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# Harvard's Summer Internships for Undergraduates

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## **Summer Honors Undergraduate Research Program (SHURP) at Harvard Medical School**

SHURP is a ten-week summer research program primarily for college students belonging to groups that are underrepresented in the sciences. In addition to laboratory-based research with Harvard Medical School faculty, the program includes research and career development seminars and a peer mentoring program. Stipend, housing, and travel are provided. Administered by the Division of Medical Sciences (PhD programs office) at Harvard Medical School every year since 1991, SHURP is offered for currently enrolled undergraduates who are considering careers in biological or biomedical research sciences, who have already had at least one summer (or equivalent term-time) of experience in a research laboratory, and who have taken at least one upper-level biology course that includes molecular biology. U.S. citizenship or permanent residency is required. For more information, including a FAQ page, see <http://www.hms.harvard.edu/dms/diversity/shurp/>

## **Summer Research Opportunities at Harvard (SROH)**

Summer Research Opportunities at Harvard (SROH) is offered for currently enrolled undergraduates who are considering Ph.D. careers in the humanities, social sciences, and life/physical sciences and who have already had at least one upper-level course in their field of study. U.S. citizenship or permanent residency is required. Students must have at least one semester of undergraduate study remaining and not have received a bachelors degrees at the time of entry into the summer program.

Within SROH, students in the life/physical sciences will be placed with faculty in the Department of Molecular and Cellular Biology who are part of the Molecules, Cells and Organisms (MCO) Training Program and use a wide variety of techniques and experimental approaches to address important questions at the cutting edge of biology today. Students in the social sciences and humanities will work with faculty across a range of departments that will be related to their research interests.

In addition to research, there are a variety of supplemental activities including faculty lectures, weekly group meeting discussions of student research projects, career/professional development discussions and joint field trips with other Harvard summer programs. In addition, students are brought to the Leadership Alliance National Symposium at the end of July. Students in SROH will live in Harvard housing and a stipend along with housing and travel costs will be provided.

The 10 week program is a partnership with Harvard University's Senior Vice Provost Office for Faculty Development & Diversity (FD&D), Office of the Executive Vice President, the Graduate School of Arts and Sciences, and the Department of Molecular and Cellular Biology.

<https://gsas.harvard.edu/diversity/outreach-programs/summer-research-opportunities-harvard>

Email: SROH@fas.harvard.edu

## **Summer Program in Biological Sciences in Public Health**

The Summer Program in Biological Sciences in Public Health at the Harvard School of Public Health is a 8-week laboratory-based biological research program for undergraduates belonging to underrepresented groups during the summer following their sophomore or junior years. The program goal is to expose college science students (who will be juniors or seniors in the fall) to the rewards of laboratory research directed towards solving important public health problems such as infections (malaria, TB, parasites), cancer, lung diseases, multifactorial, multigenic and common diseases of aging, diabetes, obesity. Scientific approaches include regulation of cell growth and gene regulation, cellular metabolism, DNA modification, cellular signaling, and structure-function analyses. The overall mission of the program is to recruit qualified students for graduate-level training leading to research careers in the biological sciences.

<http://www.hsph.harvard.edu/academics/biological-sciences/undergraduate-summer-internship-program>

### **Summer Program in Epidemiology**

The Summer Program in Epidemiology at the Harvard T.H. Chan School of Public Health is an intensive four week introduction to Epidemiology, Biostatistics, and research methods in relevant areas of interest, such as Cancer Prevention, Infectious Disease, Epidemiologic Methods, etc. The program recruits undergraduates (and recent graduates not admitted to a graduate program) belonging to underrepresented groups for graduate level training. Aside from the introductory courses in Epidemiology and Biostatistics, students will participate in evening faculty lectures, a faculty or post-doctoral fellow led research project, and networking opportunities with current graduate students and faculty. The program covers travel, lodging, a stipend for living expenses, and frequent meals.

<https://www.hsph.harvard.edu/epidemiology/diversity/summer-program-in-epidemiology/>

### **Multidisciplinary International Research Training (MIRT) Program**

MIRT is a national program designed to encourage students to pursue careers in biomedical and behavioral research providing support for undergraduate and graduate students to do health-related population-based research and training in developing countries including in Zimbabwe, Ethiopia, Vietnam, Thailand, Republic of Georgia, Peru, Mexico, Ecuador, Chile, and Australia. Trainees get knowledge of scientific literature associated with projects, biomedical research ethics, and cultural aspects with a focus on how these aspects affect public health issues as well as scientific and medical issues. Research opportunities are designed collaboratively with faculty in these institutions to address health and health disparities pertinent to their countries.

