

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**

PLU Natural Sciences Summer Undergraduate Research Program



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

- **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



National Science Foundation (NSF) Research Experiences for Undergraduates (REU)

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



Research Experiences for Undergraduates (REU)

Search for an REU Site

Astronomical Sciences

Atmospheric and Geospace Sciences

Biological Sciences

Chemistry

Computer and Information Science and Engineering

Cyberinfrastructure

Department of Defense (DoD)

Earth Sciences

Education and Human Resources

Engineering

Ethics and Values Studies

International Science and Engineering

Materials Research

Mathematical Sciences

Ocean Sciences

Physics

Show All

Showing 1 to 82 of 82

Sort by: Site Information

Site Information:

Baylor University

An Advanced Instrumentation Emphasis REU

Chemistry & Biochemistry

Site Location:

Waco, Texas

Contact Information:

Primary: Charles Garner

254-710-6862

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.)





U.S. DEPARTMENT OF **ENERGY**

Summer Undergrad. Laboratory Internship (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.***



National Institute of Environmental Health Sciences
Your Environment. Your Health.

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**



National Institute of Environmental Health Sciences
Your Environment. Your Health.

SUMMER INTERNSHIP PROGRAM IN BIOMEDICAL RESEARCH (SIP)

FAQs about applying:

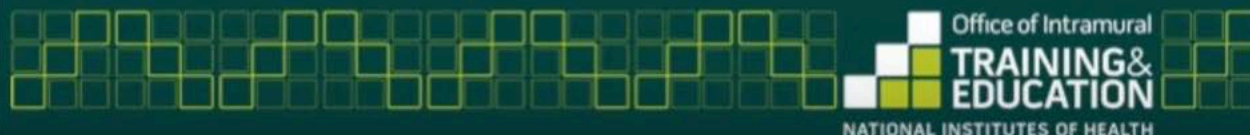
<https://www.youtube.com/watch?v=criFfuK55OU>

Applying to the NIH Summer Internship Program



The NIH Summer Internship Program

Dr. Sharon L. Milgram, Director NIH OITE
milgrams@od.nih.gov



0:10 / 21:23



YouTube



About MathPrograms.Org

- [Introduction](#)
- [User Documentation](#)
- [Demo server -- try it out!](#)

Login to MathPrograms.Org

- [...as Program applicant](#)
- [...as Program nominator](#)
- [...as Writer of reference letters or proxies](#)
- [...as Faculty or staff at program institutions](#)

Upcoming Deadlines, Closing Dates (more...)

- **Mathematical Association of America, MAA Project NExT**

[[NEXT20](#)] MAA Project NExT - 2020 (2019/10/15) [ezApply](#)

Serving mathematical institutions worldwide for over 11 years



**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™



Fred Hutch Science Internship list

<http://www.fredhutch.org/en/careers/internship-opportunities.html>

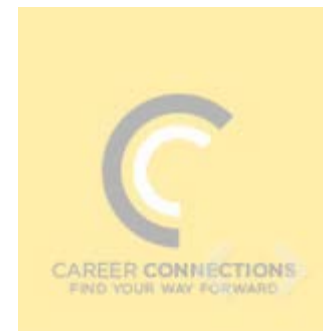


PLU Chemistry Opportunity Blog

<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*

SUMMER UNDERGRADUATE RESEARCH PROGRAM

Biomedical Research Opportunities Start Here!



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.

www.fredhutch.org/surp



Small University Undergraduate Summer Internship ▲

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**



FRED HUTCH™

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

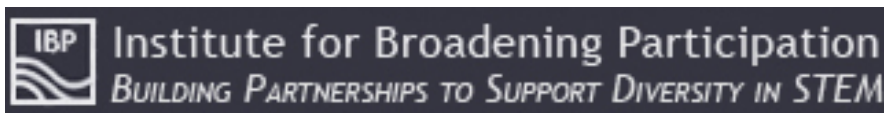
<https://www.fredhutch.org/en/careers/internship-opportunities.html#vets>

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/departments-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).

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*

https://www.plu.edu/student-life/wp-content/uploads/sites/212/2014/11/aa_ferpa-release_master.pdf

- **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?**