

NEWS FROM THE UNDERGRADUATE RESEARCH CENTER

TABLE OF CONTENTS

THE URC TEAM | 2

SUMMER URECA DEADLINE | 3

Applications Due April 4th, 4:30pm!

PEER MENTOR OFFICE HOURS | 4

Emilie Conners

THESIS PUBLICATION WKSHP | 5

April 2nd - Dr. Karen Nourse

UNDERGRAD RESEARCH WEEK | 6

April 15th - 19th Featuring Two Workshops and SOAR Social

SOAR SPRING SOCIAL | 7

April 18th - Friendship Bracelet Making and Mini Canvas Painting

SCHOLARS WEEK RECAP | 8

Highlights from the Research and Creative Activity (RCA) Expo

RCA EXPO WINNERS | 9-10

Congratulations RCA Winners!

NCUR 2024 PRESENTERS | 11-15

Featured NCUR Presenters

NEWS FROM NOURSE | 16

Advantages and Obstacles in Undergraduate Research

SOAR | 17

Next Workshop on March 20th

UR GRAD DISTINCTIONS | 18

Graduating Seniors...Apply Now!

MISC RESOURCES | 19-21

Research Guide, Lab Directory, and Research Internships & Presentation Opportunities

Heartening Horizons

Can you believe that it's already April? Neither can I! Exciting ventures are on the horizon, so be sure to give this edition of the URC Newsletter a thorough read through.

First up, **Summer URECA grant applications** (*page 3*) are due April 4th, so be sure to wrap those up if you have not done so already. We also welcome you to join us for a **Thesis Publication Workshop** hosted by Dr. Karen Nourse (*page 5*).

Undergraduate Research Week is the week of April 15th and we have some more workshops for you to participate in (*page 6*). The week will conclude with the SOAR Spring Social on the 18th (*page 7*). Please RSVP as supplies are limited!

Then, take a look at the **recap for Scholars Week and the RCA Expo** from last month (*page 8*). While your at it, check out the list of **RCA Expo winners** (*pages 9-10*). Additionally, **NCUR 2024** is just around the corner, and the URC is sending more than 20 students to present their work (*pages 11-15*).

Last but not least, graduating seniors are now encouraged to apply for **graduation distinctions in undergraduate research** (*page 18*). Next month, the May newsletter will showcase some fantastic seniors, too!



Until next time,
Ross Sibley, Editor
(rhs2x@mtmail.mtsu.edu)



Undergraduate
Research Center

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!



Jamie.Burriss@mtsu.edu
Phone: 615.494.7669

DR. JAMIE BURRISS

Dr. Burriss oversees the URC, the Student Organization for the Advancement of Research (SOAR), SOAR Ambassadors, 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.



Channon.Fults@mtsu.edu

CHANNON FULTS

Program Assistant

Channon was born and raised in Murfreesboro, TN. She graduated MTSU in 2006 with a Bachelor's degree in Interior Design and a minor in Human Sciences. Between working part time with the URC program and being a Mom she continues to pursue her interior design career as well. She is excited to be joining the URC team and is eager to be a part of helping enhance student education at her alma mater.

URC Student Workers



ROSS SIBLEY

Major: Biochemistry

SOAR Involvement:

President, Communications & Social Media Ambassador

Fun Fact: Ross was funded to present his research in the UK at the World Congress on Undergraduate Research.



SOPHIA ROBERTS

Major: Sociology

URC Involvement:

Research Assistant

Fun Fact: Sophia graduated in December 2023 with the Scholar Distinction in Undergraduate Research.

SUMMER URECA GRANTS

APPLICATION DEADLINE: APRIL 4TH, 2024 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

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, Emilie Conners, at emc5w@mtmail.mtsu.edu. Emilie can also help with proposal development, budget and justification, creating a timeline, and proposal review.



STUDENTS MAY APPLY FOR THE FOLLOWING LEVELS:

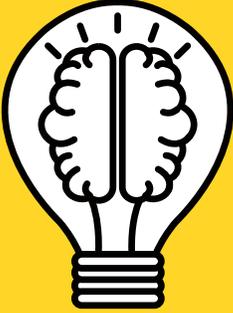
Assistant - beginners, one semester project, \$500 stipend

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

**UNDERGRAD
RESEARCH
PEER MENTOR**

**OFFICE
H  HOURS
EVERY MONDAY
3-4 PM**



I'M HERE TO HELP YOU...

