

Biological Sciences Student Awarded Prestigious NSF Graduate Research Fellowship

Graduate student Bloo Mitchell in the Department of Biological Sciences was awarded a National Science Foundation Graduate Research Fellowship (NSF GRF). They join 2,036 other students to receive the fellowship in 2024. The NSF GRF is a nationally competitive fellowship that recognizes and supports outstanding graduate students in science, technology, engineering, and math (STEM) disciplines who are pursuing research-based master's and doctoral degrees at US institutions. Fellows receive three years of support including an annual stipend of \$37,000; their institution receives an annual cost of education allowance of \$16,000.

"I am thrilled that Bloo was awarded an NSF GRFP! This is a testament to their exceptional research capabilities and potential for significant contributions to their field. This award not only highlights Bloo's individual achievements but also reflects positively on the quality of research being conducted at the University of Memphis" says Dr. David Freeman, Chair of Biological Sciences.

Mitchell of Norfolk, VA, is working with Dr. Philip Kohlmeier to investigate how maternal effects contribute to larval cold adaption via neuronal pathways in fruit flies. "My research interests lie in unraveling the intricate interplay between epigenetic mechanisms and environmental adaptation, particularly focusing on how organisms adapt to changing climatic conditions at the molecular level." Mitchell is a first-year PhD student who earned their BS in Biology at Dalton State College. While now focusing on neurogenetics their undergraduate research in ecology, specifically stream quality assessment of habitat for a federally threatened darter species, articulated the link between how organisms navigate anthropogenically induced challenges to persist in their environments.

Outside of the lab, Mitchell is focused on establishing a chapter of oSTEM (Out in Science, Technology, Engineering, and Mathematics) at the University of Memphis. oSTEM advocates for the needs of LGBTQ+ students and professionals within STEM fields and specifically provides networking and mentorship opportunities.

While Mitchell acknowledges the prestige of the award, they are most appreciative of how the fellowship will support their family. Mitchell moved their family, including wife and 12 year-old daughter, to Memphis to pursue a PhD at the University of Memphis. "Their unwavering commitment and encouragement have been instrumental in fueling my pursuit of knowledge and realizing my dreams, and this fellowship enables me to reciprocate their dedication by ensuring our collective well-being" says Mitchell.

Chair Freeman notes that, "our department is known for its strong commitment to research excellence and innovative scholarship. Mitchell's achievement adds to the vibrant graduate student culture within the department, showcasing the caliber of students and the quality of education and research opportunities available at the University of Memphis." Mitchell joins two Biology colleagues, Julia Weil and Serena Blais, who were awarded NSF GRFs in 2023. The recent awards reflect the success of the annual GRFP Bootcamp developed by Dr. Emily Puckett, and administered by Dr. Puckett along with Dr. Jim Adelman and Dr. Cassandra Nunez, Assistant Professors within Biological Sciences.

More information on the NSF GRFP can be found on the program's website (<https://www.nsfgrfp.org/>)