

Three Minute Thesis Competition

Wednesday, February 28 at 1 PM

Kresge Auditorium (MSB E701)



WELCOME

Welcome to our annual Three Minute Thesis Competition!

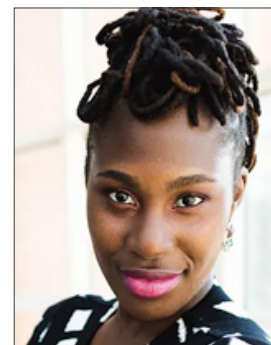
This is one of the most exciting events of the year for the Graduate College, as we highlight the impactful research that our graduate students conduct. We are excited to welcome a diverse group of graduate student finalists from across the university to share their passion and growing expertise. Communicating research findings to a non-specialist audience is an important skill in graduate students' professional development, as it is critical that research is disseminated to the communities who are impacted by the work.

We would like to congratulate each of the finalists for making it to this point. We would like to thank the finalists and all of the graduate students who competed in the preliminary rounds for your participation in 3MT this year. Thank you also goes out to the Graduate College team for putting this event together, as well as to everyone who has come out to support our finalists. We are excited to witness the brilliant, innovative, and meaningful work that our finalists are going to share!

Graduate College Leadership



Rose Marie Ward, PhD
*Dean of the Graduate College
and Vice Provost of Graduate
Education*
The Graduate College
University of Cincinnati



Omotayo (Tayo) Banjo, PhD
Associate Dean
The Graduate College
University of Cincinnati



Tai Collins, PhD
Associate Dean
The Graduate College
University of Cincinnati

Meet the rest of our team at
grad.uc.edu



What is Three Minute Thesis?

First developed by The University of Queensland, Australia in 2008, the international Three Minute Thesis competition challenges students to summarize their research or scholarship for a nonspecialist audience using only three minutes of speech and a single PowerPoint slide.

The first-place winner of the 3MT competition will receive a **\$1,000 award**. Second place will receive **\$750**, and third place will receive **\$500**. The audience will select a **People's Choice winner**, who will receive **\$1,000**. First, second, or third place winners may also be awarded the People's Choice prize.

The winner of UC's annual Three Minute Thesis competition will be registered to compete in the Midwestern Association of Graduate Schools' regional 3MT® competition. Travel expenses will be paid by the Graduate College.

Competition Rules:

- A single static PowerPoint slide is permitted. No slide transitions, animations or “movement” of any description are allowed. The slide is to be presented from the beginning of the oration.
- No additional electronic media (e.g. sound and video files) are permitted.
- No additional props (e.g. costumes, musical instruments, laboratory equipment) are permitted.
- Presentations are limited to 3 minutes maximum and competitors exceeding 3 minutes are disqualified.
- Presentations are to be spoken word (e.g. no poems, raps or songs).
- Presentations are to commence from the stage.
- Presentations are considered to have commenced when a presenter starts their presentation through either movement or speech.
- The decision of the adjudicating panel is final



Samia Alyami

Physics, College of Arts & Sciences
Advisor: Dr. Hans-Peter Wagner

Samia is a 5th year PhD student in experimental nonlinear/nanophotonic condensed matter physics, with a bachelor's degree in science and education. She has served as the Physics Graduate Students Association president for the last four years and the Saudi Arabian Student Association president at UC for the last two years. Her research focuses on studying strong light-matter coupling and resulting new phenomena in gold-coated semiconductor 2-dimensional

transition-metal dichalcogenides. The emerging entangled quantum states can potentially be harnessed for quantum information technologies with drastically improved data acquisition and processing. The light-matter coupling is investigated with optical methods.



Tyler E. Boggs

Biological Sciences, College of Arts & Sciences
Advisor: Dr. Joshua B. Gross

Tyler is a soon to be PhD graduate of the lab of Dr. Joshua Gross in the Department of Biological Sciences. The Gross lab investigates how blind cavefish have evolved to live in extreme cave environments. More specifically, Tyler's work investigates how these fish have adapted to live with very little oxygen. His dissertation utilized an integrative approach and found adaptations at multiple biological scales from large organ level morphology to the regulation of single genes. This work improves our understanding of how animals may be able to rapidly adapt to

new environmental contexts and provides novel avenues to investigate mitigation of certain oxygen related clinical conditions.



