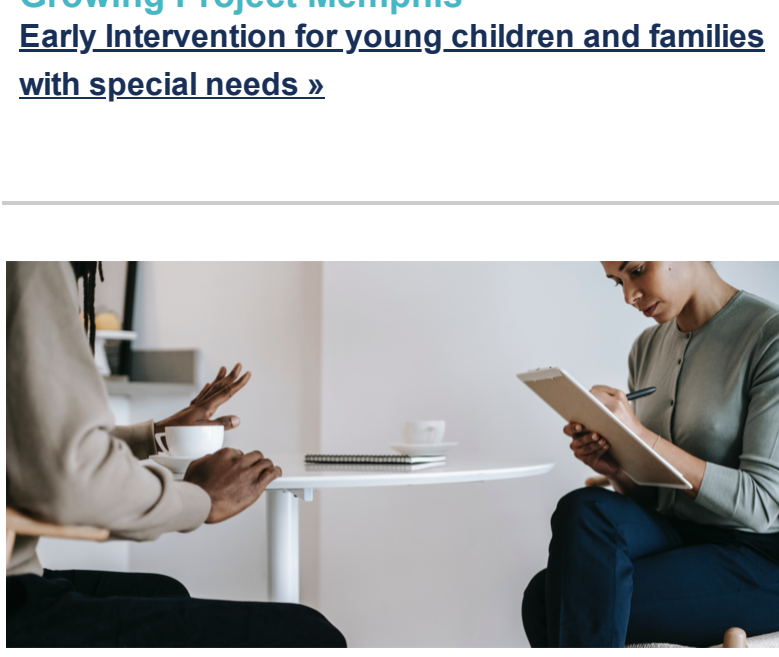


# INNOVATION

## NEWSLETTER

RESEARCH. TECHNOLOGY. ACHIEVEMENTS.

JULY 2021 • COVID-19 Updates



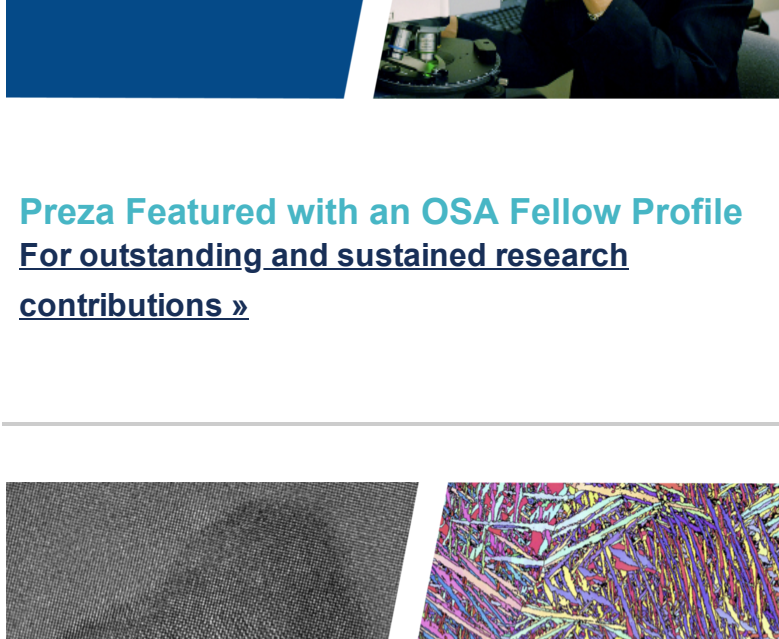
### Growing Project Memphis Early Intervention for young children and families with special needs »



