

NEWS FROM THE UNDERGRADUATE RESEARCH CENTER

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Congrats, Seniors!

As the saying goes, all good things must come to an end. In this edition of our newsletter, we bid farewell to a *truly exceptional* group of students who are taking the next steps in making their dreams become a reality. Many are headed to top notch grad schools and medical schools, while others are taking a gap year or entering the "real world" (check out their profiles on pages 2-8 to see where they are headed next). All the blood, sweat, and tears these seniors have put into their coursework, research, and extracurriculars have paid off exponentially, and we could not be more proud. Congratulations on all your accomplishments!

Seniors, it has been a sincere joy to watch you grow into such wonderful, young scholars who will persevere in making the world a better place. You will be missed tremendously, but we wish you great happiness and know you will be successful in the adventures that lie ahead.

And finally, a special thank you to our outstanding faculty mentors who invested massive amounts of time and energy into developing and mentoring these students. Without you, an exceptional undergraduate research experience would not be possible.

Farewell, seniors - onward and upward!

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.

CONGRATULATIONS GRADUATES!

HIGHLIGHTING GRADUATING SOAR MEMBERS AND RESEARCHERS

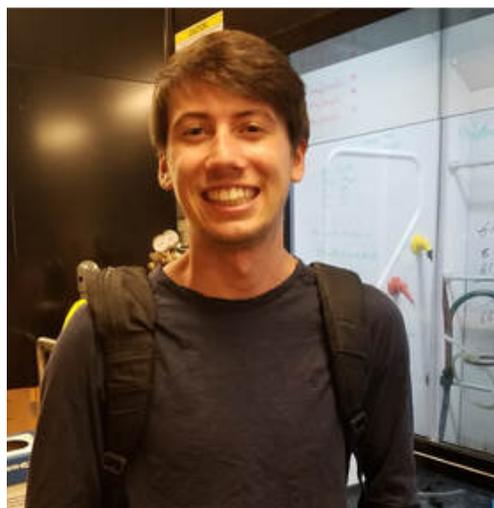


SOPHIA TAYLOR

Major: Chemistry, ACS Certified

Faculty Mentor: Dr. Scott Handy

Post-graduation plans: Sophie is planning to attend The Ohio State University to pursue her PhD in Chemistry.



DEVIN WEAVER

Major: Chemistry, ACS Certified

Faculty Mentor: Dr. Kevin Bicker

Post-graduation plans: Devin is planning to attend Wake Forest University to pursue his PhD in Chemistry.



MIQUELLIE BONNER

Major: Forensic Science

Faculty Mentors: Dr. Mengliang Zhang & Dr. Ngee Sing Chong

Post-graduation plans: Shadow pathologists' assistants and gain certification in a pathology lab. This work experience will add to her excellent academic background and strengthen her graduate applications.

Miquellie served as the first SOAR Scholars Week Ambassador.

CONGRATULATIONS GRADUATES!

HIGHLIGHTING GRADUATING SOAR MEMBERS AND RESEARCHERS

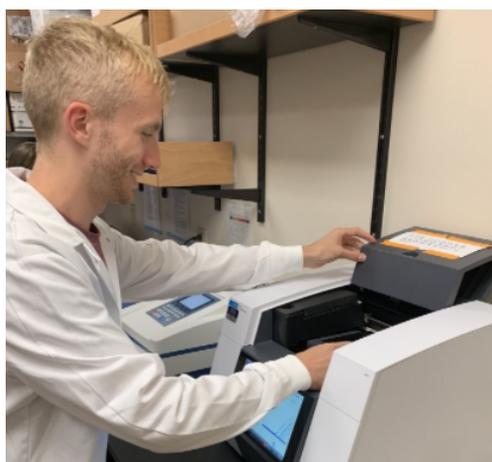


HANNA KOLWYCK

Major: Speech Language Pathology and Audiology

Faculty Mentor: Dr. Rebecca Fischer

Post-graduation plans: Hanna is planning to attend graduate school for a AuD in Audiology at the University of Memphis! Hanna then plans to become a practicing audiologist and to help people by diagnosing, treating, and managing their hearing loss. She hopes to improve her patients' quality of life and communication with others.



