

Vicky's Guide to Research and Funding for Undergraduates

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~Hello! My name is Vicky Chen, and I am a fourth-year undergraduate student at UCSD studying biochemistry within the Department of Chemistry & Biochemistry. I am also the Vice President Internal for the American Chemical Society Student Affiliates at UCSD. My research experience lies in RNA biology and cell metabolism. As a low-income, first generation college student, I have had to learn my own ways to discover where I want to go with my career and how to get there. From seeking out many resources, I have previously been part of the TRELs and STARS programs at UCSD, and I am currently a UC LEADS scholar. I wanted to pass on my knowledge and show others what I have learned about getting into undergraduate research to benefit other students like me! Feel free to contact me at v6chen@ucsd.edu.

This document is tailored a bit towards students within the Division of Physical Sciences at UCSD.

Introductory Question

What do you want to get out of research and why?

Many students get into research for different reasons such as having an interest in a specific topic, wanting to make some money, gaining experience to go into industry, or preparing for graduate or professional school. Certain labs and research programs for undergraduates provide different experiences for students. Research programs can be aimed to just help undergraduates get involved in research or prepare them for things like graduate school. Some students don't look to get very involved in research, and may want to join a lab to make some money and gain a bit of technical experience.

Getting Into Research

In order to participate in undergraduate research programs, you're typically expected to already be part of a lab. Here details ways you can find a professor to work with.

1. Cold email professors — Look into department websites and find their faculty list which also details what a professor's research is as well as their lab website and contact information. You're not going to know immediately what subfield or niche you're interested in or what they even are and that is okay! Initial descriptions of professors may just include a few sentences, so read their blurbs and dig into their websites if you become more curious. When you've found a professor you're interested in working with, send an email describing who you are, why you're interested in their research, and if the professor has some time to chat about their research and potential opportunities.
2. Check out UCSD websites/portals — [Handshake](#) and [REAL portal](#) have many postings that look for undergraduates interested in volunteering in research or being paid as a lab technician/assistant.
3. Talk to your TA or professor in a class — If you're in a class with a professor you enjoy learning from, ask about their research and if they have some space for you to conduct

research and learn more. You can also reach out to them for guidance in determining what type of research you're interested in.

Getting Paid

Undergraduate students apply for a variety of programs to either earn money or gain academic credit through research. Besides being a lab assistant, most undergraduate research positions are *unpaid* and are seen more to be a way for a student to gain experience in exchange for helping the lab out with research. Different programs offer different amounts of credit, money and resources for students. Most of these programs also expect that you have already found and are part of a research group. In your application, you typically submit a research proposal that your PI has approved of. Most research proposals are projects under a graduate student or a postdoctoral fellow in the lab you are working in. For students who are not that interested in research itself but would like to gain some experience, you may look for job openings in labs to become a lab assistant where you help with lab upkeep through cleaning, making stock solutions, etc.

Quarterly Awards

Some UCSD programs offer small stipends or academic credit by quarters and expect the student to present their research by the end of the academic year. Many of these programs also have an emphasis on supporting low income students, first generation college students, and students from underrepresented groups.

1. [Triton Research and Experiential Learning Scholars](#) (TRELS) — TRELS is an undergraduate research program that offers a \$1000 stipend per academic quarter. During the summer, TRELS offers a larger summer research program that offers \$5000 and the opportunity to present at UCSD's annual Summer Research Conference.
2. [Faculty Mentor Program](#) (FMP) — The FMP program is similar to TRELS but done for academic credit such as a 99 or 199.
3. [BUMMP Research Apprenticeship Program](#) (BRAP) — This program supports students who do research in biology related fields, but doesn't require the faculty mentor to be within the School of Biological Sciences. It offers a \$1000 stipend as well as mentorship from a graduate student.

Undergraduate Research Hub (URH) Summer Research Programs (SRP)

The [URH](#) is one of UCSD's largest resources for students to get into research or look for funding opportunities. They offer help in finding a faculty mentor as well as provide quarterly and summer programs for students to gain research experience and earn money. Some of these programs are specifically aimed to support low income students, first generation college students, and students from underrepresented groups. Again, most of these programs expect that you have found a faculty mentor and have a research proposal in order to apply. Most of these programs have you present at the annual Summer Research Conference at UCSD.

1. [TRELS](#) — TRELS offers a summer program that offers a \$5000 stipend as well as workshops and GRE training.
2. [UC Scholars and Genentech Scholars](#) — These two summer programs are very similar but the Genentech Scholars program is slightly longer with a little bit more money

awarded. The programs offer at least \$3000 and also offer housing for students. GRE training, 199 credit, and workshops are also provided by the programs.

3. [McNair Program](#) — The McNair program is actually an *annual* program that has programming during the academic year as well as a summer portion. It is for juniors and seniors interested in going to graduate school and supports students who are low income, first generation, or a member of a group that is underrepresented in graduate studies. *Requires a letter of recommendation.*
4. [Other programs offered by the URH](#)

Graduate Division Research Programs for Undergraduates

1. [UC Leadership Excellence Through Advanced Degrees](#) — The UC LEADS program identifies educationally or economically disadvantaged undergraduates enrolled in UC San Diego to be part of a two-year pre-PhD program. This program provides two summers of paid research experience, with one being at another UC of your choice, and prepares you for graduate school. Students apply for this program during their second year of undergrad. *Requires one letter of recommendation.*

I am in this program and as a first generation, low income student, it has exposed me to many experiences to get ready for graduate school. It also provides a great opportunity to meet and talk to students who are also from similar or other underrepresented backgrounds.

2. [Summer Training Academy for Research Success](#) (STARS) — The STARS program provides an 8-week summer research experience while living on campus. STARS provides programming to prepare you for graduate school. Students who participate in this program are also assigned a faculty mentor instead of having to look for one. This program also hosts many students from other universities who are part of programs that have allowed them the opportunity to do research at UCSD for a summer. *Requires two letters of recommendation.*
3. [Other programs offered by Grad Division](#)

Other Programs

1. [Physical Sciences Undergraduate Summer Research Award](#) — This award offers students a \$7500 stipend to conduct research with a faculty mentor under the Division of Physical Sciences. There is a requirement to present a poster at the end of the program.
2. Other universities — Other universities, including other UC campuses, have summer research programs that can host students from other universities. Look into university websites for what research programs are available for students outside the university.

Conference Funding

UCSD has multiple awards that provide funding for students who want to attend conferences to present their research. Science is not just about conducting research, but also being able to communicate it to others and spreading knowledge.

1. [URH Conference Funding](#) — After taking part in one of the research programs under UCSD's URH, you can apply for up to \$500 in conference funding.

2. College Funding — Look into your college at UCSD and see if they provide any scholarships related to travel or research.
3. [Division of Physical Science EDI Fund](#) — The Division has EDI funds where with a proposal, you can request funding to attend an EDI related conference or also obtain funding for other EDI related projects.

Version History

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