### UofM Awarded \$1.89M Health Workforce Grant To fund practicums and internships »



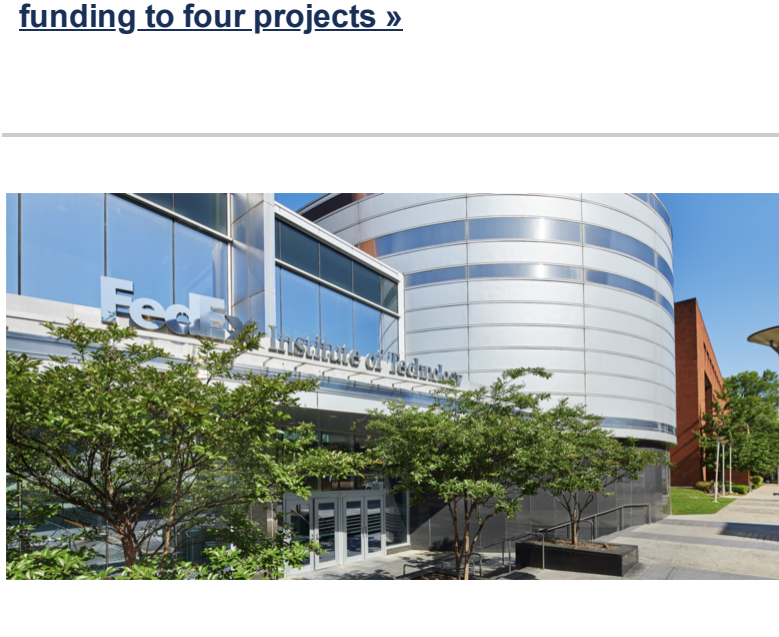
### University of Memphis and Meharry Medical College Launch PECIR Program Driving research collaboration »



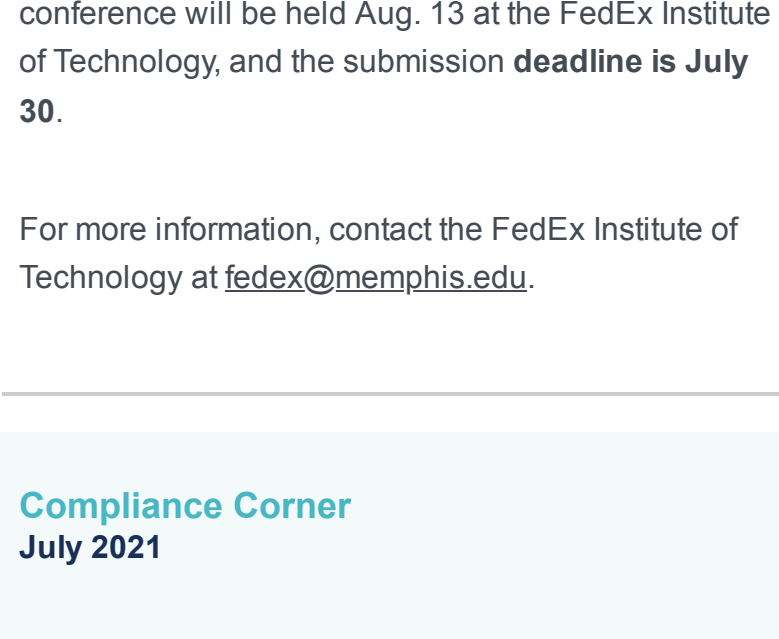
### Biological Sciences Faculty Receives \$1.3M, 5-year NSF Grant Investigating chemosensory evolution in beetles »



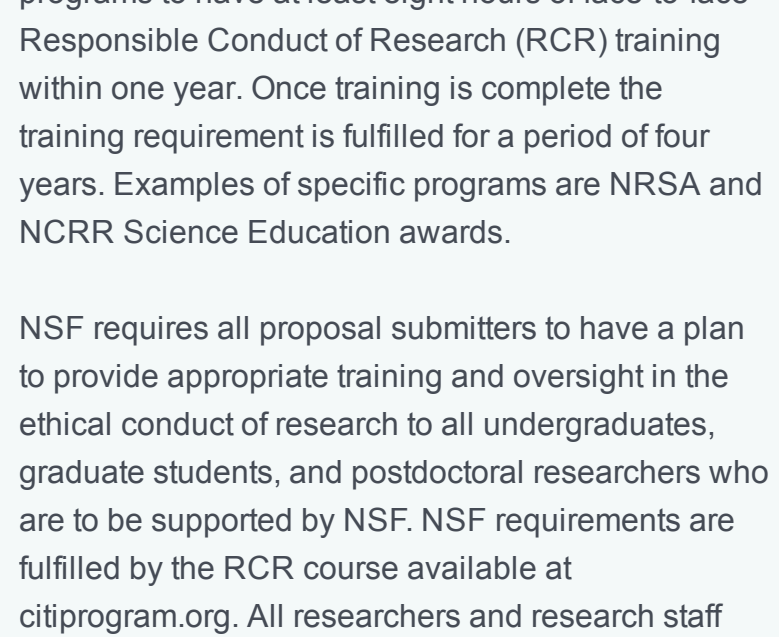
### Choi Receives NSF Funding Developing an integrated modeling platform for tectonics, earthquake cycles and surface processes »