Sabrina Bothwell

Psychology, College of Arts & Sciences
Advisor: Dr. Sarah Whitton

Sabrina is a third-year doctoral student in the Clinical Psychology program at UC. She received her bachelor of science (honors) degree from Georgia State University. Her research interests center around the relationships between romantic involvement, mental health, and substance use. She was awarded a University Research Council grant for her master's thesis, for which she used qualitative data to determine LGBTQIA+ individuals' preferences for intimate partner violence prevention programs (IPVPP) and factors that impact their likelihood of participating in IPVPP. Additionally, she used mixed

methods to explore demographic differences. She hopes that her findings will contribute to the development of culturally competent IPVPP for LGBTQIA+ individuals.



Lily Edinam Botsyoe

Information Technology, College of Education, Criminal Justice, Human Services and Information Technology
Advisor: Dr. Jess Kropczynski

Lily is your Privacy Pathfinder. Her research in usable privacy explores how individuals navigate the digital landscape. Using Endsley's model for Situational Awareness, she assesses the effectiveness of interventions like privacy nudges to help users make helpful privacy decisions. Lily Edinam Botsyoe is a PhD student in Information Technology; part of UC's inaugural Presidential Fellowship Program; and a former adjunct instructor. She is an ardent contributor to technology communities and speaks widely on issues relating to the internet with a particular interest in women and youth inclusion, accessibility, cybersecurity, privacy,

and digital sustainability. She has experience working with security frameworks and regulations such as GDPR, ISO27001, and NIST 800. As a believer in the power of technology to accelerate development, her work focuses on human-centered approaches to building technology that ignite real impact for users.



Dr. Shelby Hetzer

Neuroscience, College of Medicine
Advisor: Dr. Nathan Evanson

Shelby just completed her PhD in neuroscience during which time she studied how traumatic brain injuries affect vision. She is an avid reader and loves public speaking, thus, she thanks her husband and pets for listening to her rehearse all these years.



Christine Ochs-Naderer

English, College of Arts & Sciences
Advisor: Dr. Christopher Carter

Christine is a PhD student in English Rhetoric and Composition. Her research interests include the rhetoric of sports, writing and rhetoric in interpersonal relationships, rhetoric of grief/loss, and trauma-informed research practices. Her research project on women in sports was started in a graduate course on the rhetoric of social movements.



Aaron Mallory

Criminal Justice, College of Education, Criminal Justice, Human Services and Information Technology
Advisor: Dr. Christina Campbell

Aaron is a first-year PhD student in criminal justice. His goal is to find an antidote that will eradicate one of the most significant public health issues in our country: inner-city gun violence. He has spent the last seven years working in mental health with boys and men impacted by the criminal justice system. His research focuses on utilizing virtual reality (VR) to develop and simulate risky situations in which youth charged with illegally possessing firearms may find themselves in. Youth will engage in cognitive behavior intervention, in which they will learn skills to manage risky situations. The simulated VR will serve as a simulated test in which we will measure skill acquisition, effectiveness of creating a simulated environment, and the ability of VR to strengthen skill acquisition. These skills, when learned, have the potential to reduce the risk of a youth being a victim or perpetrator of gun violence.



Tolulope Odunola

Environmental Engineering, College of Engineering and Applied Sciences
Advisor: Dr. Patrick Ray

Tolu is a PhD candidate in Environmental Engineering. Currently, she is exploring research gaps and scholarly debates in robust decision-making, water resources planning, and adaptation under uncertainty, climate-responsive economic evaluation, and spatial and distributional equity considerations in economic evaluation under climate uncertainty amongst others. She is passionate about making an impact in human communities, one sustainable water resource project at a time. Outside of research, she enjoys reading historical fiction novels, creative writing and art, and exploring the beauty of nature.



Nicole Pek

Molecular and Developmental Biology, College of Medicine

Advisor: Dr. Mingxia Gu

Nicole is a PhD candidate in the Molecular and Developmental Biology Program. Her thesis research involves using complex stem cell-based organoid models to uncover the intricacies of lung development and disease. Nicole's research is supported by the American Heart Association Pre-Doctoral Fellowship, NIH LungMAP2 Pilot Award, and the Graduate Student Government Research Fellowship Award.



Pradeep Ramtel

Environmental Engineering, College of Engineering and Applied Sciences

Advisor: Dr. Dongmei Feng

Pradeep is a PhD student in Environmental Engineering. His research focuses on utilizing remote sensing and machine learning to study phosphorus levels in rivers across the United States.



Liang (Lia) Shen

Marketing, Carl H. Lindner College of Business

Advisor: Dr. Rashmi Adaval

Lia is a PhD candidate in Marketing at the Lindner College of Business. Her research sits at the intersection of marketing and psychology. She uses research from both these areas to improve conservation efforts. She focuses specifically on how to raise funding for species that are ignored because they look unattractive. Animals such as the aye-aye, the purple frog, or the blobfish are unattractive to look at and receive fewer donations despite their importance to the ecosystem. She examines ways in which we can reduce prejudice against them and come up with strategies to increase funding for them.



