

## Programs at Harvard Faculty of Arts and Sciences:

### Systems Biology Undergraduate Research Internships

The Systems Biology community at Harvard University invites interested undergraduates to apply for 10 week long summer research internships. Each intern will have the opportunity to learn a range of current techniques in the fields of systems biology, biophysics, genomics, or bioinformatics in an interactive research group environment. Interns will also attend weekly group meetings and faculty lectures. The internship includes social events and field trips to other local institutes such as the Broad Institute. Intern projects are offered at both the FAS Center for Systems Biology and the Harvard Medical School Department of Systems Biology. <http://sysbio.harvard.edu/csb/jobs/undergraduate.html>

### The Molecules, Cells, and Organisms (MCO) Undergraduate Summer Internship Program for Minority Students

The Department of Molecular and Cellular Biology hosts 6 well-qualified undergraduate student interns for 8 weeks. Interns will work in the labs of prominent Harvard faculty on current research projects, developing investigative skills and techniques while learning about basic life sciences research and graduate school opportunities. Applicants must have completed at least 4 semesters of undergraduate work, and must be either sophomores or juniors in the year they apply. The program covers the cost of room and board; travel to/from the program, and a stipend. All candidates must be U.S. citizens or permanent residents; previous research experience is not required. <http://www.mcb.harvard.edu/Outreach/SummerInternship/>

### Leadership Alliance Summer Research Opportunities at Harvard

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. This 8 week program will be held in conjunction with the Harvard, EXROP, MCO, Systems Biology, and other Summer School Programs, in partnership with the Harvard University's Senior Vice Provost Office for Faculty Development & Diversity (FD&D) and the Leadership Alliance Consortium. SROH interns are placed in faculty labs in Cambridge spanning fields in the life and physical sciences. Their activities include weekly faculty lectures from departments in the Faculty of Arts & Sciences (FAS), weekly group meeting discussions of student research projects, and joint field trips with other Harvard summer programs. Students in the program will live in Harvard Summer School housing. The program will provide all research and course related expenses, room and board, travel to and from the program, as well as a stipend. <http://www.faculty.harvard.edu/preparing-academic-career/undergraduate-students/summer-research-opportunities-harvard-sroh>

**The Exceptional Research Opportunities Program (EXROP)** provides talented undergraduates from disadvantaged backgrounds with summer research experiences in the labs of Howard Hughes Medical Investigators and HHMI professors. The students are selected by HHMI professors and invited directors of HHMI-funded undergraduate programs at colleges and universities. EXROP students also attend meetings at HHMI headquarters where they present their research in a poster session, network with their peers and HHMI scientists, and hear from scientific researchers from various backgrounds and stages in their careers.

## Program at the Harvard School of Engineering & 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 for undergraduates 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 is provided. <http://eduprograms.seas.harvard.edu/reu.htm>

## Programs at the Harvard School of Public Health:

**Summer Program in Quantitative Sciences at the Harvard School of Public Health** is an intensive 4-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 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. Participants attend introductory courses in biostatistics and Stata, afternoon lectures led by HSPH faculty, and engage in group research projects that are mentored by HSPH faculty in biostatistics or epidemiology. Applicants should have some aptitude and interest in quantitative methods and an interest in public health as a career. <http://biosun1.harvard.edu/diversity/summer/spb-intro.html>

**The Summer Program in Biological Sciences in Public Health** at the Harvard School of Public Health is a 9-week laboratory-based biological research program for undergraduates belonging to underrepresented groups during the summer following their sophomore or junior years. Up to 6 internships will be awarded by a competitive process. 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 in biological sciences such as diabetes, asthma, infections, etc. 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>

## Programs at Harvard Medical School:

**Summer Clinical and Translational Research Program (SCTRP)** is a 10 week mentored summer research program designed to enrich the understanding of undergraduate students--especially those from under-represented minority and economically disadvantaged groups-- in clinical and/or translational research. In addition to a mentored clinical/translational research experience, SCTRP students participate in weekly seminars with Harvard faculty and graduate students focusing on topics such as research methodology, health disparities, ethics, career paths, and the graduate school and medical school application process. Interns also have the opportunity to participate in offerings of other Harvard Medical School programs such as career development seminars and networking dinners. Program participants are provided with housing, a stipend, and financial assistance of up to \$400 toward travel expenses. Eligible candidates are undergraduate sophomores, juniors and seniors with U.S. citizenship. <http://www.hms.harvard.edu/dcp>