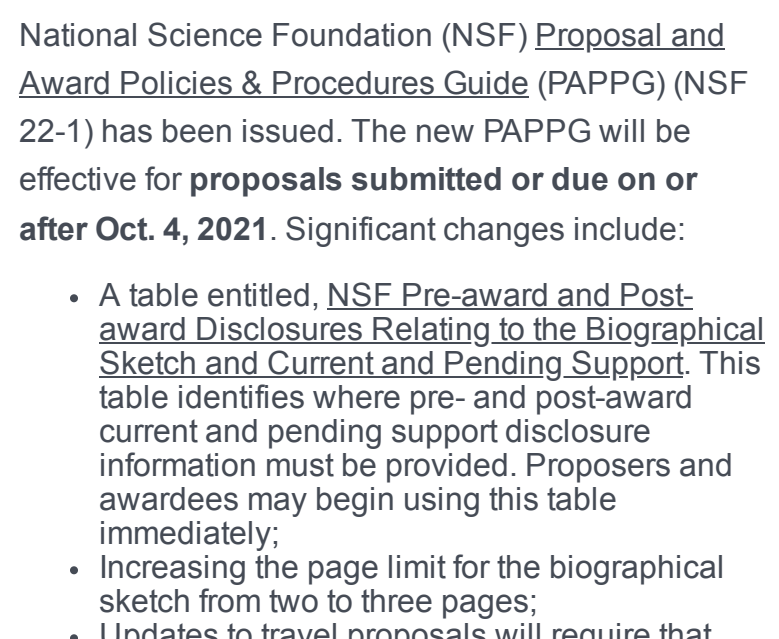
### Preza Featured with an OSA Fellow Profile For outstanding and sustained research contributions »



### Engineering Faculty's Research Featured in UofM Art Museum Making the connection between science and art »



### UofM Computer Science Graduate Leads NSF-Funded AI Institute Alum runs \$20 Million center to bring artificial intelligence into the classroom »



### Fine Arts, Humanities and Social Sciences Support Program Division of Research & Innovation awards funding to four projects »



### Applied Quantum Approaches Mini- Conference Call for Presentations

The FedEx Institute of Technology is hosting an inaugural **Applied Quantum Approaches Mini-Conference** in order to highlight and enhance communities of research around this critical emerging technology. Any researchers working in quantum-related research areas may apply. Click [here](#) to view the call for presentations. The conference will be held Aug. 13 at the FedEx Institute of Technology, and the submission **deadline is July 30**.

For more information, contact the FedEx Institute of Technology at [fedex@memphis.edu](mailto:fedex@memphis.edu).

### Compliance Corner July 2021

According to NIH, Responsible Conduct of Research (RCR) is "the practice of scientific investigation with integrity. It involves the awareness and application of established professional norms and ethical principles in the performance of all activities related to scientific research." RCR compliance is important to meet federal regulations, UofM policies, produce sound science, and create public safety and trust in science.

The regulations surrounding the responsible conduct of research focus on required training in two key areas of sponsored projects: NSF and NIH training grants.

NIH requires all federal funded trainees of specific programs to have at least eight hours of face-to-face Responsible Conduct of Research (RCR) training within one year. Once training is complete the training requirement is fulfilled for a period of four years. Examples of specific programs are NRSA and NCRR Science Education awards.

NSF requires all proposal submitters to have a plan to provide appropriate training and oversight in the ethical conduct of research to all undergraduates, graduate students, and postdoctoral researchers who are to be supported by NSF. NSF requirements are fulfilled by the RCR course available at [citiprogram.org](http://citiprogram.org). All researchers and research staff are encouraged to take the RCR course.

