



A Tennessee Flagship Carnegie R1 Research Institution

RESEARCH + **INNOVATION**

NEWSLETTER



McKenna Joins Esteemed Group as an Elected AAAS Fellow

American Association for the Advancement of Science is the world's largest multidisciplinary scientific society and a leading publisher of cutting-edge research.

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University of Memphis Research Council Holds Spring Meeting

The UMRC, responsible for research leadership and governance at the UofM, will hold its next spring meeting at the FedEx Institute of Technology on Thursday, April 3.

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AI Chatbot to Support Student Mental Health

Using AI to develop an innovative approach to addressing the growing mental health challenges faced by college students.

[Read Full Story](#)



Building Global Bridges in Public Health

Signing MOU with College of Public Health and Health Informatics at King Saudi bin Abdulaziz University for Health Sciences in Saudi Arabia.

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ACRE Showcased in Latest Lab Open House Event

Lab Open House series held by Research & Innovation highlights innovative work and resources at the University.

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FULBRIGHT

UofM Fulbright Alumni Network Creation

Building a stronger community and shared purpose to connect past and present Fulbright recipients at the University of Memphis.

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Asthma Mechanisms and AI Integration

Integrated platforms for artificial intelligence-assisted asthma prediction and asthma mechanistic studies.

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Generative AI in Game Design

With the rise of generative AI, research is enhancing player experience through character and narrative creation.

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Thirteen New Fine Arts, Humanities and Social Sciences Projects for 2025

The Fine Arts, Humanities and Social Sciences Support Program encourages the growth of externally-funded research.

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Research in a Minute: Biomechanics and the Human Body

This month's spotlight features Dr. Max Paquette and his goal to reduce injuries and enhance an athlete's performance.

[Read Full Story](#)



National Science Foundation Funding

Learn more about recent funding opportunities from the National Science Foundation.

[See Full List](#)



Calendar of Events: April 2025

Learn more about research, UMRF Research Park and FedEx Institute of Technology events.

[See Full List](#)

Research Awards March 2025

Dr. Carolyn Kaldon awarded \$650,000 from U.S. Department of Education.

Dr. Janay Camp awarded \$439,422 from U.S. Environmental Protection Agency.

Dr. Melanie Burgess awarded \$416,312 from U.S. Department of Education.

Dr. Eric Bailey II awarded \$309,504 from U.S. Department of Education.

Dr. Shahram Pezeshk awarded \$249,891 from (New Prime) Federal Highway Administration.

Dr. Claudio Meier awarded \$249,680 from the U.S. Geological Survey.

Dr. Chunrong Jia awarded \$211,557 from the U.S. Environmental Protection Agency.

Dr. Manob Saikia awarded \$175,000 from the National Science Foundation.

Dr. Emily Puckett awarded \$87,000 from the National Institutes of Health.

Dr. Alexander Headley awarded \$73,903 from the Sandia National Laboratories.

Dr. Robert Smalley awarded \$62,000 from the U.S. Geological Survey.

Dr. Jill Dapremont awarded \$42,444 from National Institutes of Health.

Whitney Hardy awarded \$39,100 from Tennessee Department of Economic and Community Development.

Dr. Fanta Gutema awarded \$37,470.70 from the Reckitt Global Hygiene Institute.

Dr. Gretchen Peterson awarded \$30,000 from Ford Philanthropy.

Dr. Richard Bloomer awarded \$25,000 from U.S. Department of Health and Human Services.

Dr. Gary Stinchcomb awarded \$18,600 from The Leakey Foundation.

Dr. Latrice Pichon awarded \$13,540 from The National Institutes of Health.

Dr. Lara Condon awarded \$10,371 from the Bill and Melinda Gates Foundation.

Dr. Thierry Morlet awarded \$6,818 from the James S. McDonnell Foundation.

Dr. Mary Tucker awarded \$5,000 each from the Tennessee Valley Authority.

** Data reported on the 18 of each month. Awards finalized after the 18 will be reported the following month.*

[Full project and award details available here.](#)

Upcoming Events & Announcements



FedEx Institute of Technology's Technology Serving Humanity Speaker Series

welcomes

Dr. Aravind Chandrasekaran, The Ohio State University

This session explores how AI is transforming supply chains, with a deep dive into current trends, future outlooks and real-world use cases. Key takeaways include strategies for leveraging emerging technologies like Generative AI and Agentic AI to stay ahead of the curve.

Talk Title: Responsible AI for Effective Governance

Thursday, April 3 | 2 PM

Fishbowl (203/205) | FedEx Institute of Technology

RSVP



FedEx Institute of Technology Environmental Humanities Research Cluster Kickoff

The Environmental Humanities Research Cluster at the University of Memphis, within the FedEx Institute of Technology, is dedicated to integrating the humanities with the natural sciences to address contemporary environmental crises. Led by **Dr. Amanda Gaggioli** from the Department of History and **Dr. Youngsang Kwon** from the Department of Earth Sciences, the cluster fosters interdisciplinary and integrative research and curriculum development, examining human-environmental relationships across time and space.

Faculty from diverse disciplines across the humanities, social sciences and STEM fields, are engaging collaboratively to explore environmental issues such as climate change, biodiversity loss, pollution, resource

management, land use, sustainability, water security, energy transitions, hazards and disasters, while emphasizing their cultural and political dimensions. By infusing humanistic perspectives into scientific inquiry, this initiative fosters critical engagement with environmental challenges to develop holistic and socially informed solutions.

This initiative builds on existing strengths at the University and aims to create a comprehensive, integrative research and curriculum program, equipping faculty, students and the public with the knowledge and skills to address urgent environmental issues at local, national and global levels.

For more information on this new research cluster, contact Gaggioli at gaggioli@memphis.edu.

