MTSU RESEARCH MAGAZINE
"TAKING SHAPE" HIGHLIGHTS UNDERGRADUATE OPPORTUNITIES

The Office of Research and Sponsored Programs is pleased to unveil the Spring 2021 edition of the MTSU Research magazine focused on undergraduate opportunities.

Appropriately titled "Taking Shape", the stories focus on budding scholars who share their stories and successes. As the articles in this issue attest, engagement in undergraduate research and creative activity allows students to grow their scholarly capacity, gain valuable skills, work alongside some of our most esteemed faculty, and stand out when applying for jobs or graduate programs.

We invite you to read these stories of some outstanding undergraduate researchers, their mentors, and their projects, and realize the remarkable experiences that undergraduate research at MTSU affords students. A special thank you to the students and faculty mentors who made this magazine a reality.

Please click here to view the Research Magazine.

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Scholars Week 2021 will take place from April 12-16 and will showcase a variety of in-person and virtual events at the college and university levels as we celebrate MTSU's commitment to research, creative activity, and scholarship. Events will be posted to our website as soon as they are confirmed so check back regularly.

Our annual Research and Creative Activity Exposition will include a live poster session on Friday, April 16, in the Student Union, Ballroom C. Presenter and attendee spaces will be limited to adhere to COVID-19 restrictions. Details regarding creative performances are still being finalized. We will also host a virtual poster session from April 12-23, 2021 via Symposium. Please see abstract submission details below.

**Important Dates for Scholars Week 2021**

Abstract submission for the University-Wide Research and Creative Activity Exposition is now open.

**March 15, 2021:** Deadline to submit your abstract. Click [HERE](#) for abstract submission instructions. Need help writing your abstract? Check out our Abstract Writing Workshop on page 5.

**March 19, 2021:** Scholars Week Committee will email notices of acceptance.

**March 19, 2021:** Symposium* sign-ups begin for all presenters. Poster printing online sign-up opens (in-person presenters only).

**March 22 - April 14, 2021:** Poster printing and pick-up.

**April 5, 2021:** Deadline to upload posters to Symposium* (all presenters).

**April 12-23, 2021:** Symposium* goes live for all presenters.

**April 16, 2021:** In-person Research and Creative Activity Exposition, Student Union Ballroom (2nd floor)

*What is Symposium?*
Symposium is an engaging virtual platform that will showcase all Scholars Week academic posters, creative projects, and student presentations, along with the ability for viewers to post comments and questions related to individual projects.
The URC is excited to partner with the Walker Library and the University Writing Center to provide students with two workshops to help them prepare for Scholars Week.

We hope you will join us!

Please see flyers and links within for registration.

**UPCOMING WORKSHOPS**

**A Scholars Week workshop series**

**ABSTRACT WRITING & POSTER + PITCH**

Need help writing your abstract for Scholars Week? We can help!

**Join us for one of our upcoming workshops.**

**CLICK ON THE DATES BELOW TO REGISTER!**

March 4, 2021 @ 6:00PM
March 8, 2021 @ 3:00PM

**THE MARGARET H. ORDOUBADIAN UNIVERSITY WRITING CENTER & UNDERGRADUATE RESEARCH CENTER Present**

**POSTER + PITCH**

Creating a poster for Scholars Week? Creating a research poster for class?

Want to prepare for an upcoming conference?

Interested in improving your poster design and presentation skills?

At this workshop, learn the principles of design and elevator pitches, strengthen your design decisions, and find out how to capture your audience.

**TUE. MARCH 23, 2021**

4 P.M.- 5 P.M.

**REGISTER HERE**
The URC is excited to welcome Ketch Secor to MTSU as the distinguished lecturer for our 2nd Annual URECA luncheon.

For the last twenty years, multi-instrumentalist Ketch Secor has been front man and fiddler for Old Crow Medicine Show. Described variously as alt-country, folk, and mountain music revivalists, Old Crow is an American roots string band with punk rock attitude and energy.


