

Wattis Dumke Undergraduate Research Fellowship in Biological Sciences

Summary:

The USC Dornsife College of Letters, Arts and Sciences Department of Biological Sciences invites applications for an undergraduate research fellowship for students interested in engaging in an independent research project in Fall 2018. Funding for this undergraduate research fellowship program is provided from the Wattis Dumke Foundation. This program will provide fellowships between \$1,000 and \$3,000 each for students conducting research with a faculty member in Biological Sciences. The Wattis Dumke Undergraduate Research Fellowship program is intended to introduce undergraduate students to the challenges and excitement of research. Students will gain skills in research design, data collection and analysis, teamwork, and communication. These research experiences will impact students as they prepare for professional careers by providing insight into career paths and a deeper understanding of science.

A major goal of this program is to provide financial assistance for undergraduate students in majors within the Biological Sciences who might otherwise not be able to participate in laboratory research because they need to work on or off campus to cover educational expenses. It is hoped this fellowship program will stimulate more students to engage in research activities by providing funding in lieu of working for one semester.

A Wattis Dumke Undergraduate Research Fellowship Selection Committee will review each fellowship application. Selection is based on the academic strengths of the student applicant, the quality of the proposal, the merit of the learning goals, financial need of the student, and the recommendation of the faculty mentor.

Students will submit a final research report at the end of the semester. Faculty, post-doctoral scholars, and/or graduate students will evaluate the student's work. The fellowship recipients will provide a testimonial letter to the Wattis Dumke Foundation describing their work and its impact at the end of their project.

Funding Guidelines:

- The amount of the stipend is from \$1000 up to \$3000 in the Fall 2018 semester towards **course or non-course related, faculty-directed research** activities.
- The primary purpose of the stipend is to compensate the student researcher for the time they spend on their research project. The student may then use their fellowship earnings to offset the cost of transportation, parking or other expenses. The Wattis Dumke Undergraduate Research Fellowship fellowships cannot directly fund the purchase of equipment or compensate third parties.

- As part of the application, the student should provide an estimated accounting of hours spent working in the lab per week.
- The stipend is a single payment credited to the student's university account. **This action may initially affect the student's financial aid award.** If this happens, the student must contact their financial aid officer to work out the payment of the Wattis Dumke Undergraduate Research Fellowship award.
- If the student fails to complete the project successfully or fails to meet research obligations with a professor's project, and a final approval is denied by the student's faculty mentor, the funds will be withdrawn and the award will be charged to the student's university account.

A fellowship recipient may hold only one award at a time.

Eligibility Requirements

Any undergraduate student who is a declared BISC, HBIO or QBIO major is eligible to apply for research support under this program. Students may be enrolled in a directed research course or honors thesis, but enrollment in these courses is not required.

Qualifications for the Wattis Dumke Undergraduate Research Fellowship:

- Declared BISC, HBIO or QBIO major in the Department of Biological Sciences.
- Full-time enrollment at USC for the entire academic year.
- A recipient of the Provost Fellowship (PURF) or SOAR will not be contemporaneously considered for a Wattis Dumke Undergraduate Research Fellowship (likewise with other funding; a student's *total* funding sources should not exceed \$3000.)
- 3.0 cumulative USC GPA or better **and** a 3.0 science GPA or better.
- Each student must have Biological Sciences faculty mentor.

Biological Sciences Faculty Mentor

A vital part of the undergraduate student research experience is the interaction between the student and the faculty mentor prior to submission of a research proposal and throughout the project period. The faculty mentor must meet one of the following criteria:

1. Tenured or Tenure-Track in Biological Sciences
2. Non-Tenure Track with a research profile in Biological Sciences
3. Professional School faculty member with a joint appointment in Biological Sciences

For assistance in finding a faculty mentor, please contact Dr. Grayson Jagers jagers@usc.edu.

