

MOLECULAR BIOLOGY AND BIOCHEMISTRY

MBB 444-3

Developmental Neurobiology

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| Description/topics: | This course will focus on the process of axonal guidance. In particular, how both attractive and repulsive guidance cues steer axons to their targets during development. We will begin with a discussion of classical experiments, then focus on recent studies from vertebrates, <i>Drosophila</i> and <i>C. elegans</i> , in which a combination of genetic, biochemical and molecular approaches have led to the identification of conserved families of guidance cues. Also to be covered, is how the reception of a guidance cue influences the cytoskeleton within the growth cone during axon pathfinding. |
| Grading: | 20% Class participation 25% Midterm 20% Oral presentation 35% Final term paper |
| Required texts: | None; material to be covered will be drawn directly from primary literature. |
| Recommended texts: | <u>Developmental Biology</u> , 6th edition. 2000. Scott Gilbert or <u>Principles of Developmental Biology</u> , 1st edition. 2003. Fred H. Wilt and Sarah C. Hake. W.W. Norton & Company, Inc. New York, USA. |
| Materials/supplies: | None. |
| Prerequisite/corequisite: | Prerequisites: MBB331 (or BISC331) Recommended: BISC 333 |
| Notes: | None. |

"Students requiring accommodations as a result of a disability, must contact the Centre for Students with Disabilities (778-782-3112 or e-mail: csdo@sfu.ca).

Students wanting to miss a class or exam in order to observe a holy day for their religion may do so without penalty, but must make a written request for accommodation to the instructor during the first week of classes."

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