Undergraduate Summer Research Course at
Dept of Molecular, Cellular, & Developmental Biology
University of California, Santa Barbara

MCDB 161L: Research Immersion in Molecular Biosciences

Developed as part of the UCSB-HHMI initiative, this is an intensive (6 unit) undergraduate laboratory course covering basic approaches to research in molecular biosciences using model systems. In addition to the laboratory techniques, students learn hypothesis building, experimental design, data analysis and interpretation, as well as presentation skills. The 6-week course (Summer Session A) is taught in three modules, each based on current interdisciplinary biomolecular and biomedical research being conducted on the UCSB campus. In each module students conduct mini-research projects under the guidance of faculty and postdoctoral scholars. The goal of the course is to prepare students for independent research in biomedical laboratories at UCSB and elsewhere.

Building and rebuilding tissues in ascidians

Immunostained head of a transgenic late tailbud stage Ciona embryo (left) and metamorphosed sessile adult pseudo-colored to highlight the siphons (right).

Inflammatory signaling during fusion/rejection events

Differential fluorescent labeling of two Botryllus schlosseri colonies prior to vascular fusion

Regulation of cell proliferation and death in C. elegans

A. C. elegans germline and embryos expressing membrane targeted GFP and nuclear mCherry; B. Extensive germ cell death; C. Stem cell niche extending cytonemes. Notch ligand (GFP), DAPI-stained germline precursor cells (blue).

Course Information
Course Offered: Summer Session A
June 22 – July 31, 2015
http://www.summer.ucsb.edu/

Online Application Process at
http://hhmi.mcdb.ucsb.edu

MTWR 9:00 AM -3:00 PM
Final Presentations: Friday, July 31
6 units
Major applicable (check with advisor)

Course Coordinator:
Professor Stephen Poole
Dept of Molecular, Cellular, and Developmental Biology
University of California, Santa Barbara

For more information or questions about the course, please contact:
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Research Instructors:

Dr. Heidi Morales Diaz
Professor William Smith Lab

Dr. Scott Boyer
Professor Tony DeTomaso Lab

Dr. Pradeep Joshi
Professor Joel Rothman Lab

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