HPAC Ambassador Panel - Research
Tuesday, October 19th 2021 | 5-6pm
Thaniya; Neha N.; Dominic; Yuma; Syreze

Purpose of Research: To create new knowledge. To answer unanswered questions.

What is research?

- Research at UCR generally consists of students assisting faculty in their own work in different disciplines. It is difficult as an undergraduate to establish your own research project without prior experience. So, in assisting a faculty member in pre-established research, it provides experience in exploring the field of research.
- Almost all professors at UCR do some type of research, but unlike many other research institutions, many are willing to accept undergraduate researchers into their labs! Many interviews are an email away, so the only wrong way to go about getting started is by doing nothing at all!

How to seek research opportunities?

Seek through the undergraduate research portal, befriending professors through office hours, cold-emailing professors whose research interests you. Find resources at UCR or outside of UCR.

UCR Research Resources:

1. **BIOL020 (Dynamic Genome**): Explores scientific discovery using the tools of bioinformatics and genomics. https://dynamicgenome.ucr.edu/hhmi-salsa-scholars
    a. 2 Units, Laboratory, 6 hours. Prerequisite(s): CHEM 001A or CHEM 01HA, MATH 008B or MATH 009A (MATH 009A may be taken concurrently); freshman standing. Introduces computational and experimental approaches in investigating the genomes of plants and animals. Includes participation in research projects being conducted on campus. Credit is not awarded for BIOL 020 if it has already been awarded for BIOL 002 or BIOL 05LA.
2. **California Alliance for Minority Participation (CAMP):** https://stem.ucr.edu/research-opportunities/camp
    a. Designed for students in the Science, Technology, Engineering, and Mathematics (STEM) fields pursuing graduate (Master/Doctoral) degrees.
    b. Paid research internship. Must apply every quarter.
    c. Goals include:
        i. To increase the quantity and quality of underrepresented students receiving Baccalaureate, Master and Doctoral degrees in STEM.
        ii. To support sustained and comprehensive approaches that facilitate achievement of the long-term goal of increasing the number of students who earn doctorates in STEM.

iii. Foster undergraduate research as a stepping stone toward higher education.
iv. Develop written and oral communication skills.

3. **Maximizing Access to Research Careers (MARC U STAR)**: https://marcu.ucr.edu/
    a. Undergraduate Student Training in Academic Research.
    b. The purpose of the program is to encourage underrepresented students in the sciences to pursue graduate research and careers in the sciences.
    c. Application opens in November 2021.
4. **Research in Science and Engineering (RISE):** https://stem.ucr.edu/research-opportunities/rise
    a. 10-week Summer research program that runs from late June to the end of August
    b. Prepares participants for graduate and professional study by providing valuable research experiences, training, seminars, meetings with the Divisional Dean, and professional development workshops.
    c. Participants receive a stipend of $5,000.
5. **Chancellor's Research Fellowship (CRF):** https://se.ucr.edu/research/chancellor_fellowship
    a. A competitive award that supports undergraduate student engagement in faculty-mentored research and creative activity projects. This award is open to students in all disciplines.
    b. Fellows receive a stipend of $5,750.
6. **Barry Goldwater Scholarship:** https://goldwaterscholarship.gov
    a. The most prestigious undergraduate scholarship in the natural sciences, mathematics, and engineering in America.
    b. A merit award of $7,500 for outstanding undergraduate researchers who plan to pursue a Ph.D. in the sciences, mathematics, and engineering.
7. **Mini Grants:** https://se.ucr.edu/research/minigrants
    a. Enables undergraduates to participate in a faculty mentored research, creative or artistic projects of their own design.
    b. Proposals for these grants will be evaluated by a Review Committee.
8. **Undergraduate Research Portal** https://se.ucr.edu/research/portal
    a. Allows students to find opportunities to participate in faculty-mentored research, scholarship, and creative activities across UCR campus and includes different disciplines.
9. **Undergraduate Research Journal**: https://se.ucr.edu/research/journal
    a. Gives students the opportunity to publish their research in this student-edited multi-disciplinary journal.
10. **Undergraduate Research Symposium**: https://se.ucr.edu/research/symposium
    a. Provides the opportunity for undergraduates across disciplines to share their research and creative activities with the UCR community in a variety of ways, such as oral presentations, poster sessions, art exhibits, performances, and electronic media.

Research Resources Beyond Campus

1. **National Stem Research/Fellowship Database:** https://stemundergrads.science.gov/
    a. A database for finding research internships/fellowship programs across a wide range of STEM disciplines and academic levels.
    b. Can use the detailed search tool to find programs that you are both interested in and qualified for, based upon geographic region.
2. **AAMC Research Opportunities for Undergraduate Students:** https://www.aamc.org/professional-development/affinity-groups/great/summer-undergrad-research-programs
    a. Catalog of different health-sciences related research opportunities at different universities across the US.
    b. Many are summer internships with varying criteria for application (program by program basis).
3. **AAMC Research Opportunities for Post-Bac and Graduates Students:** https://apps.aamc.org/cim-cr-web/#/
    a. Catalog of different health sciences related research opportunities at different universities, specifically for students who have already graduated from college.
    b. Similar to the undergrad catalog, but specifically for post-grad students looking to engage in research.
4. **Summer Undergraduate Research Fellowships (SURF):** https://www.nist.gov/surf
    a. Designed to inspire undergraduate students to pursue careers in STEM (science, technology, engineering, and mathematics) through a unique research experience that supports the NIST mission.
    b. Over the course of 11 weeks, SURF students contribute to the ongoing research of one of the six NIST facilities, which include Communications Technology Laboratory (CTL), Engineering Laboratory (EL), Information Technology Laboratory (ITL), Material Measurement Laboratory (MML), NIST Center for Neutron Research (NCNR), and Physical Measurement Laboratory (PML) (which now includes project in the Center for Nanoscale Science and Technology).
    c. Will be held virtually for Summer 2021.
5. **Travelers Summer Research Fellowship Program (Weill Cornell SOM):** https://medicaleducation.weill.cornell.edu/medical-education/premedical-programs/travelers-summer-research-fellowship-program
    a. Designed to give 25 premedical students deeper insights into the field of medicine, including issues that greatly affect the health of traditionally underserved groups.
    b. Summer fellows attend a series of talks by minority physicians about various medical specialties, shadow physicians to expose themselves to the clinical facets of medicine, and receive information on the medical school admissions process and counseling on financial planning for medical school.
    c. Will be held virtually for Summer 2021.
6. **NIH MD/PhD Physician/Medical Scientist Training Programs:** https://www.nigms.nih.gov/training/instpredoc/pages/predocinst-MSTP.aspx

    a. Train individuals who can understand and contribute to advances in research, and can also apply those advances to the field of medical care.
    b. The purpose of the Medical Scientist Training Program is to award institutions to develop and implement effective, evidence-informed approaches to integrated dual-degree training leading to the award of both a clinical degree, (M.D., D.O., D.V.M., D.D.S., Pharm.D.) and research doctorate degree (Ph.D.).
    c. Application is up to the university. UCR does not offer a program but UCD, UCLA, UCI, and Stanford are the CA programs.
7. **Naval Research Enterprise Internship Program** https://navalsteminterns.us/nreip/
    a. 10-week summer research internship in STEM sponsored by the Navy.
    b. Medical options → research takes place on site at Navy bases across the US.