After Phillips Exeter, Ketch attended Ithaca College where he immersed himself in the local old-time music scene, officially forming Old Crow. In 1999, the band settled in a backwoods cabin near the college town of Boone, North Carolina. There, busking on a street corner, they were discovered by bluegrass-folk-country-blues legend Doc Watson, who invited them to participate in his annual MerleFest music festival. “That gig,” Ketch would later say, “changed our lives.” The group moved to Nashville and began recording with labels Nettwerk, ATO Records, and eventually Columbia Nashville.

Old Crow Medicine Show became members of the Grand Ole Opry on September 17, 2013. That same year, they received the Trailblazer Award from the Americana Music Association and, two years later, won the 2015 GRAMMY Award for Best Folk Album with their LP, Remedy. Known for his interest in Appalachian history and musicology, Ketch recently wrote a children’s book, Lorraine – his retelling of a Southern folktale, interwoven with the power of music.

Ketch is also heavily featured in Ken Burns' documentary Country Music.

Tickets for this event will be limited to comply with COVID-19 restrictions. Sign up information will be released on April 1. The event will also be live streamed to the MTSU Community.
UNDERGRADUATE RESEARCH
GRADUATION DISTINCTION

LEVELS OF RECOGNITION

Distinction in Undergraduate Research
• Students must fulfill all requirements
  Successful completion of an Assistant level URECA project - 50 hours of research or more.
  Poster presentation or creative performance at one of the URC’s signature events: Fall Open House, Scholars Week or Summer Research Celebration.
  Active participation for at least one academic year in the Student Organization for the Advancement of Research (SOAR).
  Letter of support from URECA faculty mentor.
  Students receive a dark blue, light blue, and white cord

Scholar Distinction in Undergraduate Research
• Students must fulfill all requirements
  Successful completion of a Scholar level URECA project - 100 hours of research or more.
  Poster presentation or creative performance at one of the URC’s signature events: Fall Open House, Scholars Week or Summer Research Celebration.
  Active participation for at least one academic year in the Student Organization for the Advancement of Research (SOAR).
  Poster or presentation at the National Conference on Undergraduate Research or published in a peer-reviewed academic journal.
  Letter of support from URECA faculty mentor.
  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. Letter 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. Letter of support from URECA faculty mentor.

The application can be accessed HERE.
Major: Nutrition and Food Science, Dietetics

Faculty Mentor: Tiffany Harrison

Current Research Focus: Gelatin and Vitamin C intervention in college football athletes: Retrospective case studies.

Project Description: My research project is a retrospective case study on two MTSU football athletes studying the effect of vitamin C and gelatin supplementation, nutrition education, rehabilitation routine on injury healing and return to play.

Why does this topic interest you?
This topic interests me because it presents an opportunity to find valuable solutions to the slow progression of tissue repair and return to play in athletes. MTSU and other collegiate and professional teams need for their athletes to be healthy and ready to play their sport. Whatever solutions we may find for keeping players healthy and on the field are helpful.

What are your professional aspirations?
I aspire to become a Sports Dietitian and work as a director for sports nutrition programs at either the collegiate or professional level.

Do you have any advice for future researchers?
My advice is to be brave and confident when seeking research opportunities. You don’t have to know everything to conduct research—the whole point in conducting research is to solve new problems and present new information to your field of study.
MTSU is proud to represent the highest number of abstract acceptances in the State of Tennessee for presentation at the National Conference on Undergraduate Research (NCUR 2021@home).