LOGAN CARVER

Major: Psychology

Faculty Mentor: Dr. April Weissmiller

Post-graduation plans: Gap year to study for the MCAT and then on to medical school.



DAVONTÉ LEWIS

Major: Physics

Faculty Mentor: Dr. Hanna Terletska

Post-graduation plans: DaVonté is planning to go to graduate school for a PhD in Physics at Johns Hopkins University.

CONGRATULATIONS GRADUATES!

HIGHLIGHTING GRADUATING SOAR MEMBERS AND RESEARCHERS



CASSANDRA PERRONE

Major: Forensic Science

Faculty Mentor: Dr. John DuBois

Post-graduation plans: Cassandra is planning to go to graduate school in Biology at Middle Tennessee State University! She plans to go to medical school after graduating from graduate school. She eventually plans to become a forensic pathologist.



MARIA CLARK

Major: Biochemistry

Faculty Mentor: Dr. Kevin Bicker

Post-graduation plans: Maria is attending Medical School at The University of Kentucky.



MADELINE AADNES

Major: Biology

Faculty Mentor: Dr. Liz Barnes

Post-graduation plans: Graduate school for Marine Science at Nova Southeastern University. Madeline hopes to be a marine biologist and work to conserve the world's ecosystems.

CONGRATULATIONS GRADUATES!

HIGHLIGHTING GRADUATING SOAR MEMBERS AND RESEARCHERS



HA BUI

Major: Chemistry

Faculty Mentors: Dr. Elizabeth Dyer & Dr. Chengshan Wang

Post-graduation plans: Ha is attending Rice University to pursue a PhD in Chemistry.



GAVIN STRAWN

Major: Theatre

Faculty Mentor: Professor Lauren Shouse

Post-graduation plans: Gavin is planning to attend UT Austin for an MFA in Lighting Design! He hopes to continue researching as much as possible while attending.



HANNAH HUDSON

Majors: Biochemistry & Psychology

Faculty Mentors: Dr. Tiffany Rogers & Dr. Elizabeth Dyer

Post-graduation plans: Hannah is attending Wake Forest University to pursue a PhD in Neuroscience.

CONGRATULATIONS GRADUATES!

HIGHLIGHTING GRADUATING SOAR MEMBERS AND RESEARCHERS



MERRY YOUNG

Major: Psychology

Faculty Mentor: Dr. Rebecca Oldham

Post-graduation plans: Merry is planning to attend graduate school in Social Work at the University of Kentucky! She hopes to provide mental health services to military members and their families.



ALISON BLANTON

Major: Animal Science

Faculty Mentors: Dr. Jessica Carter & Dr. Maegan Hollis

Post-graduation plans: Alison is planning on attending The University of Tennessee College of Veterinary Medicine! She plans to pursue a research or lab position in the teaching hospital to continue doing research.



JIALIN ZHANG

Major: Actuarial Science

Faculty Mentor: Dr. Don Hong

Post-graduation plans: Jialin is planning to attend graduate school in Actuarial Science at University of Illinois at Urbana-Champaign. Jialin then plans to acquire an industry position.

CONGRATULATIONS GRADUATES!

HIGHLIGHTING GRADUATING SOAR MEMBERS AND RESEARCHERS



KAP PAULL

Major: Allied Health Science Pre-Pharmacy

Faculty Mentor: Dr. Margaret Brooker

Post-graduation plans: After graduation, she plans on attending pharmacy school, and has already been accepted at UNC-Chapel Hill.

Kap served as the READY to SOAR Ambassador!



PRANATHI SHANKAR

Major: Psychology

Faculty Mentors: Dr. Jessica Gaby

Post-graduation plans: Pranathi is planning to attend Tennessee State University to pursue her Masters in Counseling Psychology.