Please contact [researchcompliance@memphis.edu](mailto:researchcompliance@memphis.edu) with any questions about meeting these requirements.

### Office of Sponsored Programs NSF Proposal and Award Policies & Procedures

National Science Foundation (NSF) **Proposal and Award Policies & Procedures Guide (PAPPG)** (NSF 22-1) has been issued. The new PAPPG will be effective for **proposals submitted or due on or after Oct. 4, 2021**. Significant changes include:

- A table entitled, **NSF Pre-award and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending Support**. This table identifies where pre- and post-award current and pending support disclosure information must be provided. Proposers and awardees may begin using this table immediately.
- Increasing the page limit for the biographical sketch from two to three pages;
- Updates to travel proposals will require that AORs certify that prior to the proposer's participation in the meeting for which NSF travel support is being requested, the proposer will assure that the meeting organizer has a written policy or code-of-conduct addressing harassment.

See full details [here](#). For further information, please contact the Office of Sponsored Programs (OSP) at [osp@memphis.edu](mailto:osp@memphis.edu).

### Research Awards June 2021

**Dr. Laura Casey**, professor in the Department of Instruction and Curriculum Leadership, was awarded \$1,622,400 and \$1,111,500 from the Tennessee Department of Intellectual and Developmental Diabetes with the U.S. Department of Health and Human Services for her projects "UofM Home/Community Based Early Intervention (HCBEI) Services" and "UofM CBEL Services."

**Dr. Xuan Zhao**, associate professor in the Department of Chemistry, was awarded \$475,000 from the National Science Foundation for his project "Catalytic H2 Evolution by Molecular Cobalt Complexes with Pentadentate Ligands in Aqueous Solutions."

**Dr. Eunseo Choi**, associate professor in the Center for Earthquake Research and Information (CERI), was awarded \$443,830 from the National Science Foundation for his project "Elements: Developing an integrated modeling platform for tectonics, earthquake cycles and surface processes."

**Dr. Joel Bumgardner**, professor and chair of the Department of Biomedical Engineering, was awarded \$437,292 from the National Institutes of Health for his project "Chitosan Guided Bone Regeneration Membranes for Dual Local Delivery of Simvastatin and Raspberry Ketone."

**Dr. Robin Poston**, dean of the Graduate School and professor in the Department of Business Information and Technology, was awarded \$301,035 from Alion Science and Technology with the Department of Homeland Security / Air Force Institute of Technology for her project "Test and Evaluation (T&E) course instruction in support of information technology systems for T&E Managers on behalf of DHS S&T Test and Evaluation Division (TED)."

**Dr. James Whelan**, clinical health research professor in the Department of Psychology, was awarded \$180,000 from the Tennessee Department of Mental Health and Substance Abuse Services for his project "Gambling Treatment Services FY22."

**Dr. Thomas Sutter**, professor and Feinstone Chairman of the Department of Molecular Biology, was awarded \$179,375 from the National Institutes of Health for his project "A core transcription factor complex of the aryl hydrocarbon receptor."

**Dr. Sabyasachee Mishra**, associate professor and Faudree Professor in the Department of Civil Engineering, was awarded \$120,000 from the Memphis Area Transit Authority for his project "Asset Management Plan for Memphis Transit Fleet."

**Dr. Jessica Jennings**, assistant professor in the Department of Biomedical Engineering, was awarded \$111,400 from the National Science Foundation for her project "CAREER: Tethered biofilm dispersal signals for long-term protection of engineering materials," and \$25,000 from Abbott Laboratories for her project "Antimicrobial Susceptibility Evaluation."

**Dr. Bernie Daigle**, assistant professor in the Department of Biological Sciences, was awarded \$99,965 from the U.S. Army Research Office for his project "Knowledge-Assisted Multi-omic Biomarker Identification for Posttraumatic Stress Disorder."

**Dr. Tomoko Fujiwara**, associate professor in the Department of Chemistry, was awarded \$68,919 from Texas Tech University with the National Science Foundation for her project "CPS: Small Inkjet Printed Flexible Electronic CPS with Context-aware Events of Interest Detection."

