

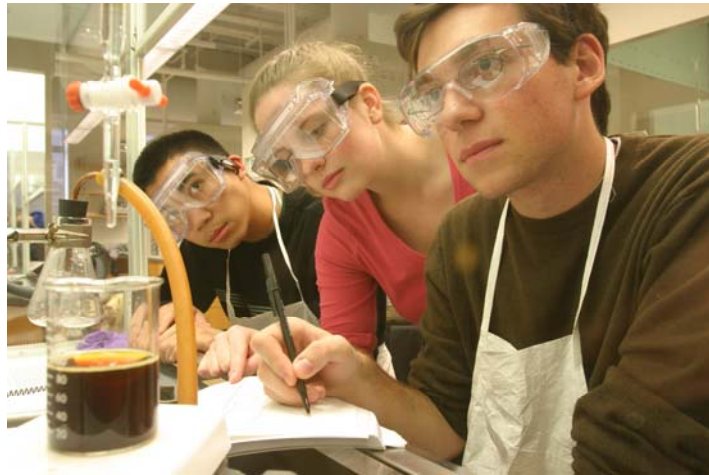


BROWN

**Boldly Brown:
Campaign for
Academic
Enrichment**

Undergraduate Teaching and Research Awards

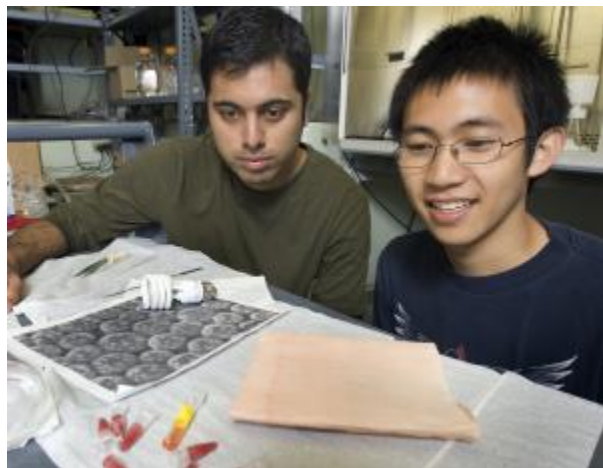
A Case for Support



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Undergraduate Research: Celebrating Discovery

Whether the work takes place in the dust of a Turkish village or in a dish of proteins refrigerated in the Life Sciences building, Brown University meets its undergraduates' intellectual curiosity with a rich array of research opportunities. As a short list of their recent research confirms—*hyperbolic geometry, molecular beacons, Homeric encyclopedias, terrorist financing*—Brown's reputation for academic freedom attracts innovative, enterprising undergraduates. With these opportunities, students are directing and deepening their academic study, forming life-changing collaborations with professors, and establishing a vision for life beyond Brown.



Undergraduate research support is available through programs administered by the Dean of the College, including Undergraduate Teaching and Research Awards (UTRAs) and the Dean's Undergraduate Research Fund. An UTRA offers students the opportunity to work closely with a faculty member on a carefully designed research project or curricular innovation, while the Dean's Undergraduate Research Fund covers costs for students pursuing a variety of research endeavors. An UTRA provides a fixed stipend for a specified project timeframe, usually 35 hours a week for ten weeks during the summer or 10 hours a week for

a semester; the Dean's Fund provides grants of \$500 and up to defray the costs of the equipment, material, or travel associated with research initiatives, including capstone projects, senior theses, and other research projects—even UTRAs. Funding is available for both individual and team collaborations, and includes opportunities for international research projects.

Participating in undergraduate research at Brown may shape a student's career trajectory; an UTRA or a Dean's Fund grant at age 19 could lead to an honors project, a career in research or academia, or to real contributions in the science or humanities. Yet the benefits of a research experience are also more immediate: creating a campus culture of serious, original thought; fostering student confidence and curiosity; and enabling life-changing student-faculty collaborations. At a university that celebrates discovery and free inquiry, undergraduate research is part of what makes Brown "Brown."