**Summer Biomedical Informatics Training Program** is a new 8 week paid internship program for undergraduate students interested in a biomedical informatics career sponsored by the Center for Biomedical Informatics (CBMI) HMS. Interns are provided with a CBMI mentor and research project, participate in seminars and visit affiliated laboratories. Presentations of written and oral summary project reports are required at the end of the summer. Participants must be junior or senior undergraduates, and must be United States citizens or permanent residents of the United States. Applicants from diverse and/or underrepresented racial and ethnic groups are welcome; a computer science background is mandatory as well as an interest in biomedicine. Students will receive a weekly stipend. <https://cbmi.med.harvard.edu/>

**Summer Honors Undergraduate Research Program (SHURP)** is a ten-week summer research program primarily for college students belonging to groups that are under-represented in the sciences. Administered by the Division of Medical Sciences at Harvard Medical School, 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. <http://www.hms.harvard.edu/dms/diversity/shurpintro.html>

**Summer Undergraduate Program in Immunology 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. <http://www.hms.harvard.edu/dms/immunology/SummerProgram.html>

### HST-i2b2 Summer Institute in Bioinformatics

The Informatics for Integrating Biology and the Bedside National Center for Biomedical Computing based at Partners HealthCare has collaborated with HST and MIT to sponsor a nine week Summer Institute Program in Bioinformatics and Integrative Genomics (BIG), offering a combination of didactic learning, tutorial discussions, and laboratory research projects with nationally recognized leaders from the biomedical sciences, clinical medicine, engineering, computer science, genomics, bioinformatics and epidemiology. The BIG Summer Institute Program offers a unique opportunity for outstanding and highly motivated rising college students considering a career in the life sciences to gain hands-on research experience and exposure to the opportunities afforded by graduate education and clinically oriented research. <http://hst.mit.edu/>

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

HIP provides an opportunity for 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 stem cell seminar series and a career pathways presentation, and present their summer research findings in the HIP Symposium. Candidates must express a strong interest in stem cell biology, but not necessarily have previous lab experience. <http://www.hsci.harvard.edu/research/hsci-internship-program-hip>

## Programs at HMS Affiliated Institutions:

**Summer Training in Academic Research and Scholarship (STARS)** provides underrepresented minority (URM) medical and undergraduate students an opportunity to engage in exciting basic, clinical and translational research projects during the summer at Brigham and Women's Hospital (BWH) and Harvard Medical School (HMS), enhances the research capabilities of URM medical and undergraduate students, as well as encourages pursuit of advanced medical and graduate education and training at BWH and HMS. Students are assigned a faculty advisor who will work closely with the student to ensure engagement in a project over the 8-week summer period. <http://www.brighamandwomens.org/CFDD/OMC/STARS.aspx>

**Four Directions Summer Research Program at Harvard Medical School** is offered to Native American undergraduate students and is run by Native American medical student members of the Native American Health Organization at Harvard Medical School. The FDSRP welcomes applicants who are interested in becoming familiar with the medical and research community at HMS, and who are seriously committed to helping their Native American communities. Interns engage in a wide range of research activities, work closely with advisors, and participate in career seminars about MD and PhD admissions and programs. <http://www.fdsrp.org/>

**Joslin Diabetes Summer Research Program:** Researchers at Joslin welcome the participation of undergraduate and medical students in projects aimed at introducing students to the methods of diabetes-related scientific investigation. In addition to performing experimental research, a noontime seminar series provides an opportunity to meet other students, learn about some of the research performed at Joslin from some of its leading scientists, and for students to present their own research finding in an informal setting. <http://www.joslin.org>

**The Summer Research Trainee Program (S RTP) at Massachusetts General Hospital (MGH)** provides underrepresented minority students with an eight week overview of opportunities available in biomedical research and clinical medicine. Students are assigned to MGH laboratories or clinical sites where they undertake original research projects and prepare oral or written presentations of their work under the mentorship of an MGH investigator. The program is open to underrepresented minority students who have completed at least three years of college and/or first and second year medical students. <http://www.massgeneral.org/mao/summer.html>

**Newborn Medicine Research Program at Children's Hospital** provides students with intensive laboratory or clinical research experience under the guidance of mentors from the division of Neonatology. Students have opportunities to observe health care teams for patients in the newborn nursery, labor and delivery, neonatal intensive care units, and infant follow-up clinic. Students participate in weekly "bedside-to-bench" rounds; this highly interactive tutorial is designed to provide students with insight into how basic, applied or epidemiological research is used to enhance our understanding of complex clinical problems. The duration of the summer program is determined by the students and mentor (typical summer sessions last 8-12 weeks June through August). <http://www.childrenshospital.org/clinicalservices/Site1930/mainpageS1930P14.html>