<https://www.hsph.harvard.edu/epidemiology/diversity/hsph-mirt-program/>

### **Summer Program in Biostatistics & Computational Biology at the Harvard School of Public Health**

The Summer Program is an intensive 6-week introduction to biostatistics, epidemiology, and public health research. Based at the Harvard School of Public Health, this program is designed to introduce qualified undergraduates and post-baccalaureates to the use of quantitative methods for biological, environmental and medical research purposes, and to demonstrate the application of quantitative methods to the study of human health.

<http://www.hsph.harvard.edu/biostatistics/summer-program/>

### **Fostering Advancement & Careers through Enrichment Training in Science (FACETS) Program**

FACETS is a 6-week summer program based at the Harvard School of Public Health designed to provide participants with exposure to the range and applicability of public health. Participants will receive introductory lectures and coursework in epidemiology and biostatistics from faculty within the Harvard Chan School. Participants will receive a summer salary, housing, and travel funding.

<https://www.hsph.harvard.edu/diversity/facets/apply-for-facets-2016/>

### **FAS Center for Systems Biology Undergraduate Research Internships**

The FAS Center for Systems Biology at Harvard University invites interested undergraduates to apply for summer research internships. Internships will last for ten weeks (or longer by mutual agreement), and each intern will have the opportunity to learn a range of current techniques in the fields of systems biology, genomics, or bioinformatics in a small, interactive research group environment. Interns will also attend weekly group meetings and faculty lectures. The Center's researchers come from diverse backgrounds and fields of science, from biology (including genetics, cell biology and evolution) to applied mathematics and computation. The internship includes field trips to other local institutes, such as Harvard Medical School and the Broad Institute.

<http://sysbio.harvard.edu/csb/jobs/undergraduate.html>

### **Harvard Stem Cell Institute (HSCI) Internship Program (HIP)**

HIP provides an opportunity for Harvard and non-Harvard undergraduates to gain direct experience in stem cell research while working in a Harvard Stem Cell Institute (HSCI) laboratory under the supervision of an experienced researcher. Interns participate in a mandatory stem cell seminar series and a career pathways presentation, and present their summer research findings in the HIP Symposium in August. Candidates must express a strong interest in stem cell biology; previous lab experience is desirable, but not required. Approximately 35 students are selected by competitive review for this 10-week internship.

<http://www.hsci.harvard.edu/research/hsci-internship-program-hip>

### **Biological Chemistry and Molecular Pharmacology Summer Scholars Program**

The Biological Chemistry and Molecular Pharmacology (BCMP) Summer Scholars Program is a 10-week program designed to provide hands-on laboratory research experience to motivated undergraduates with a strong interest in pursuing graduate studies. In addition to having the opportunity to interact with faculty, post-doctoral fellows, graduate students, and other summer interns, selected students will attend weekly seminars presentations and work on strengthening their presentation, writing, and communication skills. A stipend is provided to the students as part of the program, but students are responsible for travel, housing, and meal accommodations.

<http://www.scholars.hms.harvard.edu/info>

### **Research Experience for Undergraduates (REU) at the School of Engineering and Applied Sciences**

The School of Engineering and Applied Sciences (SEAS) Research Experience for Undergraduates (REU) program is a mechanism for integrating a broad spectrum of undergraduates into bioengineering, materials research, nanoscience, and engineering. REU provides its interns with a coordinated, educational and dynamic research community to inspire and encourage them to continue on to graduate school. Summer research opportunities are arranged in conjunction with the Materials Research Science and Engineering Center (MRSEC), the Nanoscale Science and Engineering Center (NSEC), as well as other Harvard-based engineering and science entities. Professional development workshops, faculty seminars on research and ethics, and community activities are integrated into the program. Students receive a summer stipend and housing.