- **GET INVOLVED IN UNDERGRAD RESEARCH**
- **APPLY FOR A URECA GRANT**
- **FEEL CONFIDENT ABOUT IT!**

**REACH OUT TO ME (EMILIE CONNERS)
AT EMC5W@MTMAIL.MTSU.EDU**



CONSIDERATIONS FOR **PUBLISHING** YOUR THESIS OR DISSERTATION

WORKSHOP

APRIL 2,
2024

11:00-11:30am

LIB 264A

LIGHT LUNCH
INCLUDED!



Interested in publishing in a peer-reviewed journal? Join us to learn some guidelines and directions in moving your work to publication.

REGISTER
NOW



tinyurl.com/LRWSworkshop

UNDERGRADUATE RESEARCH

4/15 - 4/19/24 WEEK

**APR
15**

FANTASTIC FACULTY MENTORS AND WHERE TO FIND THEM

10:00-10:30am in LIB 264A | [RSVP HERE](#)
CFA Chicken Minis & Fruit

ESTABLISHING YOUR RESEARCHER PRESENCE THROUGH SOCIAL MEDIA

12:00-1:00pm in LIB 264A | LUNCH PROVIDED!

**APR
17**

**APR
18**

SOAR SPRING SOCIAL: FRIENDSHIP BRACELETS & MINI CANVAS PAINTING

5:00-7:00pm in STU 220 | [RSVP HERE](#)
Pizza Dinner Provided



Walker Library



Undergraduate
Research Center



Student Organization for
the Advancement of Research

S

O

A

R

Spring Social

Join us for a fun-filled night as we make friendship bracelets, paint mini canvases, and enjoy a pizza dinner!

April 18th, 2024

5:00 - 7:00pm

STU 220

[RSVP HERE](#)



Scholars Week 2024

March 15th, 2024



SCHOLARS WEEK RCA EXPO

The 18th annual Scholars Week Research and Creative Activity (RCA) Expo on March 15th, 2024 featured almost 200 projects across all colleges on campus. Student presenters and attendees were welcome to participate in two poster presentation sessions as well as two halftime creative performances while enjoying lunch and dessert. Blackman High School juniors and seniors were also invited to present as part of the READY to SOAR outreach program.

AWARDS

Throughout the RCA Expo, student presenters were judged by volunteer staff and faculty members. 1st, 2nd, and 3rd place awards were presented for each academic college (see next page).



FULL ARTICLE HERE



RCA Expo Winners

College of Basic and Applied Sciences

UNDERGRADUATE

- 1st Place:** Meirola Endraws
& Cole Huddleson
Dr. April Weissmiller
- 2nd Place:** Amy Brown
Dr. Souvik Banerjee
- 3rd Place:** Rand Hasan
Dr. Kevin Bicker

GRADUATE

- 1st Place:** Rahimi Anini
Dr. Elizabeth Barnes
- 2nd Place:** Manikanta Sai Venkata
Siddhardha Chedlla
Dr. Joshua Phillips
- 3rd Place:** Ahmeed Yinusa
Dr. Misagh Faezipour

College of Behavioral and Health Sciences

UNDERGRADUATE

- 1st Place:** Letisha Bates
& Logan Dowd
Dr. Elizabeth Smith
- 2nd Place:** Justin Yule
Dr. Anna Galizio
- 3rd Place:** Maria Lira
Dr. Andrew Owusu

GRADUATE

- 1st Place:** Ryah Al-Amin
Dr. Judith Van Hein
- 2nd Place:** Taiya Mitchell
& Sara Rodriguez Molina
- 3rd Place:** Marialuisa Zirilli
Dr. Rudy Dunlap

College of Education

UNDERGRADUATE

- 1st Place:** Kera Reynolds
Dr. Amy Kornstange

GRADUATE

- 1st Place:** Kendra Miller
Dr. Terry Goodin
- 2nd Place:** Lori Klukowski
& Fonya Scott
Dr. Seth Jones

[Click Here for a Full List of
Winners and Project Titles](#)

College of Liberal Arts

UNDERGRADUATE

- 1st Place:** Eli Ward
Dr. Rebekka King
- 2nd Place:** Brittany Eidemiller,
Sara Sandefur,
Karsen Gray, Brynlee Wolfe
Dr. Bridget Donnely
- 3rd Place:** Rada Ryan
Dr. Carter Smith