Faculty Mentor Reference Letter

1. Faculty mentors are expected to review the student's application prior to submitting the application, and to help guide the student to make it understandable to an inter-disciplinary group.
2. The letter should indicate support for the student and their project and justify that recommendation. The letter should also discuss the learning objectives listed in the student's proposal and indicate work to be done by the faculty mentor to ensure that those learning objectives are met.

Selection Criteria

Competitive proposals will be ranked using the selection criteria outlined below. The Wattis Dumke Undergraduate Research Fellowship Selection Committee intends to fund all competitive proposals.

- Clearly stated hypothesis, thesis or outcomes; describe what you hope to accomplish during the course of your research fellowship.
- Clearly stated motivation for the study.
- Clear statement of the project's significance. Provide enough background to contextualize your thesis, hypothesis or outcomes.
- Description of a feasible research plan (methods, techniques, sequence of events).
- Specific and strongly supportive letter of recommendation from the faculty mentor.
- Relevance of student's prior preparation.
- Strength of student's academic record.

Compliance

Students working in a laboratory must complete a General Lab Safety training session at USC. Training is offered once a week. Students may enroll in general lab safety training courses through TrojanLearn. Refer to the Environmental Health & Safety training registration website <https://ehs.usc.edu/training/registration/> for more information.

Application Process

All requests for Wattis Dumke Undergraduate Research fellowship support must be in connection with a specific project which can be adequately described in the application. Please use the Wattis Dumke Undergraduate Research Fellowship Application available on the Biological Sciences website for forms: <http://dornsife.usc.edu/bisc/bisc-undergraduate-forms/>

Students should prepare the application with faculty guidance and must obtain a letter of recommendation supporting the project from their project advisor. Completed application forms must be signed by the project adviser.

Wattis Dumke Undergraduate Research Fellowship applications will be accepted online via a Qualtrics form using the following link:

https://usccollege.qualtrics.com/jfe/form/SV_3VIs7vITo9zQKB7

Please review the application checklist below and follow the steps when you are ready to submit your application. All application materials including the letter of recommendation from your faculty mentor must be received by **noon, Monday 1 October, 2018**.

Application Checklist

Please submit your fellowship application with all of the following materials by the listed deadline. Please submit one application person. **Late or incomplete applications will not be considered.**

A complete application consists of the following documents. These documents should be uploaded in **one** pdf.

1. Completed Wattis Dumke Research Fellowship Application cover sheet which can be found at the end of this document.
 - Make sure you and your Faculty mentor sign at the bottom of the cover sheet.
2. Research project proposal – should detail what your faculty member’s project is researching, in a general sense, as well as what exactly you will be contributing to the project.
 - The proposal should be **jargon-free** and written in **layman's terms**.
 - **The project proposal should be approximately two pages, single-spaced, Times New Roman 12-pt with a 1" margin on all sides.** The proposal should address the following items:
 1. Your interest in the proposed project and how you arrived at the problem.
 2. A brief description of your project, including your research question and the (basic) approach and methods you will use to address it
 3. Your learning goals for the project (what tools, techniques, skills, or other knowledge or competencies you hope to gain through the project)
 4. Timetable for the project (most projects should be sufficiently complex as to take up most of a semester to complete; exceptions should be justified)
 - Include an accounting of hours you anticipate spending per week in the lab.
 - Consultants in the Writing Center are available to review your project proposal and help you improve it. You can make an appointment with a writing consultant online: <https://dornsife.usc.edu/writingcenter/>
3. On a separate page, include a brief biography about yourself, and include a justification for how this fellowship will help you get into a laboratory and do research when you wouldn’t ordinarily be able to do so.

4. Faculty mentor letter of recommendation. If the faculty member does not want to give you the letter of recommendation, please have your faculty mentor send the recommendation as a pdf to Linda Bazilian at bazilian@usc.edu.
5. **STARS** Report (printed from OASIS)
 - o If you log on to OASIS, you should be able to view your STARS report. If you select the "Print" option from your internet browser, you will have the option to either "Save as PDF" or to "Print to PDF," this will create a PDF document of your STARS report, which can then be saved.
6. You must submit an up-to-date résumé outlining your academic and professional experience. If you have never created a résumé before or even if you have but would like additional guidance and/or feedback from a trained career counselor, please make an appointment with the Career Center: <https://careers.usc.edu/students/write-a-resume/>.

