

***For Undergraduate Students (graduate students - please scroll to end of list)***

## **George Mason University:**

### **Aspiring Scientists Summer Internship Program (ASSIP)**

Program Description: Students work alongside Mason researchers using state-of-the-art technology to solve hypothesis driven questions in Proteomics, Genomics, Medicine, Neuroscience, Chemistry, Biochemistry, Biodefense, Environmental Science, Mathematical Modeling, Computer Science, Bioinformatics, Nanotechnology, Physics and Bioengineering.

- Website: <http://assip.cos.gmu.edu>
- Application opens November 15, 2019
- Internship Duration:
- Paid: No
- Location: Fairfax, VA

### **The Undergraduate Research Scholars Program (URSP)**

Program Description: URSP is designed to give undergraduates an authentic research, creative, or scholarly experience under the guidance of a mentor. Students may receive financial support and/or academic credit for their projects, in addition to developing relevant academic and professional skills.

- Website: <https://oscar.gmu.edu/students/ursp/>
- Application Due Date for Summer 2020: Feb. 19th, 2020
- Internship Duration: June 2 – August 7, 2020
- Funding: Traditional 144 hrs – \$ 1000, intensive: 360 hrs – \$ 4000

## **LOCAL:**

### **Janelia Research Campus (HHMI) – UG Scholars Program:**

Program Description: The Janelia Undergraduate Scholars program is a 10-week summer program aimed at well-prepared, independent, and committed students with significant research experience. We accept undergraduates and post-baccalaureate students who have not committed to a PhD program.

- Full Description & Requirements: See below link
- Website: <https://www.janelia.org/you-janelia/students-postdocs/undergraduate-scholars-program>
- Application deadline: January 7<sup>th</sup>, 2020 @ 3:00 pm
- Internship Duration: Summer 2020, from May to August, 10-week program
- Paid: \$5000 for a 10-week period
- Location: Ashburn, VA
- **International students are eligible and visas will be supported**

### **Biomedical Engineering Summer Internship Program (BESIP):**

Program Description: The NIBIB-sponsored Biomedical Engineering Summer Internship Program (BESIP) is for undergraduate biomedical engineering students who have completed their **junior year** of college. The internship will allow rising senior biomedical engineering students to participate in cutting-edge biomedical research projects under the mentorship of world-class scientists in NIH laboratories in Bethesda, Maryland.

- Website: <http://www.nibib.nih.gov/training-careers/undergraduate-graduate/biomedical-engineering-summer-internship-program-besip>
- Online Application Deadline: February 3, 2020
- Reference Letters Deadline: February 10, 2020
- Internship Duration: June 1<sup>st</sup> – August 7<sup>th</sup>, 2020
- Notification of selected interns: February 24, 2020
- Interns must accept or decline by: March 9, 2020
- Paid: \$5600
- Location: Bethesda, MD

### **Summer Internship Program in Biomedical Research (SIP): Application open, there are several subprograms on the webpage as well**

Program Description: Summer programs at the National Institutes of Health (NIH) provide an opportunity to spend a summer working at the NIH side-by-side with some of the leading scientists in the world, in an environment devoted exclusively to biomedical research. The NIH consists of the 240-bed Mark O. Hatfield Clinical Research Center and more than 1200 laboratories/research projects located on the main campus in Bethesda, MD and the surrounding area as well as in Baltimore and Frederick, MD; Research Triangle Park, NC; Phoenix, AZ; Hamilton, MT; Framingham, MA; and Detroit, MI.

- Website: <https://www.training.nih.gov/programs/sip>
- Application Due Date: March 1, 2020
- Internship Duration: 8 weeks starting in May or June (TBD)
- Paid: The stipends for trainees are adjusted yearly; the level depends on education completed prior to starting at the NIH.

### **Opportunities at FDA for graduate and undergraduate students:**

<https://www.fda.gov/AboutFDA/WorkingatFDA/FellowshipInternshipGraduateFacultyPrograms/default.htm>

### **University of Virginia – Summer Research Internship Program**

Program Description: The University of Virginia, School of Medicine offers summer research internship opportunities to qualified college undergraduates considering a career in biomedical research. The program targets, but is not limited to, racially and ethnically diverse students in their junior and senior years. Interns receive approx. \$4,683 toward summer expenses. In

addition, housing and travel to and from Charlottesville are provided. The program's goals are to expose undergraduates to laboratory research and to familiarize them with the opportunities that exist for careers in biomedical research. Presentations and panel talks from our graduate students, along with free GRE tutorials, help SRIP interns successfully navigate the graduate school application process.