GRADUATE

- 1st Place:** Tamara Costello
Dr. Amy Sayward
- 2nd Place:** Amanda Floyd
Dr. Carroll Van West

College of Media and Entertainment

UNDERGRADUATE

- 1st Place:** Jacob Moore, Josiah
Parkhurst, Emily Duff
Ms. Carla Fox
- 2nd Place:** Cynthia Lowe
Dr. Sanjay Asthana
- 3rd Place:** Francisco Galvan
& David Nelson
Ms. Carla Fox

GRADUATE

- 1st Place:** Connor Chase
Ms. Cosette Collier
- 2nd Place:** Ines Lopez
Ms. Cosette Collier
- 3rd Place:** Elijah Matlock
Dr. Trevor de Clercq

Jones College of Business

UNDERGRADUATE

- 1st Place:** Anna Collins
Dr. Sam Zaza
- 2nd Place:** Emma Ankar
& Ashley Landaverde
Dr. Gaia Rancati
- 3rd Place:** Priscilla Hammermeister
Dr. Tom Brinthaput
Dr. Murat Arik

GRADUATE

- 1st Place:** Lothida Mamidi
& Jennifer Nanmejo
Ms. Yaping Zhu
Dr. Sam Zaza
- 2nd Place:** Maria Grefberg
Ms. Yaping Zhu
Dr. Sam Zaza

[Click Here for a Full List of
Winners and Project Titles](#)

NCUR 2024 PRESENTERS



Anna Collins

The Ordinary Price of Zero &
The Impact of Accessibility and
Connectivity on Farmer's Intention to Leave
Their Land

Ariel Nicastro

Acoustic Forcing: Device Design and
Applications in Neuromodulation



Braedyn Hollingsworth

Chemotaxonomy of Dinoflagellate *Tongula
britannica* as Based on Sterols and
Galactolipids

Connor Prim

Integrating Classical Music Into the
Elementary Classroom



Eden Anderson

Detecting Estrogen in the Stones River
Waterways Using the Yeast Estrogen Screen
(YES) Test of the *Saccharomyces cerevisiae*

NCUR 2024 PRESENTERS



Emilie Conners

The Body Positivity Movement: Bettering College Women’s Body Image and Health

Fatimah Alnasseri

Optimization of a Rapid and Efficient Method for Ginsenoside Extraction



Hannah Antrican

“What Can I Do About It?”: Eco-Anxiety in College Students

Janna Abou-Rahma

Mechanism of Action of Antifungal Peptoids



Jillian Degrie

Breaking the Stigma Around Autism: an Interactive Art Exhibition

NCUR 2024 PRESENTERS



Jordan Johnson

Assessing the Fidelity of Illuminating Engineering Society (IES) Profile in Architectural Lighting

Karmina Ghobrial

Exploring Coffee Silverskin Extract's Effects on Age-Related Gene DVE-1/SATB1 During UV- Induced Oxidative Stress



Khadijah Alnasseri

Optimization of a Rapid and Efficient Method for Ginsenoside Extraction

Lindsey Tran

A Preliminary Study: Harvesting and Storing Electromagnetic Radiation using Animal Blood and Micromagnetic Beads



Meirola Endraws

Biological Evaluation of Novel Tubulin Inhibitors for Treatment of Cancer

NCUR 2024 PRESENTERS



Nottely Seagraves

Bridging the Divide: A Comprehensive Analysis of the Implementation of Opportunity Investment Funds to Combat Inequality in Development.

Rand Hasan

Synthesis and Evaluation of Polyaspartate Peptoid Polymers



Rosemary Gutierrez

Electromagnetic Ionization and Radiation Creation in Neuroblastoma Cancer Cells

Ross Sibley

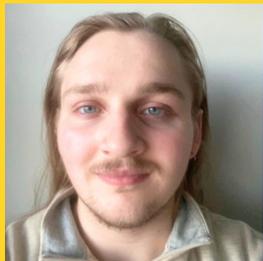
Effects of Cyclization on Antifungal Peptoid Efficacy, Cytotoxicity, and Permeability



Sophia Roberts

Stopping the Willow Project on Social Media: An Exploration of the Social Problems Process in a Sub-Environmental Issue

NCUR 2024 PRESENTERS



Weston Williams

Removal and Bioconversion of Pharmaceutical Waste Created by the Production of Antibiotic Penicillin, and the Spread of Antibiotic Resistance in the Environment

Zaynab Alnasseri

Optimization of a Rapid and Efficient Method for Ginsenoside Extraction Abstract



Kera Reynolds

A Look at University Student Engagement and Connection and its Impact on At-Risk First-Year Students Residing in Housing and Residential in Housing and Residential Life at Middle Tennessee State University

Stay tuned for a NCUR Recap in next month's edition of the URC newsletter!