ANIKA CHOWDHURY

Major: Biology

Faculty Mentor: Dr. John DuBois

Post-graduation plans: Anika is planning to apply to medical school this summer.

CONGRATULATIONS GRADUATES!

HIGHLIGHTING GRADUATING SOAR MEMBERS AND RESEARCHERS



DARA ZWEMER

Major: Pre-Graduate Psychology

Faculty Mentor: Dr. Emily Farris, Dr. Tim Odegard, and Dr. John Pennington

Post-graduation plans: Dara is planning to attend graduate school for their PhD in Experimental (Cognitive) Psychology at Oklahoma State University! They will be working on a grant to study memory errors related to eyewitness memory. After graduate school, she aspires to be a professor and to lead her own research lab studying law and policing relative to processes of memory and attention.

Dara served as the URC Communications and Social Media SOAR Ambassador.

A large background image showing a group of graduates in black gowns and caps, many with their arms raised in celebration. Several caps are seen flying through the air against a clear blue sky.

Congratulations

MAY GRADUATES

We are so proud of you and all that you have accomplished during your time at MTSU! You will be sincerely missed, but we know you will be successful in the adventures that lie ahead.

FEATURED SOAR STUDENT SOPHIE TAYLOR



Major: Chemistry

Faculty Mentor: Scott Handy

Current Research Focus:
Synthetic Organic Electrochemistry in
Deep Eutectic Solvents

Project Description:
We combine the analytical method of electrochemistry with physical and organic chemistry to create sustainable methods of organic synthesis. We are the first lab to combine Deep Eutectic Solvents - recyclable ionic liquids at room temperature - and the process of organic electrosynthesis to produce a highly sustainable and recyclable allylation reaction, which could be applied to both the pharmacological and materials industries in the future.

Why does this topic interest you?
I really love sustainability and organic chemistry, and this project combines the two! It feels great to do research that benefits both the organic synthesis community and the planet.

What are your professional aspirations?
I'm on track to start my Ph.D. in August. Eventually, I would like to work for a company developing sustainable methods of materials synthesis.



Do you have any advice for future researchers?

Reach out to people you are interested in working with as early as possible! Don't be afraid to do research in a field you are not super familiar with - you will learn way more by actually doing research in a field than you could ever learn in the classroom.

**Check out more
SOAR profiles here!**

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

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.

Email Dara Zwemer, the URC Secretary and Social Media Ambassador, with questions about the directory or for a PDF: duz2a@mtmail.mtsu.edu



[CLICK HERE](#)



UNDERGRADUATE RESEARCH AND CREATIVE ACTIVITY AWARDS SUMMER 2022

ASSISTANT AWARDS

Selena Casey - Kefir Grain Growth: Milk vs Whey (Sweet, Neutral, Acidified)

Faculty Mentor: Keely O'Brien, ABAS

Valerie Davis - How do darters adapt to fast waters? A surface texture analysis of scale morphology in *Etheostoma blennioides* and *Nothonotus rufilineatum*

Faculty Mentor: Jessica Arbour, Biology

Kendra Givens - Gated Set Transformer XL with Variable Length Set Output

Faculty Mentor: Joshua Phillips, Computer Science

Dalton Lewis - Evaluation of Microplastic Contamination in Food Waste Composts and Anaerobic Digestates

Faculty Mentor: Mina Mohebbi, Engineering Technology and Industrial Studies

Kate Matthews - What Leads to Productive Procrastination in Salespeople?

Faculty Mentor: Diane Edmondson, Business

Benjimen Neal - Bringing 16th Century Music to 21st Century Audiences: Three Madrigals for Reed Quintet

Faculty Mentor: David Cyzak, Music

Jocelyn Rajkowski - Where do Refugees and Asylum Seekers Land in the United States: A Review of Worldwide Refugee Admissions Processing System (WRAPS) Data and State Laws.