Source: National Conference on Undergraduate Research

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<thead>
<tr>
<th>State of Tennessee</th>
<th>Acceptances</th>
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<tr>
<td>Austin PEAY State University</td>
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<td>Columbia State Community College</td>
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<td>East Tennessee State University</td>
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<td>Sewanee: The University of the South</td>
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<td>Vanderbilt University</td>
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<td>Trevecca Nazarene University</td>
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<td>University of Tennessee at Knoxville</td>
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<td>Middle Tennessee State University</td>
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Faculty Workshops at NCUR 2021

Did you know that NCUR 2021 isn’t just for students? Of course, we encourage faculty, mentors, and administrators to come and support the talented undergraduate research presenters on April 12-14, 2021, but why not take advantage of professional development opportunities as well? Check out our 18 faculty workshops on hot topics ranging from mentoring diverse students and promoting anti-racism work in faculty-research training to maintaining energy in a virtual setting. Faculty rates start at $45. Register today.
Virtual 50th Anniversary Internships, Smithsonian Libraries and Archives | Deadline March 1, 2021
- STEM Virtual Summer Internships, US Army Institute of Surgical Research | Deadline March 1, 2021
- REU in Virtual BigDataX, Illinois Institute of Technology/University of Chicago | Deadline March 1, 2021
- 2021 Summer Undergraduate Research Fellowship in Translational Neurobiology, Fralin Biomedical Research Institute, Virginia Tech | Deadline March 1, 2021
- REU in Sustainable Groundwater Resources, San Francisco State University/California State University System | Deadline March 1, 2021
- 2021 Summer Internships, Ohio Bird Sanctuary | Deadline March 1, 2021
- 2021 REU in Statistical Modeling with Applications to Geoscience, Florida Tech | Deadline March 1, 2021
- Summer Research Intern Program, Space Institute, University of Tennessee | Deadline March 5, 2021
- REU in Treatment-Related Research for Youth with Social, Emotional, and Behavioral Problems, Ohio University | Deadline March 12, 2021
- 2021 REU in Robotics, West Virginia University | Deadline March 12, 2021
- Medical Student Research Program Internship, Van Andel Institute | Rolling reviews in March 2021
- Summer Internship: Slavery, History, Memory, and Reconciliation Project; Jesuit Conference of Canada and the United States/Saint Louis University | Deadline March 14, 2021
- REU in Next-Generation Plant Biology, UC Riverside | Deadline March 15, 2021
- Curatorial Assistant and Digitization Internship, Antique Boat Museum | Deadline April 16, 2021
- 2021 Summer Internships, Transportation Security Laboratory, US Dept. of Homeland Security | No application deadline listed.
- REU, Marine Biological Laboratory, University of Chicago | No application deadline listed.

**STUDENTS!** Are you presenting at a virtual conference this spring and would like assistance in paying for your registration fee?

The URC can help!

The Undergraduate Research Center strives to support students in dissemination of their research. Undergraduates who are accepted to present their research at a regional, state, national, or international conference are eligible to receive financial assistance for registration fees.

Awarded travel funds are payable on a reimbursable basis only.

Please contact Wendi.Watts@mtsu.edu for more information.
Assistant Awards

Ashley Barrientos - Amplifying BIPOC voices through a creative digital journal: College students sound off on COVID-19, confrontations with systemic racism, and the 2020 presidential election  
Faculty Mentor: Keonte Coleman, Journalism and Strategic Media

Ashton Bazzell - Environmental temperature effects on milk production and daily activity of dairy cattle with respect to different breed  
Faculty Mentor: Jessica Carter, Agriculture

Alison Blanton - Effects of Heat Stress on Blood Metabolites and Milk Quality in Lactating Holstein and Jersey Cows  
Faculty Mentor: Maegan Hollis, Agriculture

George Boktor - A Community Oriented Mobile Application For the Acquisition of English by Egyptian-Arabic speaking Coptic Diaspora  
Faculty Mentor: Amanda Swenson, English

Hunter Brady - Chlorine Dioxide Gas: Potential for Use as an Anti-viral Agent  
Faculty Mentor: Anthony Newsome, Biology

Briza Dedicatoria - Investigation of the Weathering Effect on Less-Volatile Component Profiles in Ignitable Liquids  
Faculty Mentors: Mengliang Zhang, Chemistry

Katelyn Gardner - Beauty During a Pandemic: The Impact of COVID-19 on the Cosmetic Industry  
Faculty Mentor: Diane Edmondson, Marketing

Javier Hernandez - Charlie Daniels Center Veteran Video Project  
Faculty Mentor: Hilary Miller, Veterans and Military Family Center