Life-Changing Experiences

Students treasure the rich rewards of these experiences. Lea Mouallem '08 wondered if there was a way to save the thousands of dollars and several months' time that hospitals spend diagnosing whether a patient has an excess of a specific protein isoform. With the support of an UTRA and important guidance from Professor Anubhav Tripathi, she created an experiment to test the adsorption kinetics of two protein isoforms, and spent the summer of '07 perfecting her protocol. The project kindled in Mouallem a clear-eyed passion for research: "Science is not glamorous, and its accomplishments are not



spontaneous and sudden... [I] appreciate every small step forward.” Yet her UTRA experience proved to be more than just educational. Lea intends to continue the project in order to obtain publishable results, and the implications of her work will help to simplify the genetic tests performed on patients to detect Alzheimer’s, cardiovascular and autoimmune diseases, as well as different types of cancers.

Students initiate research projects across all the disciplines. Anne Wootton ’08 received travel funds in support of her project, “Abraham Lincoln’s Classical Influence.” Anne’s work breaks new ground because she isn’t simply considering classical authors Lincoln may have read; she is searching for his marginalia in the actual books that Lincoln touched at the Library of Congress and the Abraham Lincoln Presidential Library. She plans to compare his marks and notations in the classical texts to his writing and speeches. According to classics professor Joseph Pucci, Anne’s project is expected to make “a truly significant contribution to its field.”



Expanding opportunities for international research lend students’ work a global perspective—from Ethiopia to Macedonia, Spain to American Samoa—and are often the defining experience in a student’s undergraduate years. “I cannot possibly separate my Brown experience from this field experience. The two have been complementary, and the university has been enormously supportive,” attests Caitlin Cohen ’08 MD’12, who received the first of two Dean’s Fund grants in 2005, when she went to Mali to perform AIDS vaccine research. In

Mali, she became interested in how a community organizes around health issues, and received a second Dean’s Fund grant in 2006 to develop the Mali Health Organizing Project (MHOP), which creates homegrown health care solutions to problems ranging from malaria to nutritional deficiencies. Caitlin, along with fellow Brown students Lindsay Ryan ’06 and Erica Trauba ’08, worked to create a model in which slum residents and Malian government entities, groups that do not traditionally have a good working relationship, invest together in health and development. Today, MHOP is a nonprofit organization focusing on microfinance, health, and women’s empowerment, with many partners in Mali and the United States, and because of her work on this project, Caitlin Cohen was included in *USA Today*’s 2008 All-USA College Academic Team.

Embracing the freedom Brown gives students to direct their education, Wilfredo Pérez Jr ’08 used his UTRA to become significantly involved in the teaching process. Perez spent the summer and fall of his senior year working with Adjunct Associate Professor of Anthropology Patricia Symonds to redesign the course “AIDS in International Perspective.” Pérez, who will continue his Brown education at the Warren Alpert Medical School, digested twelve texts on issues of HIV/AIDS and used his research with Professor Symonds to help restructure the class syllabus and design new class assignments and discussions. Teaching assistantships help define a student’s abilities in new ways: for instance, Pérez’s UTRA culminated not in an exam but in an 80-minute lecture on health and human rights that he crafted and delivered to fellow undergraduates in



the course. “I could not have asked for a greater experience,” he recounts of his collaboration with Professor Symonds. “I felt as though I was working with the professor and not for her.”



Professor Paul Buhle’s class, “Theory and Methods of Oral History” is another great example of how the benefits of an UTRA or Dean’s Fund grant can continue to resonate in the curriculum even after the awardees have graduated.

Beginning in 2003, students in this American Civilization course proposed for their own oral history work a new direction that took them into the streets of Providence, collecting the stories of counter-culture artists, musicians, writers, performers and activists in Rhode Island. They interviewed, among others, the founder of the area’s first African-American acting troupe, the author of the *Dictionary of the Avant Garde*, and the inventor of a medium called Tape Art. With funding in part from two UTRAs,

the research project—and the oral history class—have evolved into what Professor Buhle calls “the boldest effort of Brown students to engage the community in this way.” Recently, Yesenia Barragan ‘08, Sarah Bird ‘07, Fokion Burgess ‘08, and Nolan Shutler ‘06 received a group UTRA to create an online museum, Underground Rhode Island; the exhibits, which students in Buhle’s future classes will undoubtedly expand, display their pioneering investigations into the alternative arts and cultures of Brown’s home state.

