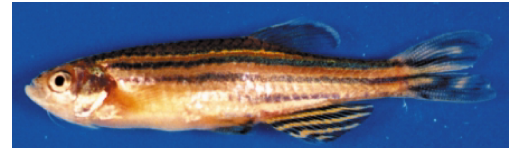


## MCB 157: Developmental Genetics and Genomics



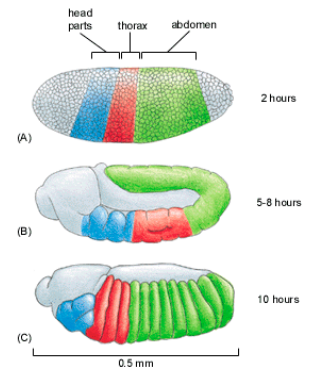
Professor Craig P. Hunter  
Meeting Time: Tu., Th., 2:30-4 PM  
Location: Biolabs 2080/2082  
Prerequisite: LS1b



**MCB 157: Developmental Genetics and Genomics** is the reincarnation of **MCB150** as taught by Professor Hunter from 2000-2005.

**The focus of this class** is the genetic and genomic analysis of developmental processes in four genetically accessible animal models; the nematode *C. elegans*, the fruit fly *Drosophila melanogaster*, the zebra fish *Danio rerio*, and the mouse *Mus musculus*. In this course we compare and contrast genetic analysis of and the genetic control of development in these four organisms.

Genetics is the language of development and **the goal of this class** is for you to gain a fundamental understanding of genetic control of development. You will learn and use a substantial number of genetic concepts, methods, and mechanisms as we read, discuss, and write about seminal findings in contemporary developmental genetics. It is my intention to provide the tools for each of you to delve into any of these or similar topics in greater detail. And you will get that opportunity in lieu of a final exam by writing a short comprehensive paper on a topic of your choice in developmental biology.



The format of the class is alternating lectures and sections. The lectures provide background on the organisms, systems, and questions. These lectures will be followed by class discussion of both lecture material as well as classic and recent journal articles. These sessions are primarily designed to **enhance your critical reading skills** and provide an opportunity to practice logical organization and verbal presentation of scientific data and conclusions. A series of critically and constructively graded written assignments will assist in the development of these skills. These include five half-page papers modeled on professional reviews of manuscripts submitted for publication and two one-page reports that provide additional practice for the final paper.