Patricia Hummel - Analyzing College Students’ Finances and How They Were Impacted By COVID-19  
Faculty Mentor: Keith Gamble, Economics and Finance

Grace O’Connell - A Compilation of Audio Recordings for Solo Trumpet and Accompaniment  
Faculty Mentors: Michael Arndt, Music

Leah Piccirillo - Utilizing Process Management to Increase Efficiency of Oboe Reed Making  
Faculty Mentor: David Cyzak, Music
**Silver Awards**

**Rija Asim** - Validation and Testing of a Social Motivation Task for Mice
*Faculty Mentor: Tiffany Rogers, Psychology*

**Anika Chowdhury** - Cross-Breeding Industrial Hemp (Cannabis sativa) Varieties to Assess Changes in Cannabinoid Content and Seed Yield
*Faculty Mentor: John DuBois, Biology*

**Hannah Hudson** - Factors Influencing Teachers’ Use of Groupwork in Secondary Mathematics Classrooms
*Faculty Mentor: Elizabeth Dyer, Tennessee STEM Education Center*

**Lauren Hunsicker** - Childhood Reading Experiences and Adult Reading Performance
*Faculty Mentor: Emily Farris, Dyslexia Services*

**Saman Kittani** - Cognitive Disruption and Self-talk in Memory Recall
*Faculty Mentor: Tom Brinthaupt, Psychology*

**Jack Maxwell** - Investigating the Interaction of the Oncogene MYC with the pBAF Chromatin Remodeling Complex
*Faculty Mentor: April Weissmiller, Biology*

**Samuel Morgan** - Personality and Favor Giving
*Faculty Mentor: Tom Brinthaupt, Psychology*

**Cassandra Perrone** - Cloning Successive Generations of Industrial Hemp (Cannabis sativa) to Assess Cannabinoid Profiles
*Faculty Mentor: John DuBois, Biology*

**Emily Stafford** - Effects of varying corn particle size on broiler performance, organ development, and ileal digestibility from 1 to 21 days of age
*Faculty Mentor: Kevin Downs, Agriculture*

**Aubrey Stanger** - Investigation of Pi-extended Aurones
*Faculty Mentor: Scott Handy, Chemistry*

**Amanda Washington** - Why They Died: An expanded analytical examination of details surrounding the 999 officer-involved shooting deaths in 2019 in the United States
*Faculty Mentor: Ben Stickle, Criminal Justice*

**Anna Yuhas** - Initiation and Cannabinoid Assessment of Trichomes on Industrial Hemp (Cannabis Sativa)
*Faculty Mentor: John DuBois, Biology*
Gold Awards

Ha Bui - Teachers’ familiarity with the new computer science standards and their readiness to implement the subject
Faculty Mentor: Elizabeth Dyer, Tennessee STEM Education Center

Team Awards

A Comparison of Religious Cultural Competence in Evolution Education (ReCCEE) Online versus In-Person and its Effects on Student Outcomes
Team Members: Chloe Bowen, Alexa Summersill
Faculty Mentor: Liz Barnes, Biology

A Literature Review on Students’ Attitudes and Science Communication about Climate Change
Team Members: Madeline Aadnes, Aaron Gatewood
Faculty Mentor: Liz Barnes, Biology

Exploring Undergraduate Biology Students’ Attitudes and Science Communication about COVID19 and COVID19 Vaccines
Team Members: Mariana Bryan, Laine Matthews, Thipphaphone Souksavong
Faculty Mentor: Liz Barnes, Biology

The Effect of Language Sample as a Function of Varying Age Groups
Team Members: Rachel Alexander, Janna Spada, Anna Page Wolfe
Faculty Mentor: Kathryn Blankenship, Health and Human Performance

SUMMER URECA DEADLINE

3/25/21
Don't miss the opportunity to apply for summer funding!
Visit our website for application details.

QUESTIONS OR COMMENTS?

email: Jamie.Burriss@mtsu.edu