healing.