

Biology 155a
Project Laboratory in Genetics and Genomics
Writing Assignment 4

Reading a Research Paper 2

Here are six research papers. Each one describes transvection at a particular locus. You will be assigned one of these three papers.

- Castelli-Gair et al. 1990. Transvection in the *Drosophila Ultrabithorax* gene: A *Cbx¹* mutant allele induces ectopic expression of a normal allele in *trans*. *Genetics* 126: 177-184.
- Coulthard et al. 2005. Transvection at the *vestigial* locus of *Drosophila melanogaster*. *Genetics* 170: 1711-1721.
- Flores et al. 1998. Lozenge is expressed in pluripotent precursor cells and patterns multiple cell types in the *Drosophila* eye through the control of cell-specific transcription factors. *Development* 125: 3681-3687.
- Leiserson et al. 1994. Transvection at the *eyes absent* Gene of *Drosophila*. *Genetics* 138: 1171-1179.
- Geyer et al. 1990. Tissue-specific enhancer may act in *trans* on the gene located in the homologous chromosome: the molecular basis of transvection in *Drosophila*. *EMBO J* 9: 2247-2256.
- Jack and Judd. 1979. Allelic pairing and gene regulation: A model for the *zeste-white* interaction in *Drosophila melanogaster*. *PNAS* 76: 1368-1372.

Please read your assigned paper and again answer the following questions –

- What are the authors studying?
- What is the question the authors are asking?
- Do the authors state a hypothesis? If so, what is it?
- What are the main results of the paper?
- What are the authors' main conclusions?

Again, use the handout, “Reading a Scientific Paper” if you find it helpful.

Please write a brief answer to each of these questions and also be prepared to share the answers to your questions with the rest of the class.