Undergraduate
Research Center



NEWS FROM NOURSE



The Good and Bad of Undergrad Research

I came across a recent article (Adebisi, 2022) which discussed undergraduate student involvement in research. The author found the following benefits and barriers for students:

Benefits to Students Participating in Research

- Improve problem solving and critical thinking skills
- Develop advanced writing skills
- Improve academic success in coursework
- Faculty mentorship and career guidance
- Improve problem solving and critical thinking skills
- Develop communication skills and responsibility in teams
- Publication & presentation opportunities

Barriers to Conducting Research

- Lack of time to conduct research due to coursework and other responsibilities
- Difficulty in choosing topics
- Students self assess themselves as unqualified/lacking knowledge

Addressing Perceived Barriers

Lack of Time: It is true that getting involved with research is an additional commitment, but choosing to go to college in the first place is an investment of time: you are trading these years for the prospect of higher income. When you graduate college, you will have years ahead to work and make money, but you will no longer have the chance to work with faculty on research. This is, therefore, a unique time in life in which you must weigh the return on (time) investment. Research hits so many important extracurricular goals (such as networking, developing your skills, and personal growth) that one could make the argument that it is a worthwhile return on your investment. Consider your long-term priorities, and see if you can arrange your schedule to accommodate the additional short-term responsibility of research. I think it is very rare that graduated students say “Wow, I wish I hadn’t spent time doing that research project in college!”.

Insufficient Research Skills: This is a much easier barrier to address than time! You are in college so you are not expected to know everything: in fact, knowledge gains are exactly what you are paying tuition for! So take heart and know that there are many people here who have made it their life’s work to help you overcome a lack of skills/knowledge about research: your faculty (including your friendly Walker librarians) all want to help you on your research journey. You just need to reach out to them!

Choosing a Topic: I devoted my column last month to tackling this issue. Please give it a read if you haven’t already: [Click HERE](#)

Conducting research as an undergraduate student yields many academic and professional benefits. And at MTSU, undergraduate research can even carry financial incentives; learn more here: <https://w1.mtsu.edu/urc/ureca/index.php> Don’t let perceived barriers hold you back from making the most of your MTSU years!

Adebisi, Y. A. (2022). Undergraduate students’ involvement in research: Values, benefits, barriers and recommendations. *Annals of Medicine and Surgery*, 81.

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.



JOIN SOAR!

UNDERGRADUATE RESEARCH GRADUATION DISTINCTIONS

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)

Apply
HERE!

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.

LOOKING TO START YOUR RESEARCH JOURNEY?



Undergraduate
Research Center

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

Check Out Our STUDENT RESEARCH GUIDE

OUT NOW: THE URC RESEARCH GROUPS & LABS DIRECTORY

MTSU's outstanding Research Groups and State of the Art Laboratories, all in one place.

The URC is proud to announce our new directory. This resource will allow students to learn about excellent MTSU labs and research groups 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 or group's accomplishments, publications, and goals are detailed within the pages of this directory.

This directory contains descriptions, key skills necessary, 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 Research Assistant, Gracie Johnson:
gpm2h@mtmail.mtsu.edu*



[CLICK HERE](#)



INTERNSHIPS & RESEARCH OPPORTUNITIES

Check out the following opportunities for spring & summer research!

Summer Immersion on Innovative Approaches in Science - Physicians Committee for Responsible Medicine

- The Summer Immersion is designed to educate the next generation of scientists committed to advancing science ethically using nonanimal methods for research and testing. This FREE 3-day program provides an overview of in vitro, in silico, and in chemico approaches and their many applications in basic, translational, and regulatory science to replace animals. Attendees will participate in scientific talks, career development workshops, poster presentations, technology demonstrations, and more. **Apply by April 5th, 2024.**

Interested in more opportunities? [Click here](#) to explore more internship/research opportunities!

Check out the links below to explore other helpful resources!

[Internships and Research Opportunities](#)

[Student Journals](#)

[Paper and Presentation Opportunities](#)

[Student Resource Center](#)