**Continuing Umbrella of Research Experiences (CURE) Program Dana-Farber/Harvard Cancer Center (DF/HCC)** introduces high school and college students from underrepresented minority populations to the world of cancer research. Each year several students are selected for CURE internships, which are delivered via a 9 week full-time summer program or a 2 year part-time experience. Participants are assigned individual advisors and do hands-on cancer research work as well as attend seminars, obtain career/professional development counseling, and learn about issues and ethics in research. Applicants must demonstrate an interest in pursuing a biomedical or health-related career. <http://www.dfhc.harvard.edu/center-initiatives/iecd/student-training/cure-program/>

## Program at the Harvard School of Dental Medicine

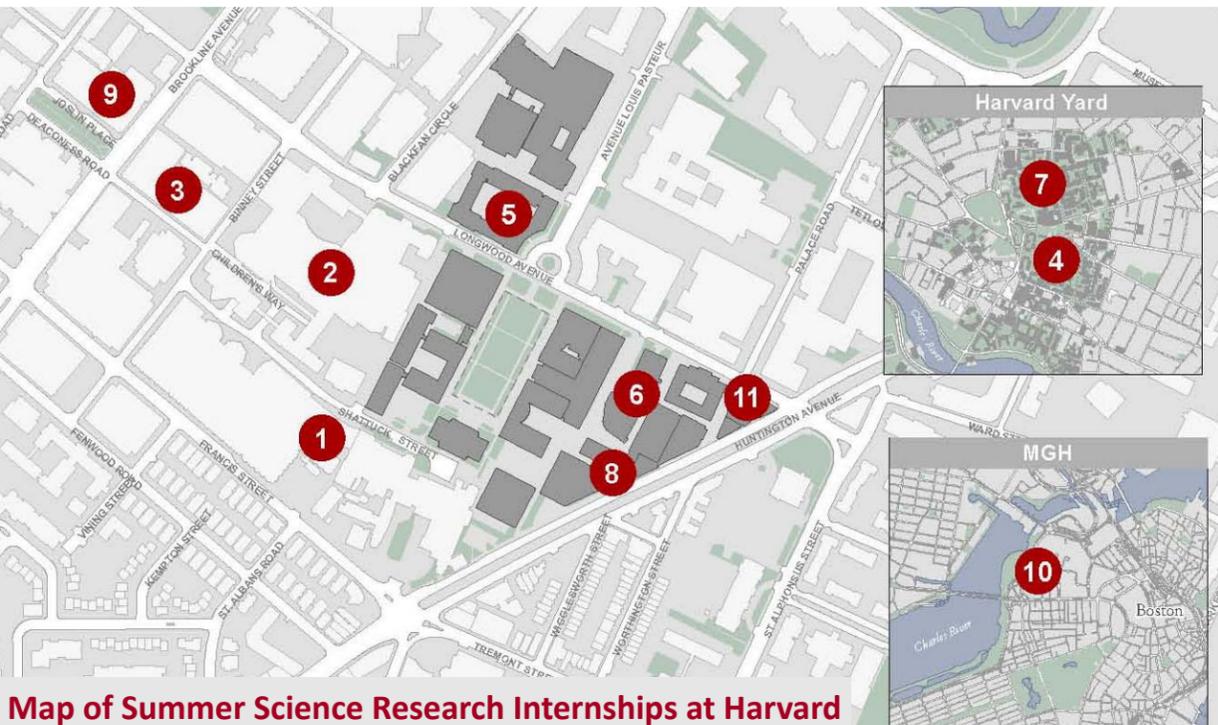
**Dental Summer Research Program at the Harvard School of Dental Medicine** is an eight-week, paid summer research program for undergraduate students, particularly those from underrepresented minority groups, who are considering careers in dentistry and are interested in enhancing their background in research. Each year, two students are selected; each participant is assigned a faculty member at HSDM who serves as a research mentor to supervise the student's research project in basic science or public health epidemiology. For more information contact [anne\\_berg@hsdm.harvard.edu](mailto:anne_berg@hsdm.harvard.edu)

## Programs for Medical Students:

**The Pre-Matriculation Summer Program at Harvard Medical School** exposes entering underrepresented students to research and its relevance to clinical medicine. Through laboratory investigation, seminars and coursework, students gain a better understanding of career options in academic medicine. PMSP provides a vital service by fostering student interest in academic medicine and providing a mechanism for URM students and faculty to exchange ideas and interests. Students accepted into the program will be known as Pfeiffer Fellows and will be encouraged to participate in other Pfeiffer sponsored initiatives. The Pre-Matriculation Summer Program does not require prior research experience. Entering first year students to Harvard Medical or Dental School are eligible to apply to the PMSP. Applicants must be U.S. citizens or permanent residents. <http://www.hms.harvard.edu/orma/pmsh.html>