A Fundraising Priority

Time and again, Brown alumni point to undergraduate research in the lab and in the field, and other creative projects, as the most significant—and innovative—learning they experienced at Brown. And students are not the only ones trumpeting these opportunities. More than 80% of Brown’s faculty members have participated in UTRAs or advised students seeking grants from the Dean’s Fund; many comment that supporting undergraduate research was a meaningful teaching experience and that students have made vital contributions to their own research.

UTRAs and Dean’s Undergraduate Research Funds are awarded on a competitive basis, and the number of bright, inquisitive students seeking funding to realize their ideas continues to grow. In fact, the demand now vastly exceeds the supply. To some extent, this is due to the culture of the school; many students choose Brown precisely for its undergraduate research opportunities, and the university, in turn, actively cultivates these opportunities. Too, many multi-disciplinary concentrations at Brown now require students to complete a capstone project or senior thesis, and these endeavors often require materials or travel that can be beyond students’ means. Currently about 25% of non first-year students are or have been involved in paid research programs at Brown—a large number compared to many of Brown’s peers, but far lower than the amount sought by both its students and faculty. In the 2007-2008 academic year, Brown awarded 238 UTRAs. “The goal,” says Dean of the College Katherine Bergeron, “is to double that number.”

As the university sharpens its commitment to financial aid, its need for strong undergraduate research support also grows. Brown is taking extraordinary steps to attract and retain the most highly qualified and diverse student body, and must likewise ensure that those students have the

financial support to participate in research projects. Expanding undergraduate research funding also becomes imperative as Brown's science and public health research continues to garner international attention. Recognizing these areas of need, as well as the ongoing demand in the social sciences and humanities, particularly for semester-long research projects, the University has made undergraduate research one of its highest fundraising priorities.

Dean of the College Katherine Bergeron says: "Brown undergraduates continue to amaze us with their drive, talent, and vision. We owe it to them to increase the resources available for these unique research opportunities."

Endowed Giving Opportunities

Undergraduate Teaching and Research Awards (UTRAs): **\$50,000**

Your gift of \$50,000 will endow one UTRA, providing support for one student per year for a summer or three students for a semester of collaborative research and/or teaching activities with an individual faculty member.

Dean's Undergraduate Research Funds: **\$50,000**

Your gift of \$50,000 will give the Dean's office, in perpetuity, the flexible resources to fund material, travel, or equipment costs that a student needs to pursue a research project.

International Undergraduate Teaching and Research Awards: **\$100,000**

Your gift of \$100,000 will support one student per year for a summer of international research and/or teaching activities in collaboration with an individual faculty member.

Undergraduate Research Program Funds **\$250,000-\$5,000,000**

Your gift of \$250,000 will endow five UTRAs; your gift of \$500,000 will endow six UTRAs and many grants by the Dean's Fund; your gift of \$1,000,000 will endow 10 International UTRAs, and so on. Your generosity will ensure the continued vitality of undergraduate research for generations to come.

Making a Difference

Brown's unique curricular flexibility encourages the crossing of traditional boundaries between students and faculty, and between departments and disciplines. Students are free to conduct their own investigations, enlist faculty guidance on student-initiated undertakings, or join a faculty's research team. Neale Mahoney, whose UTRA work combined mathematics, economics, and international studies as he investigated diamond conflicts in Sierra Leone explained, "I was passionate about my subjects because I picked them myself." Borne out of this environment are the undergraduate research opportunities described here. Whether the students act as high-level research or teaching assistants to their faculty mentors, ask these mentors to become collaborators on a student-inspired project, or engage in independent research activities, these opportunities enhance Brown's research profile, course offerings, and undergraduate experience.

