Department: Biology  
Supervising Faculty Member: Christopher Deppmann  
Specialization: Developmental neuroscience  

Research Focus: Our research centers on understanding the molecular basis by which the nervous system is sculpted during development. We use a combination of genetic, biochemical, and mathematical modeling techniques to determine how competition defines proper cell number and synaptic connectivity. We are also interested in how these competitive developmental programs that are used to assemble the nervous system might be exploited by pathologies such as Alzheimer’s and Lou Gerhig’s Disease to disassemble the nervous system.

Job Description: PLEASE NOTE THIS POSITION IS OPEN TO ENTERING FIRST-YEAR STUDENTS ONLY. After learning the basic tasks of what makes a lab work which includes washing glassware, autoclaving, making solutions cell culture techniques, student will be assigned to work on project with a graduate student becoming part of the team. Students will learn how to use imaging and graphic software packages used in the lab.

Required Skills/Knowledge: Understanding what molarity is. Knowledge of how to make dilutions. Understanding chemical safety. Students should have some knowledge of Google Docs or Microsoft Office. Students should demonstrate a strong commitment to this research experience in their cover letter; students should be prepared to balance their other coursework with a challenging work experience in a lab setting. Students are expected to be responsive in all communications related to the lab.

Required Courses: Introduction to Biology or its equivalent (high school transfer credit acceptable)

Training: The student selected for this position will need to complete the on-line chemical safety training course before they begin working in the lab. Students will complete additional training modules in animal handling and biosafety after they begin working in the lab.

What You Will Learn: Through this research-work opportunity, you will: 1) learn basic laboratory techniques related to developmental neuroscience; 2) develop a relationship with the scientific literature as it relates to the project; and 3) independently design and execute an experiment.

Suggested Reading:

