

NEWS FROM THE UNDERGRADUATE RESEARCH CENTER

TABLE OF CONTENTS

MEET THE URC TEAM | PAGE 2

Welcome to our new coordinator and student workers

FALL URECA GRANTS | PAGE 3

Deadlines and project options

URECA WORKSHOP | PAGE 4

Fellowships and URECA Workshop

SOAR AMBASSADORS | PAGES 5-6

Meet our 2022-23 SOAR Ambassadors

SOAR UPDATES | PAGES 7-8

What is SOAR? Why join?
Fall Luncheon & Business Meeting
2022-23 SOAR Officers

FEATURED SOAR STUDENT | PAGE 9

Yaseen Ginnab

MARK YOUR CALENDARS | PAGE 10

Open House, Scholars Week,
WorldCUR, and NCUR Dates

FEATURED FACULTY MENTOR | PAGE 11

Dr. Kevin Bicker

CONFERENCE SPOTLIGHT | PAGE 12-13

Mycological Society of America

NEW URECA POLICIES | PAGE 14

Gift cards & Publications

GRADUATION DISTINCTION | PAGE 15

Levels and Criteria

LAB DIRECTORY | PAGE 16

Lab opportunities across disciplines

STUDENT RESEARCH GUIDE | PAGE 17

Advice from students on how to get involved

Hello, Fall Semester!

To our students who are returning, welcome back. We hope you had a great summer filled with adventure, relaxation, and continued learning. For those of you new to MTSU, we are excited to get to know you during the coming months! If you are ready to get involved in undergrad research but are unsure where to start, take a peek at our Student Research Guide on page 17.

This edition of our newsletter is full of lots of great info including Fall URECA options and deadlines (including the return of our in-person workshop!), information about how to join our awesome student organization known as SOAR, student presentation and conference highlights from the summer, new URECA policies, and graduation distinction requirements.

Be sure to check out the new additions to our staff, our 2022-23 SOAR officers and ambassadors, and several "save the dates" for upcoming events and conferences including the Fall Open House, the National Conference on Undergraduate Research, Scholars Week, and the World Congress on Undergraduate Research.

We have also added a "featured faculty mentor" page to showcase our amazing URECA mentors.

Never hesitate to let us know what you would like to see featured in future editions of our newsletter. We wish you a wonderful fall semester!

URC'S MISSION

The Undergraduate Research Center's (URC) mission is to be the central hub for communication about undergraduate research grant programs and other related opportunities on and off campus, to distribute university funds for undergraduate research and creative projects, and to promote dissemination of results through travel grants and by offering opportunities for students to present their research findings.

THE URC TEAM

YOU, our students and faculty, are our #1 priority. We are here to help however possible, whether it is getting you involved in undergraduate research, helping you find a faculty mentor, thinking through a research or creative activity project, hosting a workshop on a topic of need, or facilitating events. Meet our team!



Dr. Jamie Burriss

Program Manager, Office of Research and Sponsored Programs

Dr. Burriss oversees the URC, the Student Organization for the Advancement of Research (SOAR), our newly created SOAR Ambassador program, the URECA grant program, communications, Scholars Week, Posters at the Capitol, and all other activities related to the URC.

Prior to returning to MTSU, Dr. Burriss served as the Curriculum Administrator for the SELECT MD Program at the University of South Florida while pursuing her doctorate. After USF, she accepted a position at Vanderbilt University as the Assessment Analyst for the College of Medicine. But, her heart has always been TRUE BLUE and she is happy to once again serve her undergraduate alma mater.

Jamie.Burriss@mtsu.edu
Phone: 615.494.7669



Katie Medrano

Coordinator, Office of Research and Sponsored Programs

Katie is delighted to be the new Coordinator for ORSP! She was born and raised in Murfreesboro, TN. In 2019, Katie completed her bachelor's degree in Organizational Communication with a minor in English here at MTSU. She plans to pursue her master's degree in the near future. Katie is an artsy type with a love for painting, reading, and nature. She enjoys volunteering for local nonprofits and has found so much joy in using her life to help others. Katie is excited to start this new journey and to get to know all about the world of research and sponsored programs. She strives to be a life-long learner, and what better place to do that than at MTSU?

Katie.Medrano@mtsu.edu
Phone: 615.904.8040

URC Student Workers



Jocelyn Rajkowski

Major: Community and
Public Health

Jocelyn was born in Bay Shore, NY. She is well on her way to earning her bachelor's in Community and Public Health in December 2022, and her MPH in December 2023. In Jocelyn's free time, she enjoys running, cycling, lifting weights, reading, and hanging out with her cats.



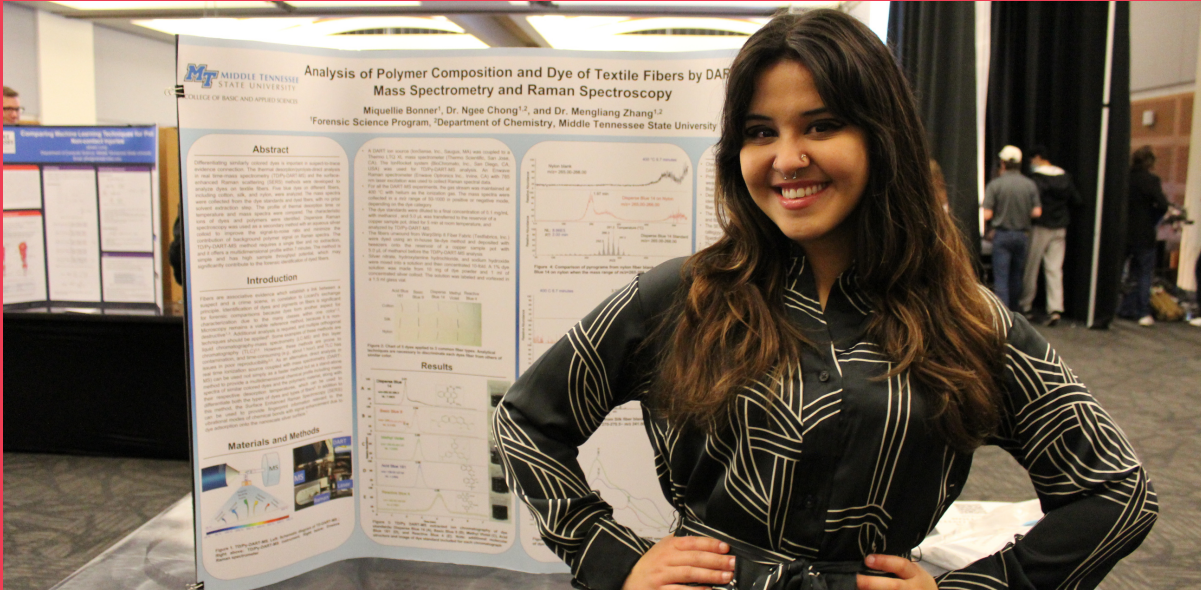
Jacob Grones

Major: Biology

Jacob is a Biology major with a concentration in biotechnology and genetics. He expects to graduate in the Spring of 2024, and plans to pursue further education in biomedical engineering. He loves to exercise, hike, camp and do just about any hobby he can get his hands on. He has two siblings: a twin sister and a 9-year-old brother.

FALL URECA GRANTS

APPLICATION DEADLINE: SEPTEMBER 1, 2022 BY 4:30PM



*Want to get paid to do research
or work on a creative project?*

THEN CHECK OUT OUR
UNDERGRADUATE RESEARCH
AND CREATIVE ACTIVITY
GRANTS



STUDENTS MAY
APPLY FOR THE
FOLLOWING
LEVELS:

Assistant - beginners,
one semester
project, \$500 stipend

Silver Scholar -
experienced student
researcher, one
semester project,
\$1000 stipend

Gold Level -
experienced student
researcher, 2
semester project (fall
& spring), \$2,400
stipend

Team - All levels

To support our vision of nurturing a culture of research and creative activity at MTSU, the URC offers Undergraduate Research Experience and Creative Activity (URECA) grants to students three times a year. Awards range from \$500 for beginners to \$3,500 for experienced researchers.

Team applications are now being offered during the fall, spring, and summer semester. More information about the team structure can be found [here](#).

To learn more about URECA grants and how to submit proposals, check out our [website](#).

NEW!! Need assistance finding a mentoring or figuring out which level grant is best for you? Contact our Peer Mentor Scholar, Foram Patel, at fp2n@mtmail.mtsu.edu. Foram can also help with proposal development, budget and justification, creating a timeline, and proposal review. More info about our new SOAR Ambassadors on Page 5!

Research • Creative Activity • Scholarship

FELLOWSHIPS & UNDERGRADUATE RESEARCH EXPERIENCE & CREATIVE ACTIVITY (URECA) GRANTS WORKSHOP

JOIN US as we highlight some outstanding opportunities for the 2022-23 academic year!

The first portion of the workshop will feature several prestigious and exciting fellowship opportunities in the areas of research, language, and service.

Presenter: Laura Clippard, International Fellowships and Honors College Coordinator

Then we will shift gears and focus on the URECA grant program. Awards range from \$500 for beginners to \$2,400 for experienced student researchers. We will cover all the details needed to apply including how to find a faculty mentor, proposal development, and budget guidelines.

Presenter: Dr. Jamie Burriss, Undergraduate Research Center



AUGUST 23, 2022

12:30 PM –
1:30 PM

**STUDENT UNION,
ROOM 220**



Check out our websites for more info:

<https://www.mtsu.edu/honors/ufo>

<https://mtsu.edu/urc/ureca>



Meet our 2022-23

SOAR Ambassadors!

FORAM PATEL

PEER MENTOR SCHOLAR

ROLES & RESPONSIBILITIES;
MENTOR STUDENTS INTERESTED IN GETTING INVOLVED WITH UNDERGRADUATE RESEARCH. PROVIDE GUIDANCE RELATED TO URECA GRANTS (PROPOSAL, BUDGET, TIMELINE) AND THE DISSEMINATION PROCESS.



CASEY TOMLIN

SCHOLARS WEEK CHAIR

ROLES & RESPONSIBILITIES;
HELP ORGANIZE EVENTS FOR SCHOLARS WEEK, PRIMARILY FOCUSED ON THE RESEARCH AND CREATIVE ACTIVITY EXPOSITION. SERVE AS STUDENT LIAISON TO MTSU SCHOLARS WEEK COMMITTEE.



ERIKA ALLEN & MARZEA AKTER

URC COMMUNICATIONS & SOCIAL MEDIA



ROLES & RESPONSIBILITIES:
ASSIST WITH THE URC MONTHLY NEWSLETTER, SOCIAL MEDIA TAKEOVERS, FACEBOOK & INSTAGRAM POSTS, LAB DIRECTORY, AND MARKETING FOR EVENTS AND HAPPENINGS.

BROOKE BUSBEE & LESLIE GONZALEZ SALAZAR **READY TO SOAR COORDINATORS**



ROLES & RESPONSIBILITIES;
OVERSEE THE THE “READY (RESEARCH EXPERIENCE ACTIVITY DESIGNED FOR YOUTH) TO SOAR PROGRAM. THIS NEW PROGRAM IS AN OPPORTUNITY FOR AREA HIGH SCHOOL STUDENTS TO VISIT MTSU’S CAMPUS FOR AN IMMERSIVE RESEARCH OR CREATIVE ACTIVITY EXPERIENCE DURING SCHOLARS WEEK.

LUKE GORMSEN & SAMAN KITTANI **RESEARCH ASSISTANTS**



ROLES & RESPONSIBILITIES;
ASSISTS WITH RESEARCH PROJECTS, IDENTIFICATION OF EXTERNAL FUNDING OPPORTUNITIES FOR STUDENTS, DATA ANALYSIS, AND PRESENTATION OF RESULTS.

What is the Student Organization for the Advancement of Research? AKA "SOAR"



SOAR is our awesome student organization comprised of undergraduate students who are committed to developing and sustaining an active and successful undergraduate research environment at MTSU.

SOAR's Mission

To enhance student's research capacity through increased awareness, collaboration and skill building.

Why Join?

- SOAR will enhance a student's research capacity through increased awareness, collaboration and skill building by offering workshops and trainings to fulfill the needs of undergraduate researchers.
- SOAR will assist students in the preparation of poster presentations and development of abstracts to increase conference presence on a national level, encourage students to attend the National Conference on Undergraduate Research, and facilitate travel preparations.
- SOAR will provide peer mentoring to students new to undergraduate research.





FALL LUNCHEON & BUSINESS MEETING

JOIN US!

When? Monday, August 29 | 11:30-12:30pm

Where? MT Center (lots of student parking in the Sam Ingram lot) - 2269 Middle Tennessee Boulevard

Who? ALL Majors - Biology, English, Aerospace, Computer Science, Business, Chemistry, Marketing, Recoding Industry, Psychology, Health and Human Performance - ALL Majors - all of them!! Anyone interested in being a part of a really cool student organization and is interested in advancing their involvement in undergraduate research or creative activity should join us!

Why? Free lunch. But, more importantly, we will go over events, workshops, and other ways to get involved this fall.

How? Register [HERE](#) to select your lunch choice!

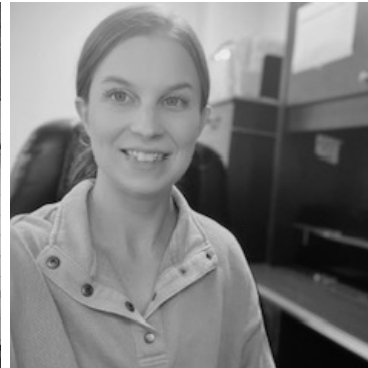
MEET OUR 2022-2023 SOAR OFFICERS



Hunter Brady
President
Major: Biology



Charlotte Daigle
Vice President
Major: English



Jocelyn Rajkowski
Secretary
Major: Community & Public Health



Dalton Lewis
Treasurer
Major: Biology

FEATURED SOAR STUDENT YASEEN GINNAB



Major: Biology and Psychology

Faculty Mentor: Dr. Frank Bailey

Current Research Focus:

Analyzing the Ability of *Astragalus tennesseensis* to Accumulate Selenium

Project Description:

The *Astragalus* genus has well-known selenium hyperaccumulators, such as *Astragalus bisulcatus*. This plant can accumulate extremely high amounts of selenium, an essential micronutrient that can have devastating effects when consumed in high amounts. *A. bisulcatus* grows in the western U.S. where there are relatively high amounts of selenium in the soil, while *A. tennesseensis* grows in middle Tennessee with lower amounts of selenium. For my Honors Thesis project, I will grow these two plants side by side with three levels of selenium exposure to test whether *A. tennesseensis* has the same selenium accumulating abilities as its relatives.

Why does this topic interest you?

My first research experience was helping Dr. Herlihy and Dr. Walck on observing pollinator behaviors on *Astragalus bibullatus*, a species endemic to Rutherford county's Cedar Glades. During this fieldwork, I became familiar with *A. tennesseensis* as well. I had a growing interest in the *Astragalus* genus when Dr. Bailey showed me papers on *A. bisulcatus* hyperaccumulating selenium, and I wanted to see whether the other two species could do it as well. I didn't find any papers so it seems that nobody has tested this yet. I decided it would be an interesting project for my Honors Thesis. Since *A. bibullatus* is federally endangered I decided to do the project on *A. tennesseensis*.

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Do you have any advice for future researchers?

Don't be afraid to approach professors with thoughts or questions. That's how you get the initial connections that can lead to research projects. I know professors can seem intimidating, especially as a freshman, but if you show genuine interest and unique thinking, you'll stand out and they'll remember you.

**Check out more
SOAR profiles here!**

[MTSU.EDU/URC/SOAR-
PROFILE/](https://MTSU.EDU/URC/SOAR-PROFILE/)

MARK YOUR CALENDARS!!



Undergraduate Research and Creative Activity

OPEN HOUSE

**MIDDLE
TENNESSEE**
STATE UNIVERSITY.

Office of Research and Sponsored Programs

Undergraduate Research Center

Thursday, November 3rd, from 11-1pm

SCI Building, 2nd floor, Atrium

The Open House is an informal poster session that showcases undergraduate student research and creative projects at MTSU. All students, particularly new students and transfer students, are invited to attend. Registration will open on October 3rd!



