

Course Description

Bi/CNS 270 –

Title: "Genetic Dissection of Neural Circuit Function"

Thurs 3-6 PM 151 Braun

This advanced course will discuss the emerging science of neural "circuit breaking" through the application of molecular genetic tools. These include optogenetic and pharmacogenetic manipulations of neuronal activity, genetically based tracing of neuronal connectivity and genetically based indicators of neuronal activity. Both viral and transgenic approaches will be covered, and examples will be drawn from both the invertebrate and vertebrate literature. Interested students who have little or no familiarity with molecular biology will be supplied with necessary background information. Lectures and student presentations from the current literature.

Pre-requisites: Bi150 or permission of the instructor.