<https://reusite.seas.harvard.edu/application/>

### **The Banneker Institute and Aztlán Institute Summer Program**

The Banneker Institute and Aztlán Institute summer programs are full-time, ten-week research and study experiences. We prepare undergraduate students of color for top graduate programs in astronomy. The programs run simultaneously, focusing on research, professional training, and social justice education. We offer housing, a competitive stipend, and reimbursement for travel. Our programs target undergraduate juniors from backgrounds historically marginalized from academia and the astronomical sciences in particular. While we accept students from all backgrounds, our application review process considers historical injustices and the tendency for traditional application review practices to reproduce racial disparities in academia.

<http://bannekerinstitute.fas.harvard.edu>

### **Harvard Forest Summer Research Program in Ecology**

The Harvard Forest Summer Research Program in Ecology is a 11-week research program that allows students to participate in on-going research at the Harvard Forest in Petersham, MA. Projects focus on the effects of natural and human disturbances on forest ecosystems, including global warming, hurricanes, forest harvesting, and invasive organisms. Researchers come from many disciplines, and specific studies center on population and community ecology, paleoecology, land-use history, phenology, biogeochemistry, soil science, ecophysiology, and atmosphere-biosphere exchanges. Students work with mentors from Harvard and collaborating institutions. Responsibilities may include field sampling, laboratory studies, data analysis and scientific writing. In addition, students attend seminars given by nationally known scientists and workshops on career and graduate school preparation. At the end of the summer, students present their research results by writing an abstract and presenting their findings at a student research symposium. The program provides room, board and a competitive stipend.

<http://harvardforest.fas.harvard.edu/education/reu>

### **Harvard-Amgen Scholars Program**

Harvard-Amgen Scholars will conduct novel biotechnology-focused research with Harvard scientists over the course of a 10-week summer internship. While participating in the program, Amgen Scholars will live on Harvard's Cambridge campus among the residents of the Harvard Summer Undergraduate Research Village community. Interns will have the opportunity to interact closely with faculty through scholarly and pre-professional development activities including a Distinguished Faculty Lecture Series and Biotechnology Journal Club. They will also gain critical exposure to tools for effective science communication, proposal writing, and graduate school preparation, and will have opportunities to explore the Boston area through a variety of social activities and outings. Currently enrolled undergraduates interested in pursuing a bioscience Ph.D or the M.D./Ph.D are eligible to apply, especially those from underrepresented and diverse backgrounds. U.S. citizenship or permanent residency is required.

<http://uraf.harvard.edu/amgen-scholars>

### **Summer Undergraduate Program in Immunology at Harvard Medical School**

The Immunology Graduate Program at Harvard Medical School offers a 10 week Summer Undergraduate Program in Immunology. This internship program provides participants with a combination of weekly lectures and laboratory work with faculty from the Immunology Graduate Program, and includes extensive interactions with graduate students and postdoctoral fellows. The intent of this initiative is to provide undergraduate students with an exposure to current topics in immunology. Participants from colleges in which the topic is not taught or presented in depth are especially welcome, and individuals from under-represented minority groups are especially encouraged to apply. Preference will be given to students who are in their sophomore or junior year. [https://www.hms.harvard.edu/dms/immunology/prospective\\_students/summer\\_program.html](https://www.hms.harvard.edu/dms/immunology/prospective_students/summer_program.html)

### **Department of Biomedical Informatics and Health Sciences and Technology Summer Institute in Biomedical Informatics and Optics**

The Health Sciences and Technology Summer Institute in Biomedical Informatics and Optics is a nine-week program, sponsored by the National Institutes of Health and the National Science Foundation, that engages students with didactic classroom lectures by well-known leaders in biomedical informatics, while providing a mentored laboratory research experience. This program is ideal for undergraduate students with a strong quantitative background whose goal is to contribute to translational advances to biomedicine by pursuing a PhD, MD/PhD, or a research-oriented MD. U.S. citizenship or permanent residence status is required. A stipend, on-campus MIT housing, and a travel allowance are provided to students as part of the program. The internship program is conducted by the Harvard-MIT Division of Health Sciences and Technology in partnership with Massachusetts General Hospital, and the Department of Bioinformatics at the Harvard Medical School. <http://hst.mit.edu/academics/summer-institute/biomedical-informatics>

