

Texas A&M University

Summer Research and Extension Experience for Undergraduate (REEU) at
the **Interface of Plant, Microbial and Bioenvironmental Sciences (IPMB)**

Department of Plant Pathology & Microbiology



The role of plants and microbes in the biosphere is multifaceted. Microbes affect global climate patterns, nutrient cycling, biomass degradation, crop production, and plant and animal health. Using the platform of the plant-microbe-environment interface, this REEU program will provide opportunities for students to experientially learn fundamentals of biological research, and to translate these into high-impact applications through extension, all through independent research within active laboratories.

2023 IPMB REEU will be structured so that students can transition from directed to independent research and extension activities. The intellectual focus for our IPMB REEU program is on the interface between plants (key crops), microbes (fungi, bacteria, and viruses), and the environment (soil, water, and pollutants). Our REEU will be composed of two major phases: (a) a 10-week summer experience at TAMU and (b) the long-term tracking of students upon return to their home universities and during pursuit of their graduate or professional careers.

1

SCIENTIFIC
METHODS

2

SCIENTIFIC
COMMUNICATIONS

3

CAREER
DEVELOPMENT



Undergraduate Research

Paid research and extension experience in professors' labs



Faculty mentors

Committed to training the next generation of leaders



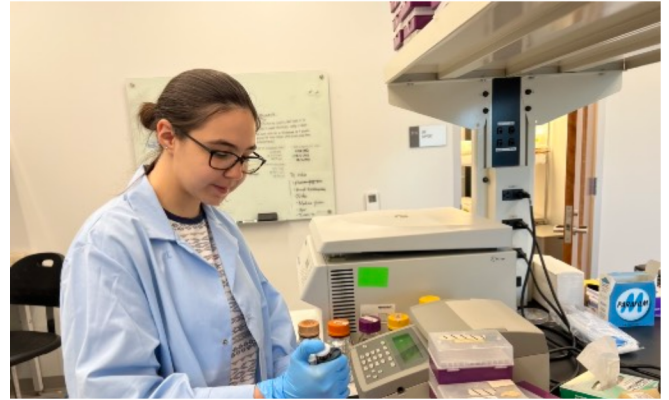
High-impact learning environment

Career skill training opportunities

Research and Extension Mentoring Program

TAMU PLPM strives to continue our commitment to providing our students with high-impact learning opportunities. Our collective commitment to fostering diverse and inclusive educational environment continues to strive for excellence. We have defined three pedagogically sequenced and measurable objectives. During the 10-week REEU the students will learn and demonstrate their knowledge of:

- Scientific method: by formulating hypotheses for assigned projects and designing experiments with controls to test the hypotheses and interpret results;
- Scientific communication: by reporting status of experiments in laboratory group meetings and preparing oral and/or poster presentations of findings; and
- Career and professional development: by attending seminars, understanding the management of hypothesis-driven research, and interacting scientifically and socially with faculty mentors, graduate students, REEU student peers, our Professional Board, and extension personnel.



Proposed IPMB REEU Schedule

Week 1

- Orientation and administrative training
- Tour and introduction to PLPM laboratories
- Individual student-mentor meetings and REEU plan

Week 2-9

- Individual student-mentor REEU projects discussion
- Laboratory or field research and extension activities
- Weekly brunch/lunch seminar by faculty mentors, featuring critical feedback from students
- Participate in scheduled LAUNCH and College professional development activities

Week 10

- Conclusion of student research projects
- Presentation of research mini symposium
- Focus group feedback discussion

For more information, please contact us.

Dr. Tom Chappell, Assistant Professor and Undergraduate Research Scholar Director, tomu@tamu.edu

Mr. Sam Murdock, Academic Program Coordinator, murdock@tamu.edu

And visit our website: plantpathology.tamu.edu

and... we are on Instagram @plpmbesc



PARTICIPANT SUPPORT

- The program will provide all REEU participants \$5,000 stipend for 10-week research/extension internship
- Housing available through Texas A&M University Residence Life during the 10-week REEU program (cost varies)
- Weekly lunch seminar series and and final mini-symposium

APPLICATION (TX.AG/NCTOU6Q)

- Statement of interest in IPMB research or extension topics
- Academic transcript
- A CV/Resume
- Letters of recommendation