**Harvard Catalyst Visiting Research Internship Program (VRIP)** is an 8-week mentored, summer research program open to First and Second year U.S. medical students, particularly underrepresented minority and/or disadvantaged individuals from accredited U.S. medical schools. VRIP offers students housing as well as a stipend and transportation reimbursement for travel to and from Boston. VRIP is designed to enrich medical students' interest in research and health-related careers, particularly clinical/translational research careers. <http://www.hms.harvard.edu/dcp>

**The Visiting Clerkship Program (VCP)**, sponsored by the Harvard Medical School Minority Faculty Development Program, is open to 4th-year and last quarter 3rd-year minority medical students in good standing at U.S. accredited medical schools who wish to participate in a clerkship in any discipline at Harvard Medical School (HMS) affiliated hospitals. Housing and financial assistance towards transportation expenses to and from Boston are available. Students are assigned a faculty advisor, provided the potential to network with HMS residency training programs and have access to the medical school library, seminars and workshops. Clerkships are offered year-round. Applications must be submitted 3-6 months in advance of the desired rotation. [www.mfdp.med.harvard.edu](http://www.mfdp.med.harvard.edu)



**Map of Summer Science Research Internships at Harvard**

**Programs at Brigham & Women’s Hospital**  
 (Location 1 on map)  
 Summer Training In Academic Research and Scholarship (STARS)  
 Four Directions Summer Research Program

**Program at Children’s Hospital**  
 (Location 2 on map)  
 Newborn Medicine Research Program

**Programs at Dana Farber Cancer Institute**  
 (Location 3 on map)  
 Continuing Umbrella of Research Experience (CURE)

**Programs at Harvard Faculty of Arts & Sciences**  
 (Location 4 on map)  
 Systems Biology Undergraduate Research Internships  
 The Molecules, Cells, and Organisms (MCO) Summer Internship  
 Leadership Alliance Summer Research Opportunities at Harvard  
 The Exceptional Research Opportunities Program (EXROP)

**Programs at Harvard HMS**  
 (Location 5 on map)  
 HST-i2b2 Summer Institute in Bioinformatics  
 Harvard Stem Cell Institute (HSCI) Internship Program (HIP)  
 Summer Clinical and Translational Research Program (SCTRP)  
 Summer Biomedical Informatics Training Program  
 Summer Honors Undergraduate Research Program (SHURP)  
 Summer Undergraduate Program in Immunology  
 Harvard Catalyst Visiting Research Internship Program (VRIP)  
 The Pre-Matriculation Summer Program at Harvard Medical School

**Programs at Harvard School of Dental Medicine**  
 (Location 6 on map)

Dental Summer Research Program at the Harvard School

**Program at Harvard SEAS**  
 (Location 7 on map)

Research Experience for Undergraduates (REU)

**Programs at Harvard School of Public Health**  
 (Location 8 on map)

Summer Program in Quantitative Sciences  
 The Summer Program in Biological Sciences in Public Health

**Program at Joslin Diabetes**  
 (Location 9 on map)

Joslin Diabetes Summer Research Program

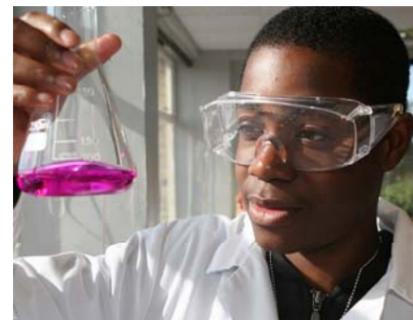
**Program at Massachusetts General Hospital**  
 (Location 10 on map)  
 The Summer Research Trainee Program (SRTP)

**Program at HMS Office for Diversity and Community Partnership**  
 (Location 11 on map)

The Visiting Clerkship Program (VCP)

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**MENTORS**

*Students benefit from the daily experience of learning from and collaborating with Harvard Faculty, clinicians, postdoctoral fellows, graduate students, medical students, and others who are farther along their career paths.*



**REAL WORLD RESEARCH:**

*Students experience the excitement of gaining hands-on experience with novel research projects at major medical centers and laboratories.*



**CAREER DEVELOPMENT AND COUNSELING:**

*Via career development seminars and networking, students gain an in-depth view of career paths and professional opportunities. Students also meet with admissions representatives of the medical, dental, and graduate school admissions offices.*

**COMMUNITY:**

*Harvard-Wide events such as the Summer Programs Dinner allow Students to engage and network with hundreds of their peers: a wide variety of talented, motivated students from all ethnic, geographic, educational, and economic backgrounds.*



For more information, please contact:  
 617-432-1892 or  
 Pfdd\_dcp@hms.harvard.edu



**Summer Science Research Internships at Harvard**

**HARVARD MEDICAL SCHOOL DCP THE OFFICE FOR Diversity & Community Partnership**