- Website: <http://www.medicine.virginia.edu/education/phd/gpo/srip/home-page>
- Application Due Date: February 1<sup>st</sup>, 2020
- Internship Duration: May 22<sup>nd</sup> – July 31<sup>st</sup>
- Paid
- Location: Charlottesville, VA

### **Virginia Government: Division of Consolidated Laboratory Services (DCLS)**

Want an unique summer work experience? Apply for an Internship under the strong leadership and support of experienced public health officials at DCLS. Work with our highly skilled scientific laboratory teams in the field of your interest and have the opportunity to experience the exciting challenges met in the different areas of public health and emergency response.

- Website: <http://dcls.dgs.virginia.gov> or more information: [DCLSinternship@dgs.virginia.gov](mailto:DCLSinternship@dgs.virginia.gov)
- Application Due Date: February 7<sup>th</sup>, 2020
- Paid: \$14- \$15
- For: Junior and senior undergraduate students, recent graduates and graduate students
- Where: Richmond
- When: As early as May, 10-12 weeks, 40 hours/week

### **Internship Opportunity for Summer 2020 or semester work available at the HIVE lab:**

**HIVE (High-performance Integrated Virtual Environment)** is a powerful platform for building genome analysis pipelines. HIVE is the bioinformatics tool used by the FDA to research and evaluate clinical trials and other research, and GWU maintains the only operational clone of this platform. There are several projects in our group, the flagship project is BioCompute, which aims to standardize the communication of bioinformatic workflows. An instance of a workflow written in the BioCompute format is called a BioCompute Object (BCO). Currently there are a few potential projects that students can help with: Build and test next generation sequencing pipelines on Amazon Web Services (AWS) using HIVE, record these pipelines as BCOs, helping to lead training workshops at the FDA to gather feedback and improve the BioCompute specification (networking opportunity for students), HIVE testing and maintenance, building and testing the BCO Editor ([test version here](#)), building and maintaining our [website](#)

**Skills and abilities needed:** Exposure to biology subject matter and a strong desire to learn bioinformatics, or previous work/school experience with bioinformatics. Dedication to a project and the ability to see it through to completion. Problem solving disposition; a tendency to look for solutions when challenges arise.

**Skills and abilities preferred, depending on project:** Python, HTML/CSS, and/or JavaScript;  
Social personality: Students may be asked to learn the software and help the lab show other people how to use it and gather feedback from them. They may even have an opportunity for someone to do some of the speaking at one of these events, depending on skillset. Strong communication skills required. Database architecture experience. AWS and/or Galaxy work experience

**Pay:** Unpaid

**Time:** 10 hours per week are preferred during the semester, flexible depending on course load and other responsibilities; mandatory group meeting 11AM-Noon Mondays

Summer: 20 hours per week; mandatory group meeting 11AM-Noon Mondays

Location: GWU Foggy Bottom Campus (Ross Hall, 2300 Eye St. NW)

Please send your resume and a short letter about yourself to: [keenevig@gwu.edu](mailto:keenevig@gwu.edu)

## **NATIONAL:**

### **JHU –REU Nanotechnology for Biology and Bioengineering**

Program description: Students engage in cutting-edge projects in the fields of engineered cancer therapies, stem cells and regenerative engineering, and diagnostic tool development. The REU is ten weeks of research in a graduate-level lab with faculty and graduate student mentoring. It includes scientific and professional development seminars, social activities, networking and journal club. There will be an oral and poster presentation of research and symposium participation.

- Paid: Housing and stipend and travel allowance
- Status: US citizen or permanent resident
- Application: [inbt.jhu.edu/reu](http://inbt.jhu.edu/reu), program contact Camille Mathis- [cmathis@jhu.edu](mailto:cmathis@jhu.edu)
- Deadline: February 1, 2020

### **JHU – Rosetta Commons REU: A Cyberlinked Program in Computational Biomolecular Structure and Design**

Program Description: Interns in this geographically- distributed REU program have the opportunity to participate in research using Rosetta Commons software. The Rosetta Commons software suite includes algorithms for computational modeling and analysis of protein structures. It has enabled notable scientific advances in computational biology, including de novo protein design, enzyme design, ligand docking, and structure prediction of biological macromolecules and macromolecular complexes. Interns are mentored by faculty and graduate students.