MARCH 20-24, 2023

Scholars Week is a week long tradition during which MTSU's academic colleges celebrate scholarship, research, and creative activity through a variety of events and activities.



APRIL 4-6, 2023

The World Congress on Undergraduate Research will take place at the University of Warwick.

Students across the world are invited to share their research, discuss global issues, and create or strengthen international research partnerships. *NOW ACCEPTING ABSTRACTS!



APRIL 13-15, 2023

The National Conference on Undergraduate Research hosts 3,500 to 4,000 students from across the globe, presenting their research through posters, oral presentations, visual arts, and performances. It will take place at the University of Wisconsin-Eau Claire.

URC FEATURED FACULTY MENTOR

DR. KEVIN BICKER



Department: Chemistry

Research Interests:

Bioorganic chemistry, peptoids and peptides, solid-phase synthesis, assay development, drug development

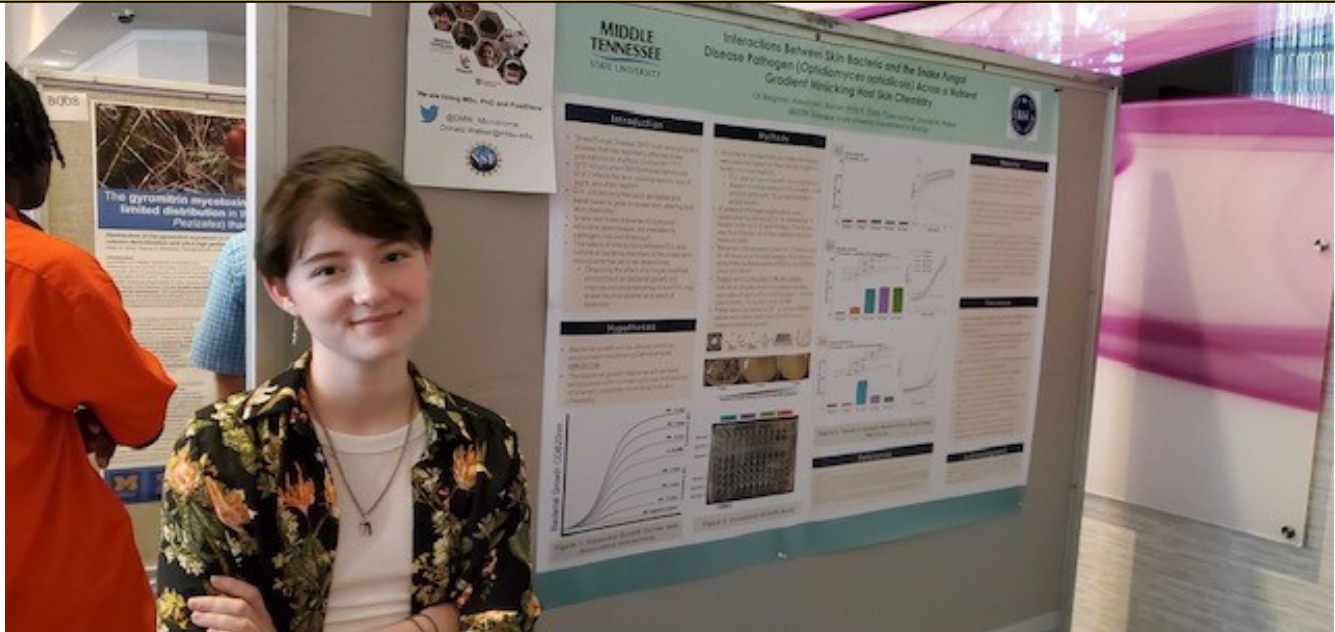
Mentored URECA Projects:

- Synthesis and evaluation of antifungal peptoid derivatives against *Cryptococcus neoformans* (Summer 2021)
- Synthesis and evaluation of antifungal peptoid derivatives against *Cryptococcus neoformans* (Fall 2020)
- Synthesis of Peptoid Coated Quantum Dots for Biomedical Applications (Summer 2020)
- Synthesis and MIC Testing of Antifungal Peptoids against *Cryptococcus* (Summer 2017)
- Characterizing the Therapeutic Potential of the Antifungal Peptoid AEC5 (Summer 2017)
- Synthesis and Screening of an Antimicrobial Oligomer Peptoid Combinatorial Library Against the Fungi *Aspergillus*, *Candida*, and *Cryptococcus* (Summer 2016)
- Synthesis and Screening of Antimicrobial Peptoid Combinatorial Libraries Against the Fungi *Aspergillus*, *Candida*, and *Cryptococcus* (Fall 2015)

Check out our expanded list of Faculty Mentor profiles here!

