

UNDERGRADUATE AND PROFESSIONAL STUDENT TRAINING IN ADVANCED RESEARCH TECHNIQUES (UPSTART) PROGRAM

University of Mississippi School of Dentistry

I. OBJECTIVE

The Undergraduate and Professional Student Training in Advanced Research Techniques (UPSTART) Program provides an opportunity for eligible dental, pre-dental, pre-graduate, and high school students to be involved and trained in research at the University of Mississippi School of Dentistry.

II. GOALS

The program is designed to initiate students in research by pairing with research mentors, teaching general laboratory safety, and instilling essential research skills through hands-on learning. The research experience is provided under the mentorship of a dental faculty member that is actively engaged in research throughout the summer. The program promotes learning through peer interactions via group meetings and seminars on a variety of training topics.

Additional goals of the UPSTART program are:

1. To encourage dental students to participate in a short-term, focused research project at an early stage (D1 and D2 years) of their dental program
2. To better prepare dental students who plan to participate in the Honors in Research Program (HRP)
3. To better assist dental students who plan to participate or are simultaneously participating in the research elective, "Conduct of Research" (698-9)

III. ELIGIBILITY

Only students (dental, pre-dental, pre-graduate, and high school students) who are in good academic standing are eligible for the UPSTART program. Participation in the UPSTART program is on a voluntary basis. Dental students will be given preference over other types of students. The selection of students to participate in the UPSTART program will be made by the Associate Dean for Research at the recommendation of the SOD Research Advisory Committee.

IV. DESCRIPTION

The UPSTART program has several components as described below:

1. **Research-** The UPSTART program consists of research in some aspect of dental or basic health science. Students are required to conduct laboratory or clinical research (e.g., improving current clinical practices, exploring controversies in dentistry, basic and biomedical materials research). The work must be hypothesis driven.

2. **Mentoring-** A University of Mississippi School of Dentistry faculty member will directly supervise students. Wherever applicable, the participating students will also benefit from interaction with the graduate students and post-graduate researchers in the Department of Biomedical Materials Science and the post-graduate dental residents in the various departments in the School of Dentistry.
3. **General laboratory practice orientation-** Students will be given an in-depth training on safe laboratory practices, emergency response, and responsible conduct of research through a didactic seminar plus any additional training necessary to comply with the policies of UMMC and sponsoring agencies.
4. **Professional development seminar series-** The students will attend seminars on a variety of training topics.
5. **Dissemination of research findings-** The students will have the opportunity to present their research findings as an oral seminar in the “UPSTART Symposium” organized at the end of the UPSTART program. Additionally, the students are expected to present the research performed during the UPSTART program and progress since then on the following School of Dentistry Research Day.
6. **Stipends-** The UPSTART program provides no stipends or fixed remuneration. However, students may receive payment for research assistance at the discretion of the mentoring faculty member and/or department.

V. GUIDELINES

Each **student** is expected to abide by these guidelines:

1. The student must demonstrate a high interest in research.
2. The student must identify up to three research projects offered by the dental faculty as his/her “preferred” research projects. Alternatively, a student may identify and obtain a faculty mentor on his/her own. In either case, the student must submit an application to the UPSTART program Director before April 1.

A preliminary matching of the students to the available research projects will be done by the UPSTART program Director and submitted to the SOD Research Advisory Committee for approval. If approved, the SOD Research Advisory Committee will recommend the students to the Associate Dean for Research for participation in the UPSTART program.
3. The student must attend the general laboratory practice orientation, the professional development seminar series, and other UPSTART program meetings.
4. The student must present an oral seminar based on his/her research findings in the “UPSTART Symposium” organized at the end of the UPSTART program.
5. The student must present a poster based on his/her research findings in the UPSTART program and progress since then on the following SOD Research Day.

6. Before beginning a study involving human subjects and before June 1, the student, his/her faculty mentor, and the department Chair must have the IRB approval in-hand and must complete the IRB-approved continuing education course (CITI).
7. Before beginning a study involving animal subjects and before June 1, the student, his/her faculty mentor, and the department Chair must have the IACUC approval in-hand with the student already added to the approved protocol.

Each **faculty mentor** is expected to abide by these guidelines:

1. The mentor must be a full-time faculty member of the University of Mississippi School of Dentistry.
2. The faculty mentor must submit a written abstract of the proposed research project to the UPSTART program Director, no later than March 1.
3. The faculty mentor must communicate the following in written format to the UPSTART program Director:
 - (a) Written permission of all pertinent compliance committees (Institutional Review Board, Institutional Animal Care and Use Committee, Institutional Biosafety Committee, Radiation/Laser Safety Committee) has been obtained for the proposed project.
 - (b) I will mentor the assigned student through the UPSTART program period.
 - (c) I will attend the general laboratory practice orientation, the professional development seminar series, and other UPSTART program meetings.
4. For studies involving human and/or animal subjects, it is the responsibility of the faculty mentor to ensure that the student has completed the IRB/IACUC-approved continuing education course (CITI) and has obtained the approval from IRB/IACUC before working on the project and before June 1.
5. If a student's work in the UPSTART program becomes unsatisfactory to the faculty mentor, the UPSTART program Director will be so notified by the faculty mentor. The SOD Research Advisory Committee will decide whether the student should be disqualified from the UPSTART program.
6. If, in the opinion of the UPSTART program Director, the research work is likely to compromise safety or compliance, then the student will be immediately suspended from research activities and will remain suspended until the situation is resolved.

VI. REQUIREMENTS

Before a student will be given credit for completion of his/her UPSTART program the following requirements must be met:

1. The student must have the approval of the faculty mentor, the UPSTART program Director, and the SOD Research Advisory Committee.

2. The student must present an oral seminar based on his/her research findings in the “UPSTART Symposium” organized at the end of the UPSTART program.
3. The student must provide a firm commitment to present his/her results at the UMMC SOD Research Day.