- Website: [ROSETTACOMMONS.ORG/ABOUT/INTERN](http://ROSETTACOMMONS.ORG/ABOUT/INTERN)
- Questions: Email Camille Mathis at [cmathis@JHU.edu](mailto:cmathis@JHU.edu)
- Paid by NSF: Housing, Travel and stipend

- One week of Rosetta Code School, 8 weeks of hands-on research, one week at the Rosetta Conference to close the summer.

## **CNF & PARADIM REU PROGRAM**

Program Description: During the summer of 2020, Cornell NanoScale Science & Technology Facility (CNF) and Platform for the Accelerated Realization, Analysis, and Discovery of Interface Materials (PARADIM) will sponsor Research Experience for Undergraduates (REU) programs from June through August. Engineering and science students with broad interests across disciplines focusing on nanotechnology are eligible to apply (see restrictions and eligibility requirements below) for the ten internships. Women, minorities, and students with no previous research experience are especially encouraged to apply.

- Website for CNF REU: [http://www.cnf.cornell.edu/cnf5\\_reuprogram.html](http://www.cnf.cornell.edu/cnf5_reuprogram.html)
- Website for PARADIM REU: <http://paradim.cornell.edu/outreach/reu-program/>
- CNF & PARADIM REU Online Application: <http://www.reu.nmin.org/>
- Application deadline: *Wednesday, February 12, 2020 (5:00 p.m. Pacific, 8:00 p.m. Eastern)*

## **The Naval Research Enterprise Internship Program (NREIP)**

Program Description: The Naval Research Enterprise Internship Program (NREIP), provides an opportunity for students to participate in research at a Department of Navy (DoN) laboratory during the summer. The goals of the NREIP are to encourage participating students to pursue science and engineering careers, to further education via mentoring by laboratory personnel and their participation in research, and to make them aware of DoN research and technology efforts, which can lead to employment within the DoN.

- Website: <https://nreip.asee.org>
- **Application Deadline: Nov.01, 2019 at 6:00 pm EST**
- Internship Duration: Summer 2020 (10 weeks May – August, 40 hrs per week)
- Paid: \$7000 for new undergrad students, \$8500 returning undergrad students, \$11 000 for grad students.
- Location: Various Locations.

## **National Oceanic and Atmospheric Administration (NOAA)**

Program Description: The National Oceanic and Atmospheric Administration (NOAA) is pleased to announce the availability of scholarships (includes internships) to college sophomore students majoring in STEM disciplines related to oceanic and atmospheric science, research, or technology, and supportive of the purposes of NOAA's programs and mission, e.g., biological, social and physical sciences; mathematics; engineering; and computer and information sciences.

NOAA is accepting applications from students who will have Official Junior status in Fall 2019.

- Ernest F. Hollings Undergraduate Scholarship Program Website: <https://www.noaa.gov/office-education/hollings-scholarship>
- Application Due Date: January 21<sup>st</sup>, 2020
- Eligibility Requirements: US Citizen, 3.0 GPA, Sophomore in college studying a NOAA science: atmospheric science, biology, cartography, chemistry, computer science, engineering, environmental science, geodesy, geography, marine science, mathematics, meteorology, oceanography, physical science, photogrammetry, physics, etc. at the time of application.
- Paid: \$700/week for a 10-week period

### **SRF Summer Scholars Program**

Program Description: The SRF Summer Scholars Program offers undergraduate students the opportunity to conduct biomedical research to combat diseases of aging, such as cancer, Alzheimer's, and Parkinson's Disease. Under the guidance of one or more scientific mentors, each Summer Scholar is responsible for his or her own research project. The Summer Scholars Program emphasizes development of not only laboratory skills but communication skills as well. Students participating in the program will develop writing skills via periodic reports throughout the internship and presentation skills via a poster presentation at a SRF-sponsored conference at the end of the Program. Paid positions are available at world-renowned research institutions throughout the country.

- Website: <http://www.sens.org/education/research-opportunities/srf-summer-scholars-program>
- Application deadline: January 15<sup>th</sup>, 2020
- Internship Duration: 10-12 weeks
- Paid: Stipend
- Location: Various, please check website

### **National Security Agency Summer Intern Program for Science and Technology**

Program Description: The Summer Intern Program for Science and Technology (SIP/ST) is a full time 12-week summer internship program open to college juniors who are concentrating their studies in the disciplines of computer science, computer engineering, electrical engineering, computer systems engineering, network engineering, mechanical engineer or telecommunications.