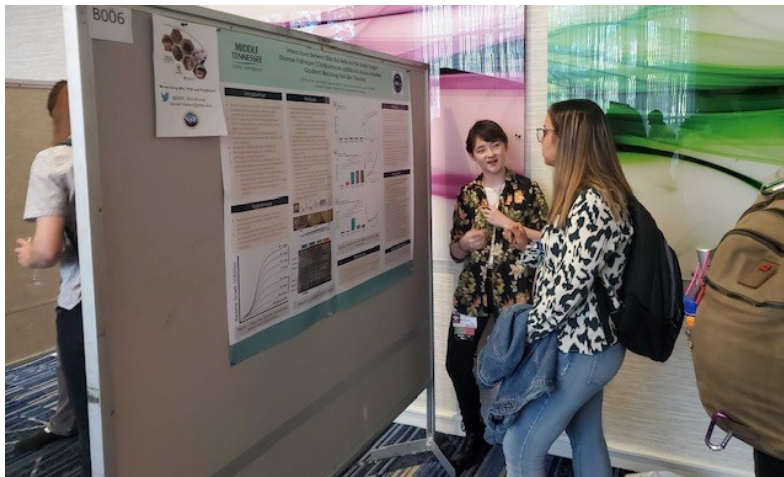
[MTSU.EDU/URC/MENTORS](https://www.mtsu.edu/urc/mentors)

CONFERENCE PRESENTATION SPOTLIGHT



*Ori Bergman
Biology Major
Faculty mentor: Dr. Donny Walker*

Being surrounded by passionate, prominent mycologists was exhilarating. I not only got to see the variability and applications of mycological research, but also learned what it would be like to stay involved in that community. I didn't want it to end!" -Ori Bergman

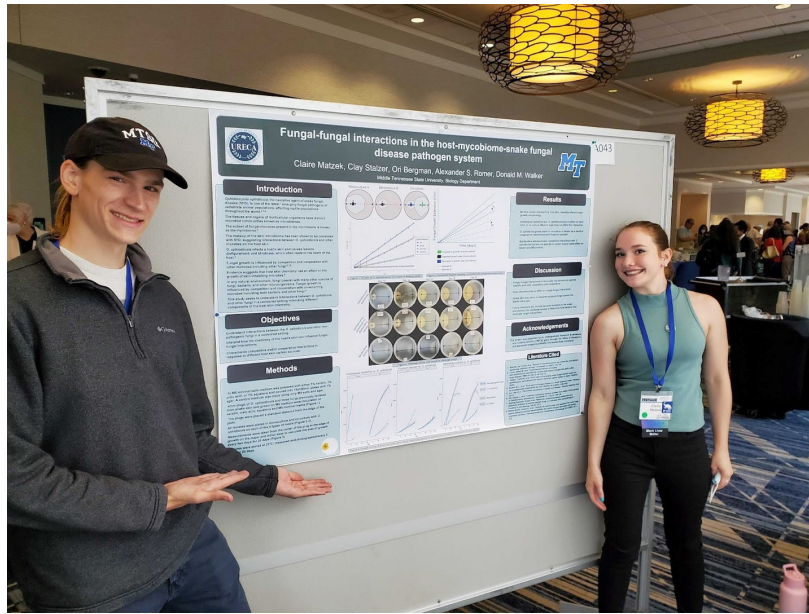


*Conference: Mycological Society of America (MSA)
Gainesville, FL*

Ori had the opportunity to meet Dr. Meredith Blackwell, an American Mycologist who is known as one of the world's leading experts on fungi associated with arthropods.

