Research Opportunities

Description
Research

Biology is a discipline based on empirical research. Being engaged in research activities can be exhilarating and may be the reason you sought out a Biology degree. Research experience is also a major factor in becoming competitive for positions in the industry, for applications to graduate school, and for the future career of graduate students. The Division of Biological Sciences and the greater UCSD community has several ways for students to become engaged in research at all levels, and programs for all groups to access and afford such research opportunities.

RESEARCH IN TIMES OF COVID: THERE ARE OPTIONS

The Division of Biological Sciences is planning ways for students to catch up on laboratory practice and research activities that have been limited during the pandemic. In the meantime, Research for Academic Credit can be a way of getting involved in research and gaining experience even during Covid-times.

Laboratories have typically presented students with three ways of becoming involved:

- Volunteer in a laboratory
- Research Assistant
- BILD 99/BISP 199/BISP 193

During these times, BILD 99 and BISP 199 may provide the most direct way for laboratory research experience.

To enroll and complete BILD 99, BISP 199 or BISP 193, you will create and conduct an independent research project. While your project is independent, it will be in the laboratory of a faculty member and under the general umbrella of their research agenda and topics. You will earn academic credits, the number of which depends upon the extent of the research.

An independent research project may seem overwhelming but it does not have to be. There will be support and guidance, and the expectations are according to your status as an undergraduate student. Think of this as a stepping stone in developing research skills, not a doctoral dissertation.

The time commitment for the student is 3 hrs. per week per academic credit. For 4 credits, you would be working on the research project 12 hrs. per week, for two academic credits you would be dedicating 6 hrs. per week.

FOLLOW THESE STEPS:

Make Sure You Qualify

Click on the links below to check the requirements for being eligible to enroll in and receive credits for BILD 99 and BISP 199.
BILD 99: Independent Research
BISP 199: Individual Research for Undergraduates

Connect with a Faculty Member

Establish a connection with the faculty member whose laboratory you would be planning to work in. In preparation, you should gather as much knowledge about the laboratory and the research conducted there as possible. You may use their website if available and consult publications from the research of the lab.

1. You may approach faculty members whose courses you have taken. To get to know faculty members, show up to their office hours with questions, join smaller group sessions if such exist, and participate in class interactions.
2. Note that general and unspecific emails to many faculty members are unlikely to yield results. In your contact with the faculty member you would like to work with, be specific as to why you are interested in their lab and their work.
3. In your communication with the faculty member, use professional language, and fully edit your email and other documents you might be sharing. It’s always a good idea to have someone with excellent writing skills to edit and review before sending anything. The Writing Hub is also a great place to get assistance in editing and review.
4. It is to your benefit to put more efforts into proposals for three labs that are detailed, specific, and well-edited, than sending generic proposals to ten labs. Note that your proposal does not need to be fully developed here, but the faculty member should be able to clearly understand what the topic is, why you are interested, and the basic of how you will investigate the topic.
5. Do not write the email like you would write a text or other informal online comment/post. Avoid “hey”, emojis, incomplete sentences or abbreviated words.
6. Faculty are often busy and may not be able to reply to your email. In this case, you may try to see them during office hours.

Develop the Research Proposal

- A faculty member will need availability in their lab for an independent research student and your proposed research will also need to fit within the general area of research of the lab. When a faculty member has agreed to work with you, you will work with them to further develop the details of the research proposal. Use the Questions for Specialized Studies to consider what to include in preparing your research proposal for application. This form is not exhaustive but a good starting point.

Submit Your Application
• Submit the student part of the application through **EASY Request**. Submit early!
• Follow-up with the faculty member so they are aware you submitted your part and they can submit their part.

EMAILING YOUR PROFESSOR

Professional communication can seem obscure, but is an important skill to develop. Use the template below to compose an email to your professor, it will both make it more likely your communication pays off, and you will learn important skills for your future career.

*Email to Professor Template*

**HOW TO LOCATE RESEARCH OPPORTUNITIES**

**HOW TO FUND YOUR RESEARCH**

There are many ways to identify research opportunities. Your professor might notify students they have lab positions open, or positions may be posted. The most common options include:

1. Volunteer in a lab
2. [Research for academic credit](#) (BILD 99, BISP 199, BISP 193)
3. Research position in a lab
4. Programs such as [TRELS](#) and [BioScholars](#)

A great place to start searching for open lab positions is the [Real Portal](#). Many, but not all, positions are posted here. You will be able to make yourself visible to those searching for candidates by creating a profile.

Certain research assistant positions come with monetary compensation. But many other funding sources for research funding exist, with scholarships available available to both undergraduate and graduate students. Scholarships can make it possible to conduct research, including covering living expenses, and thereby facilitate the pursuit of more independent research projects.

[Summer Research Scholarships](#) provides an opportunity to be funded to focus on research outside the busy class schedule, and several provide campus housing as well as a stipend. The [CAMP](#) program is specifically oriented towards minority group in STEM.

[Academic Year Programs](#), such as the TRELS program provides support and funding during the academic year. TRELS also has a summer program.

Additionally, several [national scholarships](#) exist, several of which are aimed at research.

**FUNDING FROM UNDERGRADUATE COLLEGES**

UCSD is divided into seven undergraduate colleges. Some of these colleges offer or coordinate funding for research, conference attendance, or other academic undertakings. Some of these funding sources
are specifically aimed at students in that specific college, while all undergraduate students are eligible for others.

Revelle College
Eleanor Roosevelt College
Thurgood Marshall College

DIVISION OF BIOLOGY RESEARCH PROGRAMS

BioScholars

BioScholars provides eligible students with an enriched experience of research experiences, mentoring, networking, honor’s seminars, and other opportunities for engagement in all aspects of the biological sciences. More information at Division of Biological Sciences Co-Curricular Enrichment and BioScholars

Eureka Scholars

Eureka! Scholars is a highly competitive summer research training program for some of our most promising undergraduates. Each year, we select outstanding students to participate as Eureka! Scholars during the summer months in leading life sciences labs. Under the guidance of a mentor, Eureka! Scholars conduct leading-edge research which greatly expands and integrates their academic learning and jumpstarts their role as young scientists in the discovery of new knowledge.

Wienhausen Scholarship Program

The Gabriele Wienhausen Biological Sciences Scholarship Program promotes engagement in community service, leadership, and research by supporting students’ participation in experiential learning opportunities on and off the UC San Diego campus. This scholarship is a one-year award up to $2,000