Ahmed Youssef

Physics, College of Arts & Sciences

Advisors: Dr. Joachim Brod, Dr. Jure Zupan, and Dr. Phil Ilten

Ahmed grew up in Germany and started his academic journey with a bachelor's degree in physics at the Ruhr University Bochum. In his final undergraduate year, he had the opportunity to do research as a visiting student at the University of Cincinnati, which led him to pursue his PhD within the High Energy Theory Group at UC, starting in spring 2020. Ahmed's research focuses on using AI to simulate physical processes using models like those used for ChatGPT or image generation. Beyond his studies, Ahmed has a strong interest in entrepreneurship, and he has a passion for travel and boxing. He is a member of the UC boxing team, competing at regional and national collegiate

boxing last year.

THANK YOU!

Many thanks to our partners for the 2024 Three Minute Thesis Competition

Judges

Dr. Karley Riffe, *Assistant Professor, Higher Education*

Dr. Jo El Schultz, *Associate Professor, Pharmacology and Systems Physiology*

Mercedes Johnson, *Director, African American Cultural & Resource Center*

Stuart Skelton, *Professor, Voice*

Dr. Farrah Jacquez, *Assistant Vice President, Office of Research*

Valeria Andrade Hartinger, *PhD Candidate, Psychology, 2023 UC Three Minute Thesis Winner*

Partners

Dr. Melissa Jacquart, *Assistant Professor, Philosophy*

Dr. Cassidy Ellis, *Assistant Professor, Educator, Communications*

Anita Flesher, *Assistant to the Dean, College of Medicine*

UC Center for Public Engagement with the Sciences

UC Graduate College Staff

UC 3MT Event Organizers, Caitie Norrie and Jordan Crawley

Thank you for attending. The Graduate College wants to see you again!

The Graduate College offers professional development, mental health, and student celebration events throughout the year. Get skilled, healthy, and happy with your fellow grad students!

- **New Student Welcome & Orientation**, first Friday of each semester
- **Doctoral Hooding and Master's Recognition graduation ceremony**, final week of each semester
- **Three Minute Thesis Competition**, preliminary rounds and final competition, every January through February
- **Graduate Student Appreciation week**, every April
- **World Kindness Week**, every November
- **Preparing Future Faculty opportunities year-round**
- **Professional development workshops year-round**
- **Mental Health workshops year-around**
- **Post Doctoral Student Appreciation Week**, September
- **First Generation Student event**, November

Stay up-to-date about upcoming Graduate College events! Read the GradCurrents student newsletter on Wednesdays, join the Graduate College on [GetInvolvedUC](#) (a one-stop site for student events and programming), or follow [@gradcollegeuc](#) on social media.

The Graduate College on GetInvolved UC



Meet the Graduate College Staff



Come see Aaron Mallory and Lily Botsyoe on April 15, 3:30-5 PM, for the Brilliant Bearcats Showcase - A Presidential Fellowship Event, also in Kresge Auditorium (MSB E701)!

BRILLIANT BEARCATS PRESIDENTIAL FELLOW TALKS

Join the Graduate College for a peek into the ongoing research of our Presidential Fellows. Learn how they will change the world through discovery and innovation, one powerful talk at a time.

April 15 - 3:30 - 5:00 PM
Kresge Auditorium (MSB E701)



The Office of Research is accelerating research at the University of Cincinnati and economic growth in our region by connecting industry, government, and community leaders with the University of Cincinnati thought leaders and innovators. Together, we can positively impact the lives, environment, and the economy in our region and beyond.

The Office of Research provides training and signature events for UC community members.



Accelerating research at UC Cincinnati and economic growth in our region.

research.uc.edu

The African American Cultural & Resource Center (AACRC)



Habari Gani! (What Good News Do You Have?)
Njema Habari Gani (I have good news, how about you?)

The AACRC fosters an atmosphere where a lively conversation is welcomed and encouraged, leadership development and academic success are prioritized, and quiet study spaces are regularly utilized. The AACRC also hosts several large-scale traditional programs that are annual marquee events of the Black experience at the University of Cincinnati.

The African American Cultural & Resource Center (AACRC) with Graduate Students:

Akwaaba Village Keeping Session
Black Graduate Student Welcome
Research Recognition at Kuamka
Awardees at Ushindi
Tyehimba Participant
BGPSA Support
Beyond the Bachelors

www.uc.edu/aacrc

Visit the **AACRC** in the 60 W. Charlton building on West Campus

