Getting Started in Research

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Biological Sciences
where discovery comes to life
UC San Diego

do/bio
The Center for
Discovering Opportunities
in Biological Sciences
Session Overview:

- Why do research?

- Overview of research opportunities (with a focus on campus or very local, academic year opportunities – note there will be a separate session on summer opportunities Nov. 4 at 4-5pm in Bonner Hall 2130)

- How to find faculty advisors (identifying them, tips for reaching out to them)

- Faculty Panel (5:15-6:00pm)
What is research?

Why is research valuable for me?

Is research right for me?

See
http://biology.ucsd.edu/education/undergrad/research/index.html
Paths to Research Involvement
(see http://biology.ucsd.edu/education/undergrad/research/index.html)

1. Undergraduate Research for Academic Credit
https://biology.ucsd.edu/education/undergrad/research/research-acad-cred/

- Biology: BILD 99, BISP 199 & BISP 196
- Non-Biology: AIP 197, MED 199, SIO 199, etc. (if your project not eligible for BISP199 bcs it does not fit our guidelines, or you miss the Bio application deadline, and the faculty member you want to work with is in another department)

Notes:
For 4 Unit 199s, faculty expect 12+ hrs/week! Ask about time expectation!
Can petition for UD elective or lab credit for BISP or other department 199!

2. Volunteer

3. Paid positions @Port Triton https://career.ucsd.edu/port-triton/index.html
Alternatives to think about if not (yet) eligible for 199.
How Do I Find a Faculty Mentor?

1. REAL portal: [http://real.ucsd.edu/](http://real.ucsd.edu/)

2. AIP application site (specific opportunities listed). Most also listed see at REAL portal but sometimes more up to date here: [http://aip.ucsd.edu/students/apply-aip.html](http://aip.ucsd.edu/students/apply-aip.html)

3. Not all faculty post opportunities @REAL, so you can also enquire via email or personal contact, after deciding you are interested in their websites…
   
   a. Faculty websites in Division of Biological Sciences (or SOM, Chemistry, SIO…): e.g. for Biological Sciences go to main webpage for Division > Faculty & Research > Research > Names > look for lab websites

   b. Faculty websites at La Jolla Mesa institutions, e.g.:
   
   - Salk [@www.salk.edu > Scientists and Research > Research Areas > Faculty Experts](http://www.salk.edu)
   - The Scripps Research Institute (TSRI) [@www.scripps.edu > Research & Faculty > Departments > Faculty](http://www.scripps.edu)
   - J Craig Venter Institute (JCVI) [@http://www.jcvi.org/cms/home/ > Research > Groups > Topics > Team](http://www.jcvi.org/cms/home/)

Note: most scientists at these have no UCSD affiliation so can’t sponsor BISP199
Email Tips when Enquiring About Research Opportunities

- Customize your email to each faculty member (why is this person’s research interesting to you? why are you interested in getting involved in this research area? how do you know that person, if you do?)

- Proof read your emails and make sure the font/color/size of text is consistent

- Point out your relevant experience (prior lab work, science fair project, bio lab classes)

- Indicate your willingness for a long-term effort (generally, faculty looking for more than one quarter and at least 10 hrs per week – how many can you devote?)

- Keep it brief

- Follow-through (one follow up email 1-2 weeks after the first, perhaps a personal drop-in visit after that but be courteous!)

- Keep trying to find someone (realizing that many people just can’t take a student now)

- Expect to spend several weeks (possibly even months) looking for an opportunity
Email Tips when Enquiring About Research Opportunities

Don’t...

♫ Have multiple faculty members in the To: line

♫ Use a different font for the faculty name than the rest of the email text (suggests cut & paste)

♫ Send a generic message saying nothing specific about faculty’s research

♫ Make specific remarks about your interest in the faculty member’s research topic cut and pasted from their website
How to Prepare For An Interview

- Go with knowledge of that faculty member’s research based on reading their website, better yet a research paper or two.

- Bring a list of questions, e.g. specific questions based on something you read on their website or in a paper and/or questions about what kinds of projects might be available for you to work on.

- Explain how this experience is important to your future career plans and what kind of involvement you are looking for (volunteering? research for credit?)

- Show interest by asking if you can participate in group or lab meetings, or what papers the faculty member suggests for you to read to learn more about their research topic, taking notes.

- Send a thank-you message afterwards conveying your enthusiasm to work in that lab.

- If an opportunity is offered, make sure you understand the expectations (e.g. overall time commitment and specific times you should be there) and meet them. You may not get a second chance especially if you fail to deliver on expectations early on.
Faculty Panel:

- Prof. Jim Golden (microbiologist and professor in Section of Molecular Biology)
- Prof. Pamela Reinagel (computational neurobiologist in Section of Neurobiology)
- Prof. James Nieh (evolutionary biologist in Section of Ecology, Behavior and Evolution)
- Prof. Elizabeth Winzeler (tropical disease researcher in UCSD School of Medicine)