Faculty Mentor: Kahler Stone, Health and Human Performance

Sydney Scott - Exploring the prevalence of Bovine leukosis in the MTSU beef and dairy herds

Faculty Mentor: Jessica Carter, Agriculture

Michael Tonos - The Recording and Manipulation of Natural Sound Sources into a Musical Work.

Faculty Mentor: Michael Fleming, Recording Industry

Lindsey Tran - Ionization of 4T1 Breast Cancer Cells using Laser-Trapping Technology to Improve Efficiency of Breast Cancer Treatment

Faculty Mentor: Daniel Erenso, Physics

UNDERGRADUATE RESEARCH AND CREATIVE ACTIVITY AWARDS SUMMER 2022

SILVER AWARDS

Charlotte Daigle - Through a Different Eye: An Honors Creative Thesis
Faculty Mentor: Rhonda McDaniel, English

Sara Hauver - Analyzing the Interaction between Fentanyl and Eosin Y using GC-MS and FTIR to Refine Colorimetric Method for Detecting Fentanyl
Faculty Mentor: Ngee Chong, Chemistry

GOLD AWARDS

David Bobick - Analysis of Hemp Specific Nutrient Solutions
Faculty Mentor: Nate Phillips, Agriculture

Dominic Marcoaldi - Prescriptive to Descriptive: The Role of Philosophy of Language in Building Epistemic Community
Faculty Mentor: Mary Magada-Ward, Philosophy

PLATINUM AWARDS

Karolin Abouelyamin - Student Discourse Networks and Group Composition in a POGIL-based General Chemistry Class
Faculty Mentor: Joshua Reid, TSEC

Avery Biddle - Analyzing Correlations Within Educational Dance Training Programs
Faculty Mentor: Jade Treadwell, Theatre

William Lickman - Recovering a Fortress: Photo and Video Support to MTSU's Forensic Aviation Archaeology Program
Faculty Mentor: Tiffany Saul, Sociology

Foram Patel - Validating the IGB1 folding pathway using Greedy-Proximal A*
Faculty Mentor: Joshua Phillips, Computer Science

Sylvia Zakher - Student Discourse Networks and Group Composition in a POGIL-based General Chemistry Class
Faculty Mentor: Joshua Reid, TSEC

UNDERGRADUATE RESEARCH AND CREATIVE ACTIVITY AWARDS SUMMER 2022

TEAM AWARDS

Hannah Bates and Kathryn Baumann - A Mineralogical and Geochemical Study of Metamorphic Rocks at Glade Gap in the Blue Ridge Mountains, North Carolina
Faculty Mentors: Warner Cribb, Geosciences

Garrick McGee, Alden McGinnis, Sara Mashburn, and Autumn Hubbard - Word Learning in Undergraduate Students
Faculty Mentors: Kathryn Blankenship, Health and Human Performance

Fatima Razzaq, Steven Brown, and Kyle Hensley - Exploring the Role of Mesolimbic Nuclei in Social Motivation in Mice
Faculty Mentors: Tiffany Rogers, Psychology

Claire Matzek and Clay Stalzer - Host skin chemistry drives fungal-fungal interactions in a host-mycobiome-pathogen system
Faculty Mentors: Donald Walker, Biology

Skylar Carson Reynolds and Molly Cooper - Effects of Pregnancy on the Common Watersnake in Tennessee
Faculty Mentors: Vincent Cobb, Biology

Thank You to our 2021-22 URECA Committee

Justin Miller, Chair, Chemistry
Margaret Brooker, Theatre and Dance
Sean Foley, History
Hanna Terletska, Physics and Astronomy
Misty Jones-Simpson, Recording Industry
Tiffany Rogers, Psychology
Keely O'Brien, Agriculture
Anne Anderson, Finance
Yixiang Wu, Mathematics
Kim Evert, Educational Leadership

Looking to start your student research journey?

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!

[Click Here to View the Student Research Guide](#)

This guide was initiated, compiled, and formatted by current SOAR Secretary and URC Communications and Social Media Ambassador, 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.



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