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Gene clusters in the fly genome

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A number of studies have provided convincing evidence that co-expressed genes are often found in clusters in the yeast, fly, worm or human genomes. In the December 12 *Nature* Boutanaev *et al.* describe additional examples of clustering of *Drosophila* genes (*Nature* 2002, **420**:666-669). Analysis of available databases of expressed sequence tags (ESTs) identified 4,271 genes expressed in the testes, of which 1,661 appear to be testis-specific. Mapping each EST to the fly genome revealed that about one third of testis-specific genes are clustered; many of these clusters (45%) contain four or more genes. A notable exception was chromosome X, which showed little clustering of testis-specific genes and smaller cluster sizes. Additional EST-based analysis also showed clusters of head-specific genes and embryonic genes. Much remains to be discovered about the role of chromatin structure in the transcriptional regulation of genome clusters.

References

1. A computational analysis of whole-genome expression data reveals chromosomal domains of gene expression.
2. Evidence for large domains of similarly expressed genes in the *Drosophila* genome.
3. Chromosomal clustering of muscle-expressed genes in *Caenorhabditis elegans*.
4. The human transcriptome map: clustering of highly expressed genes in chromosomal domains.
5. *Nature*, [<http://www.nature.com>]