**Dr. Firouzeh Sabri**, professor and chair of the Department of Physics and Material Sciences, was awarded \$61,032 from Oak Ridge Associated Universities for her project "ODRD University partnership."

**Dr. Latrice Pichon**, associate professor in the Division of Social and Behavioral Sciences, was awarded \$49,823 from Meharry Medical College with the National Institutes of Health for her project "Tennessee COVID-19 Community-engaged Research Coalition (TCCRC)."

**Dr. John Sabatini**, distinguished research professor in the Department of Psychology and the Institute for Intelligent Systems, was awarded \$46,602 from the Education Testing Service with the U.S. Department of Education for his project "Exploring and Assessing the Development of Students' Argumentation Skills."

**Dr. Randolph Dupont**, professor in the Department of Criminal Justice, was awarded \$45,000 from the City of Memphis Police Department for his project "City of Memphis Police CIS."

**Dr. Wesley James**, associate professor in the Department of Sociology and director of the Center for Community Research and Evaluation, was awarded \$15,000 from the A Step Ahead Foundation for his project "ASAF Evaluation."

**Dr. Shawn Brown**, associate professor in the Department of Biological Sciences, was awarded \$12,575 from Mississippi State University with the Mississippi Department of Agriculture & Commerce for his project "Sweet potato as a natural energy food prebiotic to improve health and endurance."

**Dr. Carolyn Kaldon**, research associate professor in the Center for Research in Educational Policy, was awarded \$6,183 from Battelle for her project "TSIN Rural STEM Collaborative General Evaluation."

**Dr. David Arellano**, associate professor in the Department of Civil Engineering, was awarded \$3,097 from Aerix Industries for his project "Direct Shear Testing of Cellular Concrete."

**Dr. Ryan Hughes**, FedEx Institute of Technology post-doctoral fellow, was awarded \$1,585 from the Hera Health Solutions Inc. for his project "To develop an in-vitro assay to evaluate morphological changes of an implantable nanofiber due to fluid absorption."

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

[Research + Innovation News](#)

[Quick Guide to Research & Sponsored Programs](#)

[Research Compliance](#)

[FedEx Institute of Technology News](#)

[Research Clusters](#)

[Emerging Tech Training](#)

[DevMemphis: Memphis Software Developers](#)

July 6 | 6-7:30 PM | FIT 225

[Machine Learning/Data Sciences/R](#)

July 6 | 7-8 PM CST | Virtual

[MemPass/Power BI](#)

July 8 | 5:30-7:30 PM | FIT 225

[FedEx Institute of Technology Emerging Tech Training: Enterprise Business Agility](#)

July 12-16 | 8:30 AM-12:30 PM | Virtual

[FedEx Institute of Technology/Blockchain901 Series: Blockchain Enterprise Application \(1\)](#)

July 13 | NOON-1:30 PM | Virtual

[FedEx Institute of Technology Emerging Tech Training: Microsoft Power BI](#)

July 13-15 | 8 AM-2 PM | Virtual

[Memphis Web Workers](#)

July 13 | 6-8 PM | Virtual

[Memphis M365](#)

July 15 | 3-5 PM | Hybrid

[Memphis Game Developers](#)

July 17 | 6-8 PM | Virtual

[Memphis Python](#)

July 19 | 6:30-8:30 PM | Virtual

[FIT Blockchain901 Series: Blockchain Enterprise Applications \(2\)](#)

July 20 | NOON-1:30 PM | Virtual

[Memphis .NET](#)

July 22 | 6-8 PM | Virtual

[Memphis Agile](#)

July 22 | 6-7:30 PM | FIT 225

[UX/UI Bytes](#)

July 23 | 11:30 AM-12:30 PM | Virtual

[National Flight Academy and FedEx: STEM Experience Week](#)

July 26-30 | 8 AM-4 PM | FIT Zone, Methodist Presentation Theatre, Lobby

[Memphis PHP](#)

July 27 | 6:30-8 PM | FIT 225

[FedEx Institute of Technology/Blockchain901 Series: Blockchain Enterprise Applications \(3\)](#)

July 28 | NOON-1:30 PM | Virtual

Research for the newsletter? [Contact us](#).