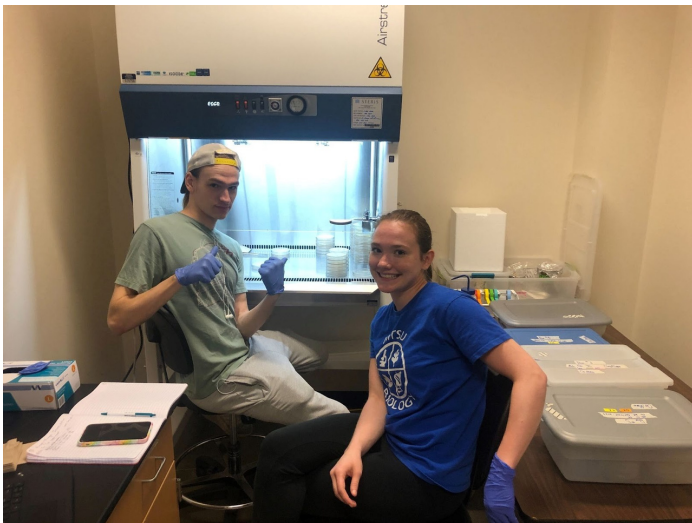


CONFERENCE PRESENTATION SPOTLIGHT



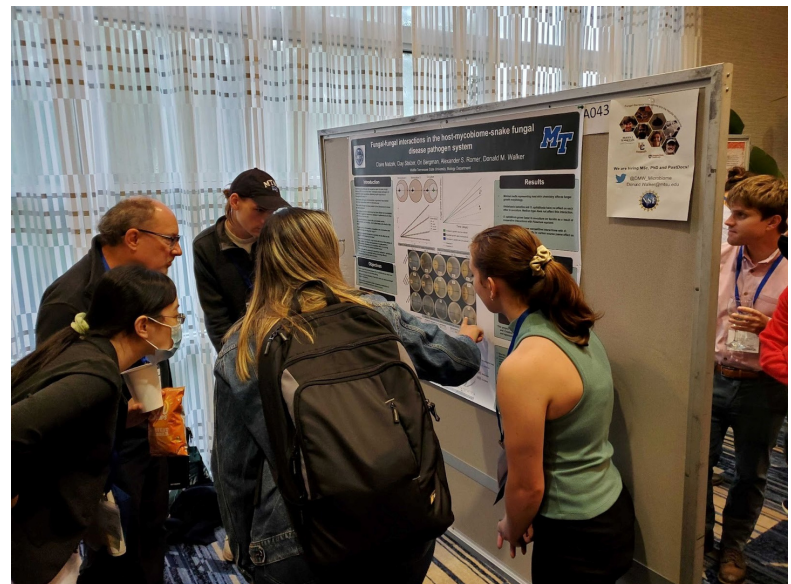
*Clay Stalzer
Biology Major*

My MSA was so incredibly exciting and informative, it was jam-packed with ground breaking research on all topics mycology related. From restoring the environment in South America, to VOCs released by sick houses after hurricanes



*Conference: Mycological Society of America (MSA)
Gainesville, FL*

MSA was amazingly interesting! I felt like I made a large amount of connections, was exposed to a number of impactful mycologists and really got a good understanding of my future academic path for the research I contribute to. I can't wait for next year!



New URECA Policies

2 0 2 2 - 2 0 2 3



Gift Cards for Research Participant Compensation

- Projects must be approved by the Institutional Review Board.
- MTSU will provide a taxable stipend to the student researcher in the amount of the gift cards purchased.
- The student researcher, in association with their faculty mentor, will be responsible for tracking their electronic gift card payments and the associated card distribution for the study.
- For accounting control purposes, the student must retain their gift card purchase receipt and provide the receipt to their faculty mentors for verification.
- Students will not be issued their final stipend payment until they have submitted gift card documentation including a purchase receipt and distribution documentation.
- Based on the additional controls that Amazon provides, Accounting Services and the Undergraduate Research Center recommend that students use Amazon to send gift cards to participants. Amazon provides a record of gift cards that have been sent and received by participants; this documentation provides support that the cards have been distributed. Please note that Accounting Services reserves the right to request this documentation as well.

