

Undergraduate Research General Information Dr. David Threadgill's Laboratory

Reynolds Medical Building – Rm 428, 429, 430
Department of Molecular & Cellular Medicine
Texas A&M Health Science Center
www.mouselab.org
Updated: 01-09-2017

Thank you for your interest in research opportunities in the Threadgill Lab. Involvement in an active research laboratory during your undergraduate career can deepen your understanding of biological systems that are introduced in didactic classes and provide valuable experience for future graduate/professional programs or research careers. From our prospective, undergraduate student researchers can be a tremendous help to our research!

Our laboratory uses the mouse as an experimental genetic model to investigate factors that contribute to inter-individual differences in health and disease. There are several research projects in which undergraduate students can participate. For more information on our research interests, please visit www.mouselab.org/research.

Selection:

All students must be at least 18 years old by January 2017 in order to participate. All applicants will electronically submit a *curriculum vitae* or *résumé* to threadgilllab@gmail.com. Please include the following information:

- contact information (including your tamu.edu email address)
- education information
 - your major
 - year in college and expected graduation date
 - college GPA (students must maintain at least a 3.0 GPA)
 - For Freshman applicants, please also include your high school GPA
- awards/honors
- work and/or volunteer experience (including experience outside of science)
- long-term goals after graduation (i.e. research technician job, medical/dental/pharmaceutical school, graduate school, etc.).

If you are interested in joining a particular team, please indicate that in your email. Some applicants will be invited for an interview. Students will be selected based on the interview, the overall fit within the team, scheduling availability, and current research needs.

Expectations

Time commitment: Each selected undergraduate will be placed on a Research Team. Each team has a “Team Research Leader” – either a postdoc, graduate student, or experienced undergraduate that is responsible for the team. You will work with your Team Leader on your lab schedule. Generally, your time in the lab should be treated like a class (i.e. you come at the same times/days each week). Attendance at the weekly Team Meeting is required. Each student is responsible for accurately recording his or

her lab research hours in the Undergraduate Log Book. *Dishonesty in recording hours will be treated as “academic dishonesty.”*

Registration for Research Credit: All students must register for at least one research credit hour through BIMS/VTPB or through their home major. The registration forms are obtained from the student’s department’s office and must be signed by Dr. Threadgill. Students must register for 1, 2, or 3 credit hours (graded). A “Zero Credit” option is only available to students who have exhausted all of their research hours for their major. The weekly time requirements are based on the number of research hours you have registered for:

- 1 credit hour = 4-6 hours/week
- 2 credit hours = at least 8 hours/week
- 3 credit hours = at least 12 hours/week

If you are unable to come to lab for your regularly scheduled hours, you must communicate with your Team Leader as soon as possible. Missed hours from excused absences (e.g. illness) should be made up the *following week*.

Presenting at Student Research Week: all students are expected to present a poster at the TAMU Student Research Week during the spring semester (srwtamu.org). Team Leaders will provide guidance on how to write an abstract, create a poster, and present their research findings. Additional details will be provided. The best presentations will have an opportunity to participate in the Texas Genetics Society Meeting that will take place at the Bush Presidential Library.

Previous lab experience: Specific laboratory techniques are not required to join the laboratory, as established lab members will teach all necessary skills. To maintain research integrity, all basic techniques will be reviewed in our laboratory. We may ask you to watch instructional videos or read about a particular technique outside of the laboratory. If you already have extensive research experience, please communicate that experience with your supervisor but please be patient as we review all techniques.

Our **Golden Rule** for the lab is: *If you aren’t sure, please ASK*. We believe our research is very important, and “assuming” or “guessing” could severely hinder our endeavors or lead to costly damages to the equipment (or to yourself!).

The **Silver Rule** for the lab is: *If you make a mistake, please tell your leader/supervisor*. Mistakes happen in the laboratory all the time, but communicating the error is vital. We might suggest a correction for the error, or request that the experiment be repeated.

The **Bronze Rule** for the lab is: *Clean up after yourself*.

Laboratory Safety, Introduction Workshops, and Trainings

At the beginning of each semester, we will require that all undergraduate students attend Laboratory Orientation Workshops. There will be at least two sessions scheduled for each Workshop. These will be held in the late afternoon, usually starting at 4:00pm or 5:00pm and lasting 1-1.5 hours. Additional lab safety training will be assigned, and completion of these items by the designated deadlines is required.

Depending on the Research Team you will be on, additional training (i.e. animal handling training or biosafety training) may be required. You will be notified on which trainings you will have to complete. All trainings must be completed in a timely fashion.

Semester Reviews

Each undergraduate student will undergo an end of the semester review. This is an opportunity for the student and Dr. Threadgill to discuss individual progress and future opportunities in the laboratory. All students are expected to maintain a minimum overall GPA of 3.0. Any student that fails to maintain a 3.0 GPA will need to meet with Dr. Threadgill to develop a plan for continuation within our laboratory.

Once again, thanks for your interest in the Threadgill Lab! Please contact us with any questions.

Sincerely,

David Threadgill, PhD
dwt@tamu.edu

Rachel Lynch, PhD
rlynch@tamhsc.edu