The SIP/ST participants have an opportunity to work with leading computer scientists and engineers on the nation's toughest cyber problems while enhancing their skills in assignments related to their major. The students work closely with a project mentor on a specific, mission-focused problem while learning in an exciting high-tech environment.

#### *Qualifications:*

- Must be a U.S. citizen
- Must be eligible to be granted a security clearance
- A GPA of 3.0 or higher is preferred

- Must be available for an operational interview and other applicable processing between the month of December 2019 and March 2020
- Must be a college junior or have at least college junior status (high potential sophomores may also be considered)

- Website: <https://www.intelligencecareers.gov/icstudents.html?Agency=NSA>
- <https://apply.intelligencecareers.gov/job-description/1133498>
- Application Due Date: October 15, 2019
- Internship Duration: 12 weeks
- Paid: Yes
- Location: Fort George G Meade, Maryland

### **Wake Forest University REU Internship**

The Biomedical Engineering Department at Wake Forest University will offer several summer research opportunities in 2020 focusing on Imaging and Mechanics-based Projects on Accidental Cases of Trauma (IMPACT) and other biomedical engineering topics. Students selected for this Research Experience for Undergraduates (REU) program will receive a stipend and on-campus housing

<http://www.wakehealth.edu/CIB/Summer-Research-Opportunities.htm>

- Undergraduate students from all institutions (Wake Forest University students are eligible)
- Students in good academic standing - U.S. citizens, U.S. nationals and U.S. permanent residents
- Under-represented students from colleges with limited research opportunities in science, technology, engineering and mathematics are encouraged to apply

Duration: from May 22 - August 1, 2020

Application deadline: February 15th, 2020

### **National Institute of Standards and Technology (NIST) - SURF**

Details about summer 2020 to be announced beginning of December:

<https://www.nist.gov/surf>

US citizens only, anticipated Deadline is February 3<sup>rd</sup>, 2020.

### **University of Michigan Frankel Cardiovascular Center (FCVC) – SURF**

**Summary:** The University of Michigan Frankel Cardiovascular Center is pleased to offer a 10-week fellowship program starting in May 2020 to support undergraduate students interested in cardiovascular research. Each fellow will be matched to a laboratory led by a FCVC faculty member and participate in nationally recognized research in areas such as atherosclerosis, genetic cardiomyopathies, blood clotting disorders, cardiac arrhythmias, vascular biology, and heart failure. The SURF program provides full-time research opportunities at the University of

Michigan for 30 talented undergraduate students interested in cardiovascular research and medicine.

**Application deadline:** Friday, January 31, 2020.

**Time:** The program starts Tuesday, May 26, 2020 and ends the first week of August.

**Website:** <https://tinyurl.com/fvcsurf>.

**Email:** [FCVC-SURF@med.umich.edu](mailto:FCVC-SURF@med.umich.edu)

## **REU (Research Experience for Undergraduates) site for biological sciences**

[https://www.nsf.gov/crssprgm/reu/list\\_result.jsp?unitid=5047](https://www.nsf.gov/crssprgm/reu/list_result.jsp?unitid=5047)

**APPLICATIONS:** Students must contact the individual site or program to apply. NSF does not have application materials and does not select student participants.

**ELIGIBILITY:** Individual sites may have additional eligibility requirements (e.g., number of undergraduate years completed). Undergraduate student participants supported with NSF funds must be citizens or permanent residents of the United States or its possessions. High school graduates who have not yet enrolled, and students who have already received their bachelor's degrees, are not eligible.

### **For Graduate Students –**

#### **GMU Research Fellowship – Helpful Link**

<https://gradfellows.gmu.edu/>  
<https://gradfellows.gmu.edu/fellowship-opportunities/>

#### **Janelia Research Campus (HHMI) – Graduate Research Fellowship:**

<https://www.janelia.org/you-janelia/students-and-postdocs/graduate-research-fellowship>

#### **SIP in Biomedical Research, NIH (not open yet):**

<https://www.training.nih.gov/programs/sip>

#### **Opportunities at FDA for graduate and undergraduate students:**

<https://www.fda.gov/AboutFDA/WorkingatFDA/FellowshipInternshipGraduateFacultyPrograms/default.htm>