SUMMER RESEARCH 101

Mon. Oct. 28th 10:30 - 11:00 Rieke 103
Dr. Justin Lytle (Chemistry Department)
The glory of summer jobs!

Hold on! I can get paid to do scientific research???
SUMMER UNDERGRADUATE RESEARCH PROGRAMS and INTERNSHIPS

• Typically 10 weeks

• Full-time (40 hours/week)

• Pay ~$5,000 +

• Sometimes includes a housing stipend or arrangements

• Opportunity to explore what life is like after PLU: *graduate school & careers in science!*
PLU Natural Sciences Summer Undergraduate Research Program (NSSURP)

http://www.plu.edu/nsci/undergraduate-research-program/

• 10 weeks (Jun 1 - Aug 7, 2020)
• PLU faculty members mentor students
• Weekly Professional Development Lunches
• Total expected Research Fellowship Award = $5,400
• Expect our website to go “live” on February 11, 2020
  - mentor research descriptions and student-researcher expectations
  - student-researcher fellowship application Google form

• Introduce yourself to the faculty mentors you want to work with & select your top two choices

• Applications will be DUE on February 25, 2020
The Long Science, Technology, and Society Endowed Internship Fund

https://www.plu.edu/alumni-student-connections/internships/long-internship/

• Up to $4,000 in funding to do otherwise unpaid summer internships in science and technology
• Application due May 15, 2020
• Requires:
  a. a 500-word proposal
  b. your résumé
• 2 students will be selected in 2020
Research Experiences for Undergraduates (REU)

https://www.nsf.gov/crssprgm/reu/reu_search.jsp

Search for an REU Site

Chemistry

Site Information:
Baylor University
An Advanced Instrumentation Emphasis REU
Chemistry & Biochemistry

Site Location:
Waco, Texas

Contact Information:
Primary: Charles Garner
254-710-8862
charles_garner@baylor.edu
Secondary: Barbara Rauls (Administrative Assistant)
254-710-4926
barbara_rauls@baylor.edu

Additional Information:
Research Topics/Keywords: organic chemistry, physical chemistry, analytical chemistry, biochemistry, inorganic chemistry, geochemistry, environmental chemistry, chemical physics

Site Information:
Boston College
REU Site: Integrated Science For Society (IS2)
Physics

Site Location:
Chestnut Hill, Massachusetts

Contact Information:
Primary: Kenneth Burch
(617) 552-3575
ks.burch@bc.edu
National Science Foundation (NSF) Research Experiences for Undergraduates (REU)

https://www.nsf.gov/crssprgm/reu/reu_search.jsp

• 10 weeks (like PLU program)
• Faculty/grad student/postdoc mentors
• Professional skills and social activities
• Housing often included (dorm, shared house)
• Pay $5,000 - $6,000
• Application deadlines vary but start in Nov.
• Some targeted programs (first-years, underrepresented groups, etc.)
Summer Undergrad. Laboratory Internship (SULI)

[http://science.energy.gov/wdts/suli/](http://science.energy.gov/wdts/suli/)

- Fall, Spring, and Summer 10-week programs
- 17 participating DOE National Labs
- Professional skills and social activities
- Housing is sometimes included
- Stipend $600/week
- Application for Summer 2020: due Jan. 9, ‘20
- Broad research areas: chemistry, engineering, physics, environmental science, energy research, etc.
SUMMER INTERNSHIP PROGRAM IN BIOMEDICAL RESEARCH (SIP)
https://www.training.nih.gov/programs/sip

- 8-10 weeks
- Work on any of 1,200 NIH campuses
- >7,000 apps; ~1,000 positions in 2019
- Pay ~$2,300/mo.
- No housing assistance
- Application available mid-Nov. 2019
- Deadline March 1, 2020
SUMMER INTERNSHIP PROGRAM IN BIOMEDICAL RESEARCH (SIP)

FAQs about applying:
https://www.youtube.com/watch?v=criFfuK55OU
TALK TO PLU’S MATH FACULTY TO MENTOR YOU ON YOUR APPLICATION
Other Federal Agencies to Explore

Google “undergraduate research” or “summer research” or “internships”

• USGS
• NOAA
• EPA
• Department of Defense
• Department of Homeland Security
• National Cancer Institute
• Centers for Disease Control (CDC)
• Others – explore!
Local Companies to Explore

Google “undergraduate research” or “summer research” or “internships”
Fred Hutch Science Internship list

PLU Chemistry Opportunity Blog
http://www.plu.edu/chemistry/news/topic/opportunity-blog/

PLU Alumni & Student Connections
http://www.plu.edu/alumni-student-connections/

• Lots of other collections of links to undergraduate research and internships
• Search by the keywords you are curious about!
• Look at postings around Rieke/Morken
HOUSING, MEALS, AND TRANSPORTATION
Interns are responsible for their housing, meals, and local transportation. Housing is available at the University of Washington for approximately $2,400 for the duration of the program. Interns are eligible to purchase a subsidized transportation pass for $45. There is a free shuttle between the Fred Hutch and University of Washington campus that departs every 15 minutes.