Friday, April 4 | 11 AM-12:30 PM
FedEx Institute of Technology Fishbowl (203/205)

RSVP



MEMSEC – DEFCON901

Memphis InfoSec Social
OWASP Zed Attack Proxy

Are you curious about how to uncover vulnerabilities in web applications and understand how attackers might exploit them? OWASP ZAP is your ultimate tool for learning and practicing web security. It's not just about finding flaws — it's about understanding the risks, seeing how they work and learning how to fix them. By walking through real scenarios, ZAP lets you simulate attacks like SQL injection and XSS, giving you a practical way to see how vulnerabilities happen and how to defend against them. In this session, dive into ZAP, explore its features and gain hands-on experience to start identifying and mitigating security issues like a pro. Whether you're new to security or looking to sharpen your skills, this is a chance to learn by doing and take control of your application's defenses.

This meetup is FREE and open to the public with Garibaldi's pizza!

Friday, April 4 | 5 PM

FedEx Institute of Technology | Innovation Classroom (225)

REGISTER



**FedEx Institute of Technology's
Technology Serving Humanity Speaker Series**
welcomes

Dr. Subodha Kumar, Temple University

This session explores how AI is transforming supply chains, with a deep dive into current trends, future outlooks and real-world use cases. Key takeaways include strategies for leveraging emerging technologies like Generative AI and Agentic AI to stay ahead of the curve.

Talk Title: AI-Driven Supply Chain Analytics

Monday, April 7 | 3 PM
Virtual | Microsoft Teams

RSVP



Invention Disclosure 101 Workshop for the University of Memphis and TTAC Partner Institutions

Focused on protecting your research and innovation before you publish, patent or pitch, understanding the essentials of IP and its policies.

The University of Memphis Office of Technology Transfer invites you to join an upcoming workshop focused on protecting your research and innovation before you publish, patent or pitch. Whether you're conducting cutting-edge research or mentoring student innovators, this session will help you understand the essentials of intellectual property (IP) and invention disclosure policies.

Details

Date: Thursday, April 10

Time: 3-4:00 PM CST

Location: Zoom

[Register »](#)

Presented by Holly Meadows, JD, RTTP, with TreMonti

What You'll Learn:

- Why invention disclosure is crucial before sharing your research publicly
- Bayh-Dole and funding implications
- What qualifies as an invention or innovation
- Types of intellectual property
- Key information needed to complete an invention disclosure form
- Common publication pitfalls that can jeopardize IP rights
- How to work effectively with your institution's Technology Transfer Office and Launch Tennessee

For online access to the invention disclosure form of the University of Memphis, access via this [link »](#).

If you have any questions on the invention disclosure process, contact Dr. Hai Trieu at hhtrieu@memphis.edu or Ido Sarig at isarig@memphis.edu.

We hope to see you there! Register now to reserve your spot.

Thursday, April 10 | 3 PM

Virtual | ZOOM

REGISTER



FedEx Institute of Technology's 901 AI Meetup
welcomes

Dr. Ujjwal Maulik

Professor of Computer Science and Engineering
Jadavpur University

Talk Explores the Future of AI, Machine Learning and Healthcare Innovation

This lecture will explore current trends and challenges in Artificial Intelligence (AI) and Machine Learning (ML), with an emphasis on their applications in healthcare and biomedical research. Key topics will include foundational concepts in ML, as well as the growing importance of Deep Learning (DL), Graph Neural Networks (GNN) and Explainable AI. While DL has shown tremendous success in image analysis, GNNs are increasingly valuable for interpreting unstructured data, such as biological networks involving genes, drugs and diseases.

A major focus of the talk will be the role of ML in advancing therapeutic strategies and early disease diagnosis. Traditional treatment approaches often rely on a one-size-fits-all model; however, precision medicine aims to tailor therapies based on individual biological conditions. The presentation will highlight how DL and GNN techniques are being applied to build smarter, more personalized healthcare systems — including insights from research-driven startup ventures.

The session will also address the growing relevance of Explainable AI, which is essential in ensuring transparency and trust in medical expert systems. By making AI decisions more understandable, these tools can better support clinical decision-making and patient care. And will examine how Data Science and ML are reshaping the research and development landscape. Both the advantages and limitations of sophisticated ML techniques will be discussed, offering a realistic perspective on the future potential — and the challenges — of these transformative technologies.

Thursday, April 24 | 3:30-5 PM

FedEx Institute of Technology | Methodist Presentation Theatre (MPT 103)

RSVP



March Professional Development Sessions

Recorded Learning Opportunities for Faculty

The Division of Research & Innovation hosts a variety of workshops, networking events and other professional development throughout the year, and any events that can be recorded and uploaded to the training archive (UofM log-in required). Below are the events from March 2025 that have been recorded and uploaded to the archive:

- [IRB Virtual Workshop](#) (March 5)
- [NIH R15 Cohort Q&A Session No.1](#) (March 6)
- [Peer Review Process & Review Panels Workshop](#) (March 7)
- [Reporting Other Activities in Cayuse Webinar](#) (March 17)

Upcoming professional development and other events can be found on the calendar [here](#). If you have any questions about the recorded events or have difficulty accessing any of the materials, please contact researchdev@memphis.edu.



UofM Faculty Expert List

Topics Across Various Subjects, Areas and Fields

Calling all University Partners:

As UofM marketing finalizes the new look of our UofM Newsroom, they are creating a **University Faculty Expert** list to connect faculty members with the media on news and trending topics across various subjects, areas and fields.

Please share this survey with faculty who would be interested in engaging with media requests and are open to discussing their research and insights. The ultimate goal is to create a centralized list across the University and begin to proactively pitch our experts.

Thank you for your assistance with this project.

[UofM FACULTY EXPERT LIST SURVEY](#)

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