

Guidelines for Faculty Mentors

Howard Hughes Medical Institute Undergraduate Research Fellowship Program College of Computer, Mathematical, and Natural Sciences University of Maryland

The Howard Hughes Medical Institute (HHMI) has selected the University of Maryland as the recipient of \$9.4 million in grants in support of undergraduate education in the biological sciences. Maryland was identified as an institution "with a demonstrable record in preparing students for graduate education and careers in research, teaching, or the practice of medicine."

The Undergraduate Research Fellowship Program supports the independent research activities of undergraduate students under the direct supervision of a faculty investigator/mentor. The objectives of the program are (1) to provide research opportunities for undergraduate students, particularly for underrepresented minorities in science, (2) to allow students to experience the investigative process and demonstrate their aptitude for research, (3) to develop a close collaboration between a student and a faculty mentor, and (4) to strengthen the conviction of the student's career choice. Fellowships are awarded for periods of up to one year and are renewable. Mentors are expected to assist in the formulation of a project and the submission of the proposal, to interact frequently with the student, to supervise the student's research, to assist with the preparation of a final report and, where applicable, to fulfill the duties of a "major professor" during the writing and defense of an Honors thesis.

These guidelines attempt to address many of the questions that faculty mentors have about the Undergraduate Research Fellowship Program. The most recent version of this document, as well as the guidelines that are distributed to students, are available from our website <http://hhmi.umd.edu>. If you have other questions about the Undergraduate Research Fellowship Program or any of the other programs sponsored by HHMI, please don't hesitate to contact the Program Director, Dr. Kaci Thompson.

Student fellowship stipends

Fellowship stipends are paid to the student biweekly based upon the hours that they have worked on their project. Students must record their hours on an electronic timesheet, which is approved on a biweekly basis by the HHMI Program Director. **The HHMI Associate Program Director should be notified if the student takes a leave of absence from their research or otherwise fails to fulfill his or her research obligations.** In order to help the students manage their stipends and to ensure that students do not overextend themselves by spending inordinate amounts of time in the laboratory, our fellowship guidelines stipulate payment for approximately 10-12 hours per week while school is in session and about 30 hours per week during the summer. **Under no circumstances can students be paid to work more than 20 hours per week during academic sessions and 40 hours per week during breaks from school. Failure to abide by these guidelines may result in termination of their fellowship.** We ask your cooperation in seeing that students stay within the guidelines.

Student research funds

Students are awarded up to \$1000 to help defray the costs of conducting their research. Currently, these research funds must be managed through accounts in the CMNS Business Services Office and cannot be transferred directly to a faculty member's departmental account. However, supplies and equipment ordered through HHMI can be delivered wherever you desire. Order forms are available for downloading from <http://hhmi.umd.edu/>. For assistance with placing supply orders, contact Fabiola Mijares in the College of CMNS Business Services Office, 2322 Symons Hall (phone: 301-405-3452; email: fo@umd.edu). She can place and pay for the order using the CMNS credit card, and will contact you or your student in the event of a problem with the order.

Capstone research presentation awards

All HHMI Undergraduate Research Fellows are eligible to apply for funds to help defray the costs of traveling to a professional meeting to present their research results (up to \$1200). Fellows should apply for travel funds at least one month prior to anticipated travel and can work with the staff of the CMNS Business Services Office (2326 Symons Hall) to make their travel arrangements. Application forms are available online at <http://hhmi.umd.edu/>. Please keep students informed of potential opportunities to present their research results.

Obligations of Fellowship Recipients

As part of our obligation to the Howard Hughes Medical Institute, which provides the funding to sponsor this program, we ask that each Fellow participate in the annual poster session and submit periodic progress and final reports. I may also call on them from time to time to meet informally with current and prospective students who are interested in learning more about undergraduate research. We also host special symposia and workshops from time to time. Their attendance there is expected as their schedules permit.

Poster: Undergraduate Research Fellows will be asked to prepare and present a poster at the HHMI Undergraduate Research Symposium, which occurs in conjunction with the annual campus Undergraduate Research Day (late April). There are also opportunities to present at other campus events such as Bioscience Day (November).

Semester Progress Reports: Undergraduate Research Fellows are required to submit brief progress reports in May and December of each year, to assist us in maintaining program records and preparing annual reports to the Howard Hughes Medical Institute. These reports are to be submitted online and a reminder will be sent out to all Fellows when the report is due.

Service Expectation: As a recipients of this prestigious award, our expectation is that students will share their enthusiasm for science with others. We are developing a number of different opportunities for Fellows to participate in outreach programs to the community and will be distributing information about these opportunities early next year. These may range from serving on campus open house panels to developing science education materials for local schools. Fellows will be expected to report on their service activities in their progress reports and participation in service activities will become a qualification for renewal of HHMI Fellowship awards.

Final Report: At the end of their final fellowship term, each HHMI Undergraduate Research Fellow is required to submit a formal report in the form of a scientific paper (Introduction,

Methods, Results, Discussion, Literature Cited). This report should summarize the research conducted as an HHMI Undergraduate Research Fellow. Manuscripts submitted for publication and/or departmental Honors theses may be submitted in lieu of a final report.

Acknowledgment: The HHMI requests that the following attribution is included in any publication of scientific research supported by the Institute: "This program was supported in part by a grant to the University of Maryland from the Howard Hughes Medical Institute through the Science Education Program." We recognize that papers resulting from research done by HHMI Fellows may not be published until after they have graduated, therefore we ask that you keep us informed of any publications on which they are co-authors.

We Welcome your Feedback

If you have any questions regarding the Undergraduate Research Fellowship Program or any of the HHMI sponsored programs at the University of Maryland, please feel free to contact me. I am also open to any suggestions you might have about the program.

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