### **Continuing Umbrella of Research Experiences (CURE) at Dana-Farber/Harvard Cancer Center (DF/HCC) The Dana-Farber/Harvard Cancer Center (DF/HCC) Continuing Umbrella of Research Experiences (CURE)**

engages high school and undergraduate students from underrepresented minority populations in mentored cancer research internships in basic, clinical, nursing, and population sciences and cancer disparities. Alongside their hands-on research experiences, DF/HCC CURE participants attend scientific seminars and networking events, develop skills and experience in navigating research and medical literature and understanding and presenting research, obtain career and professional development counseling, and learn about issues and ethics in research. Each year several students are selected for CURE internships, which are delivered via 8- or 10-week full-time summer program or a two-year part-time experience. By participating in a program at DF/HCC — an NCI comprehensive cancer center with more than 1,000 researchers across seven Harvard institutions — CURE participants learn from experts who are devoted to preventing, treating, and curing cancer. The goal of DF/HCC CURE is to engage the scientific curiosity and promote the potential biomedical and/or cancer research careers of promising young high school and undergraduate students.

<http://www.dfhcc.harvard.edu/research/cancer-disparities/students/cure-program/>

### **Summer Research Trainee Program (SRTP) at Massachusetts General Hospital (MGH)**

The Summer Research Trainee Program (SRTP), which was founded in 1992, attracts college students who have completed at least three years and/or first and second year medical students from around the nation. The goal of this program is to inspire and develop students who are underrepresented in medicine (URM)\* to consider academic medicine and research careers by immersing them in cutting-edge research opportunities. Fifteen students, selected from a nationwide competition, join SRTP each summer. Students are assigned to specific Massachusetts General Hospital (MGH) laboratories or clinical sites where they undertake original research projects under the mentorship of an MGH investigator. Investigation opportunities exist over a broad range of disciplines, including clinical, basic science, health policy and health services research. Assignments are carefully considered and are made with the student's career interest in mind. In addition to the research experience, students will gain knowledge through weekly didactic seminars, both at the MGH and at Harvard Medical School, and have opportunities for clinical shadowing.

<http://www.massgeneral.org/mao/education/internship.aspx?id=5>

### **The Four Directions Summer Research Program**

The Four Directions Summer Research Program (FDSRP) is offered to Native American undergraduate students who are interested in becoming familiar with the medical and research community at Harvard Medical School and Brigham and Women's Hospital, and who are seriously committed to helping improve the health of their Native American communities. Established in 1994, this program has hosted over 170 participants. Interns engage in a wide range of research activities, work closely with advisors, clinical shadowing and participate in career seminars about MD and PhD admissions and programs.

<http://fdsrp.partners.org/>

### **Summer Training in Academic Research and Scholarship (STARS) Program at Brigham and Women's Hospital (BWH)**

The STARS Program provides underrepresented minority (URM) undergraduate and first year medical students with an opportunity to engage in basic, clinical and translational research projects during an 8 week summer program at Brigham and Women's Hospital (BWH) and Harvard Medical School (HMS)--with the goal of encouraging scholars to pursue advanced medical and graduate-level science training. The focus of internship activity is participation in a research project under the supervision of a medical school faculty mentor. Additional activities include "Research 101" education and training sessions, social networking opportunities, weekly roundtables with BWH Faculty and the Office for Multicultural Faculty Careers, and community health center/clinic shadowing.

<http://cfdd.brighamandwomens.org/events-and-programs/pipeline-programs/bwh-stars-program/>

### **Newborn Medicine Summer Student Research Program**

The newborn medicine summer student research program is sponsored by the Harvard Program in Neonatology for students interested in clinical aspects and research in Newborn Medicine. During the 8-12 week program, students are guided by faculty and fellow mentors from the program with the goal of providing undergraduate and medical school students with intensive clinical and laboratory research. As part of the program, the students will have the opportunity to observe newborn care in the hospital nurseries, clinics, and neonatal intensive care units. Partial funding is available for students participating in the program.

<http://www.childrenshospital.org/centers-and-services/departments-and-divisions/division-of-newborn-medicine/harvard-program-in-neonatology/summer-student-research-program>

### **Harvard Summer Research Program in Kidney Medicine**

The Harvard Summer Research Program in Kidney Medicine (HSRPKM) is an 8-week research-based experience that provides undergraduate students interested in science or medicine an introduction of nephrology and an overview of basic and clinical science. At the end of the program, students will have the opportunity to present their research at a national student symposium. The program is based at Harvard medical school and provides housing and a stipend to participants. Students must be U.S. citizens or permanent residents to participate in the program. Although research experience is preferred, it is not required.

<http://hskp.bwh.harvard.edu>