Funding for Publications

Expenditures supporting publications that will not return royalties to the author or authors may be requested from URECA funds. Similar to conference travel support, funding to support publications must meet the following guidelines:

- At least one MTSU undergraduate student must be listed as an author on the supported publication.
- Students seeking funding for publication support should email their requests to the URECA Program Manager, Dr. Jamie Burriss. Please include documentation of the accepted publication.
- The student may request up to \$400 to assist with the cost of publication. The \$400 can be paid directly to the publisher or reimbursed to the student.
- Funding is limited to once per academic year, which is defined as the start of the fall semester through the end of the summer semester.

Support for royalty generating publications are not permitted from URECA funds.

UNDERGRADUATE RESEARCH GRADUATION DISTINCTION



LEVELS OF RECOGNITION

Distinction in Undergraduate Research

- Students receive a dark blue, light blue, and white cord

Scholar Distinction in Undergraduate Research

- Students receive a dark blue, light blue and white cord
AND a medallion (see image to the right)

DISTINCTION CRITERIA

Distinction in Undergraduate Research

*Students must fulfill all requirements

- 1 Successful completion of an Assistant level URECA project - 50 hours of research or more.
- 2 Poster presentation or creative performance at one of the URC's signature events: Fall Open House, Scholars Week, or Summer Research Celebration.
- 3 Active participation for at least one academic year in the Student Organization for the Advancement of Research (SOAR).
- 4 Confirmation of support from URECA faculty mentor.

Scholar Distinction in Undergraduate Research

*Students must fulfill all requirements

- 1 Successful completion of a Scholar level URECA project - 100 hours of research or more.
- 2 Poster presentation or creative performance at one of the URC's signature events: Fall Open House, Scholars Week, or Summer Research Celebration.
- 3 Active participation for at least one academic year in the Student Organization for the Advancement of Research (SOAR).
- 4 Poster or presentation at the National Conference on Undergraduate Research or published in a peer-reviewed academic journal.
- 5 Confirmation of support from URECA faculty mentor.

OUT NOW: THE URC LAB DIRECTORY

State of the Art MTSU Laboratories, all in one place.

The URC is proud to announce our new laboratory directory. This resource will allow students to learn about excellent MTSU labs across several disciplines. Both new and experienced student researchers can utilize this document to find research positions, set up collaborations with other labs, or to establish a specific thesis mentor.

This directory is also a resource for faculty members seeking student researchers. Each lab's accomplishments, publications, and goals are detailed within the pages of this directory.

This directory contains laboratory descriptions, the key skills necessary for each lab position, and semester openings for several labs, divided by specific college. To access the directory, click the button on the right or scan the QR code.

PDF copies of the directory are also available to print.

***Please send any additions or updates to our URC Communications & Social Media Ambassador, Marzea Akter: ma2ey@mtmail.mtsu.edu.**



[CLICK HERE](#)



LOOKING TO START YOUR RESEARCH JOURNEY?

Then check out our STUDENT RESEARCH GUIDE

The URC's guide for upcoming student researchers, *Research Guide: How to Start your Student Research Journey*, is a great resource for undergraduates seeking to enter the world of research! This guide covers when to start research, how to find a project, student experiences, helpful advice, URC resources, and SOAR resources at MTSU.

The next time you are asked how to get involved in research, direct that student to this resource!

This guide was initiated, compiled, and formatted by Dara Zwemer.

Stories were provided by SOAR students, including Cassandra Perrone, Leah Piccirillo, Javier Hernandez, Robert Conner, Charlotte Daigle, Madeline Aadnes, Maria Fernanda Clark, Kylie C. Moe, Miquellie Bonner, Merry Young, Kaitlyn Berry, Zachary Sanchez, Kap Paull, and Christopher Hall.

We hope you find it useful!

UNDERGRADUATE RESEARCH CENTER AT MIDDLE TENNESSEE STATE UNIVERSITY

RESEARCH GUIDE

HOW TO START YOUR STUDENT RESEARCH JOURNEY

Stories and Advice from Student Researchers

IN THIS GUIDE:

• When to Start.....	2
• Finding a Research Project.....	3
• Student Stories.....	4
• Helpful Advice.....	8
• URC: Here to Help	11
• SOAR Resources.....	12