HOW TO APPLY
Students interested in participating in the Summer Undergraduate Research Program may submit an application at: www.fredhutch.org/surp. The application deadline is Friday, January 10, 2020. Letters of recommendation for up to two references are due by Friday, January 17, 2020. Notification of acceptance will occur in mid- to late-February.
Students from Pacific Lutheran University and Seattle Pacific University who are pursuing a degree in biology, biochemistry or chemistry are eligible for this nine-week summer program in Fred Hutch’s Vaccine & Infectious Disease Division. Interns help with basic laboratory maintenance and research; at the end of the summer, they give presentations detailing their research projects.

CHECK BACK SOON TO SEE WHEN APPLICATIONS AND DUE DATES ARE POSTED
Eligibility Requirements

- Must be 18 years or older
- Entering junior or senior year in Fall 2020
- Pursuing a degree with a concentration in biology, biochemistry, chemistry, or a related field
- Students must be able to commit to entire program period in order to participate.
- For lab-based positions:
  - A minimum of two wet lab courses with emphasis in pipetting, sterile technique, data interpretation, and good lab notebook practices
  - Must be comfortable working with biohazardous/infectious agents (BSL2) under carefully controlled conditions: HIV, HSV, and bacteria

This internship opportunity is unpaid, but the Long Science, Technology & Society Endowed Internship Fund could be applied to it

https://www.fredhutch.org/en/careers/internship-opportunities.html#vets
Stanford's Summer Undergraduate Research in Geoscience and Engineering Program
https://oma.stanford.edu/surge  Open to students from all ethnic backgrounds. Applications are especially encouraged from students who are Black/African Americans, Latino/Chicano Americans, Native Americans, and Pacific Islander Americans. 8-week mentored summer research experience:
SURGE 2019 Applications Accepted: 30 Nov 2018 – 25 Jan 2019 (check back soon for updated details)

Pharmacological Science Summer Diversity Program (PSSDP)
https://sop.washington.edu/department-of-medicinal-chemistry/graduate-education-training-programs/pharmacological-science-summer-diversity-program-pssdp/  Hands-on research in the basic biological and physical sciences, in the broadly defined areas of drug metabolism, pharmacokinetics, cellular pharmacology, molecular pharmacology, and biophysical virology. (check back soon for updated details)

Outreach to underrepresented students in the STEM fields.
https://www.pathwaystoscience.org/Undergrads.aspx

Mayo Clinic College of Medicine & Science
Rochester, MN • Jacksonville, FL • Scottsdale, AZ
https://college.mayo.edu/academics/biomedical-research-training/summer-undergraduate-research-fellowship-surf/
Paul W. Zuccaire Internship Program                    Paris, France
http://www.pasteurfoundation.org/scientific-careers/summer-internship
Provides U.S. undergraduates, entering their Senior year, with the rare opportunity to work on supervised research projects at the Institut Pasteur. The Foundation’s goal is to encourage and inspire students in the pursuit of a scientific career and to expose them to an international laboratory experience.

UC San Diego Summer Training Academy for Research Success
https://grad.ucsd.edu/diversity/programs/stars/index.html#Eligibility
Applications due Jan 30, 2020; Program Dates: Jun 21 - Aug 14, 2020

University of Oregon Summer Program for Undergraduate Research
http://spur.uoregon.edu/
SCI Scholars 2020 Summer Internship Program Application

Thank you for your interest in the SCI Scholars program. This program was developed by SCI, in partnership with ACS and AIChE, to provide exceptional chemistry and chemical engineering students with prestigious internships at high-profile organizations.

To be eligible, applicants must be current sophomores or juniors, U.S. citizens or permanent residents, and able to complete the 10-week internship (unless otherwise noted) during the summer of 2020. Applicants must be majoring in chemistry or chemical engineering, with a minimum GPA of 3.5 out of 4.0.

To complete the SCI Scholars application

1. Complete this form and upload a copy of your current CV or resume.
2. Have two people submit letters of recommendation for you online (at least one recommendation must be from a faculty member in your major from your undergraduate institution).
3. Submit an official transcript:
   ○ Submission of electronic transcripts is encouraged, if supported by your institution. Send to sci@acs.org.
   ○ If you have attended more than one post-secondary institution, submit transcripts from all institutions.
   ○ If electronic official transcripts are not supported, hardcopies can be mailed to SCI Scholars/Education, American Chemical Society, 1155 16th Street NW, Washington, DC 20036. Transcripts must be postmarked November 30, 2019, or sooner.

Deadline for applications and recommendations is November 30, 2020 at midnight (EST)/9:00 p.m. (PST).

https://www.acs.org/content/acs/en/education/students/college/experienceopp/scischolars.html
What do I need to apply to these programs?
TALK WITH YOUR PLU FACULTY MEMBERS

- Online application
- Letters of recommendation
  - Make appts with professors to discuss
  - FERPA form
- Transcript(s)
- Personal statement/essay
- Résumé – see PLU Alumni & Student Connections
  Be sure to include courses, lab techniques, software
Have Questions? Ask Elli Schappler

Elli Schappler
PLU’s Assistant Director for Career & Experiential Learning

How I can help:
• Exploring interests
• Identifying opportunities
• Strengthening application materials
• Preparing for interviews
• Reflecting on experience

When I can help:
• Find me every Wednesday from 10-11am in Rieke lobby
• Schedule an appointment with me anytime through the Opportunities Board
Thanks for attending! What questions do you have?