Announcement of Awards

We anticipate notifying funded students no later than 8 October, depending on the number of applications received.

Reporting Requirements

Wattis Dumke Undergraduate Research Fellowship recipients are required to submit a final research report. The final report of the project must be submitted on or before the last day of classes in Fall 2018. The report should not exceed five pages and should summarize the outcomes and results of the project. Any publications or conference presentations that resulted from the project should be listed in the report. You will be sent information on how to upload your final report at least one week prior to the due date. Fellowship recipients will also be asked to write a testimonial letter to the Wattis Dumke Foundation describing their work and its impact at the end of their project. This letter should be about 1 page, but it can be longer.

Note: Equipment purchased with fellowship money reverts back to the unit/department at the end of the research project period.

Deadlines

Application Deadline	Award Announcement	Final Report Due
Monday, 1 October 2018	Monday, 8 October 2018	Last day of classes 30 November 2018

Wattis Dumke Undergraduate Research Fellowship Application

OFFICE USE

CV on File

Approved

Denied

Amount granted \$ _____

Director of BISC Research

Date

Semester	Year	Amount ¹
Fall		
Spring		
Summer		

¹ \$1000 up to \$3000 depending on qualifications

Applicant Information

Student

Name: _____
 USC ID#: _____
 Phone: _____
 Email: _____
 Major: _____

Faculty Sponsor

Name: _____
 Department: _____
 Phone: _____
 Email: _____

Academic Progress

Class Standing:

Freshman Junior

Sophomore Senior

GPA:

Science
 Cumulative

BISC Core

Grade

BISC-120/121L	<input type="text"/>
BISC-220/221L	<input type="text"/>
BISC-320L	<input type="text"/>
BISC-325	<input type="text"/>
BISC-330L	<input type="text"/>

Collateral Sciences

Grade

CHEM-105a/115aL	<input type="text"/>
CHEM-105b/115bL	<input type="text"/>
CHEM-322a/325aL	<input type="text"/>
CHEM-322b/325bL	<input type="text"/>
MATH-125	<input type="text"/>
PHYS-135a/151L	<input type="text"/>
PHYS-135b/152L	<input type="text"/>

Other Sciences² Grade

<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Please attach the following to this application cover sheet:

- **Brief research proposal** (minimum one full page, single-spaced and typed) describing the research project for the semester. With the guidance of your faculty mentor, describe the purpose of the study, the working theory or hypothesis, the relationship of the project to earlier work in the field and the laboratory techniques.
- **Updated STARS report.**
- **A biography** explaining why you think you should receive a fellowship award.
- **Résumé** outlining your academic and professional experience.
- **Faculty mentor recommendation letter** which may be emailed to Linda Bazilian at bazilian@usc.edu

Research Agreement

I have read the requirements for BISC research and have discussed them with my faculty mentor. I am aware that I must conduct the research project appropriately and that I must submit a written research report to my faculty mentor and to Biological Sciences by the last day of classes. The information entered on this form is accurate to the best of my knowledge.

X

Student

Date

I agree to sponsor this student's BISC research fellowship, to supervise the research with care, and to provide a beneficial learning experience. I will ensure that the student files a research report with Biological Sciences by the last day of classes. If the student is enrolled in BISC 490, I will provide a grade to the Department by the last day of exams. I am confident that this student is capable of working independently in my laboratory.

X

Faculty mentor

Date

Wattis Dumke Undergraduate Research fellowship applications must be **submitted online or in person by noon on Monday 1 October 2018**. Please make arrangements to meet with your mentor well in advance, and allow up to two weeks for a decision from the department.

²Other sciences include courses in the natural sciences. Do not include courses from humanities, social sciences or medicine.