MEMPHIS.

**June 2019** 

**RESEARCH** 

University of Memphis Research + Innovation Magazine Leading Through Innovation

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## **UofM Commits \$2.3M to** fund 43 Carnegie R1 **Doctoral Fellowships** Partnership to boost doctoral candidates

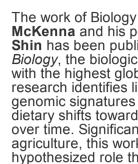
On April 26, EVP for Research **Dr. Jasbir Dhaliwal** and provost **Dr. Tom Nenon** joined chairs, graduate coordinators and deans of STEM departments to formalize agreements supporting 43, \$27,000 doctoral fellowships.

"Increasing doctoral production in STEM areas is an important component of our campus-wide goal to become Carnegie Tier 1 research ready in five years," says Dhaliwal. "We are pleased to partner with our STEM Departments and academic leadership to make this happen.'

Carnegie R1 Doctoral Fellowships are twoyear awards, designed to significantly increase the pipeline of qualified candidates. Academic units commit to continue funding to support these students beyond the initial fellowship period with an emphasis on securing external research funds to cover these costs

For more information, contact research@memphis.edu.

UofM's McKenna published in Genome



impact factor in its field

The work of Biology professor Dr. Duane McKenna and his post-doc Seunggwan **Shin** has been published in *Genome Biology*, the biological sciences journal with the highest global impact factor. The research identifies lineage-specific genomic signatures that accompanied dietary shifts towards plants in beetles

Biology Journal

recognized as the highest-ranked

UofM's Howell Receiving **Prestigious** Awards from Society of Clinical **Psychology Dr. Katie Howell**, associate professor in the Department of Psychology and director of Child and Family Studies Research, is set to receive two prestigious awards this

August. The Society of Clinical Psychology

Distinguished Professional Contributions to

has announced Howell will be award the Theodore Blau Early Career Award for

accomplishment and promise in Clinical

Howell will also receive the Diane J. Willis

Early Career Award. This award is named

after Willis to honor her life-long advocacy on behalf of children and families. The

Clinical Psychology. This award is presented for professional

award aims to advance public understanding of mental health and

Psychology.

improve the well-being of children and families through policy and service. It also encourages promising early career psychologists to continue work in this Please join us in congratulating Howell for this remarkable accomplishment, made all the more special by having two independent divisions of the American Psychology Association simultaneously recognizing her excellence in her scholarship.

Braasch

The Society for Text & Discourse has given **Dr. Jason L.G. Braasch** the 2019 Tom

Trabasso Young Investigator Award. This award goes to an outstanding researcher

who embodies the spirit of Tom Trabasso. It is given each year to a member of the Society who has received his or her PhD

within the last ten years. Congratulations

Learn more about Braasch's publications.

books, presentations and outreach

Dr. Braasch!

efforts here.

Receives Award

2019 Winner of the

Investigator Award

Tom Trabasso Young

**UofM Professor Thurston** Receives Award Selected to Receive Foremothers Mentorship Early Career Award

**Dr. Idia Thurston**, assistant professor in the Department of Psychology, has been

selected to receive the Foremothers

Mentorship Early Career and Career Excellence Award from APA Division 35.

This award celebrates Black women's

creating professional access and opportunity, developing community

networks, providing one-on-one

students, peers, and/or colleagues.

as we congratulate Thurston on this

achievement!

professional support and advocating for

The award will be given at the upcoming

annual meeting of American Psychology

Association in Chicago this August. Join us

commitment to supporting the growth and development of students, peers and/or colleagues in their professional careers. This award recognizes professionals who demonstrate significant contributions to the area of mentorship, particularly as it relates to encouraging the perpetuity of Black women in psychology. Contributions and service as a mentor may be wideranging and include clinical supervision,

**2019 Herff Faculty Research Grant Awards** Committee Selects Two Recipients The Herff College of Engineering recently announced the selection of the HCOE Faculty Research Grant recipients for 2019. A subcommittee of the Research Workstream Team reviewed submissions and selected two awardees. Dr. Aaryani Sajja from the Department of Biomedical

Engineering and **Dr. Maryam Salehi** from

Sajja will be conducting a research project entitled "A 3D Model Based Simulation of Hepatic Iron Overload and

Steatosis for Predicting Tissue Relaxivity

by Magnetic Resonance Imaging." Salehi

project entitled "Investigating the Impacts

Degradation on their Heavy Metal Uptake

Congratulations to both Sajja and Salehi!

We look foward to successful outcomes

and further research activity generated

the Department of Civil Engineering.

will be conducting a research

of Microplastics Environmental

in Stormwater."

from this investment.



The Department of Mathematical Sciences

International Conference on Design of Experiments (ICODOE 2019). Held at the University of Memphis FedEx Institute of Technology, the event was sponsored by the National Science Foundation, National Security Agency and SAS.

The primary objective of ICODOE is to encourage and support early career

from across the world who are actively

research in the area of experimental design and its applications to various

pursuing theoretical and methodological

researchers, graduate students and

underrepresented groups while also bringing together outstanding researchers

at the UofM recently held the fifth

Participants representing 12 nations and more than 20 states were present for the conference. Applied GIS Workshop Series

The University of Memphis is offering

Registration and more information

**Drone Image Processing with** 

GIS Fundamentals with ArcGIS Pro

Advanced GIS with ArcGIS Pro

summer workshops on applied GIS topics.

**UofM Summer 2019** 

available here.

**DRONE2MAP** 

June 10 | 9 AM-4 PM

June 11 | 9 AM-4 PM

June 12 | 9 AM-4 PM

GIS Applications to Public Health June 13 | 9 AM-4 PM RESEARCH **CLUSTERS** 

AGRICULTURE & FOOD TECHNOLOGIES

**BIOLOGISTICS** 

DATA SCIENCE

DRONES

**New Research Awards** 

Dr. Charles Langston, professor and director for the Center for Earthquake Research and Information (CERI), was

Geological Survey (USGS) for his project "Seismotectonics and Seismic Potential

awarded \$184,000 from the U.S.

of Three Intraplate Seismic Zones."

May 2019

### Dr. Stephanie Ivey, associate dean for research of the Herff College of Engineering and professor in the Department of Civil Engineering, was awarded \$77,284 from the US Department of Transportation (US DoT) in collaboration with the Tennessee

Department of Transportation for her project "Analysis of Demographic,

Socioeconomic and Regional Differences

in TDOT Consumer Satisfaction Survey."

Dr. Elena Delavega, associate professor in the Department of Social Work, was awarded \$60,000 from the Church Health

"Improving Behavioral Healthcare for the

Dr. Stephanie Ivey, associate dean for

Center of Memphis for her project

Latinx Community in Memphis."

research of the Herff College of Engineering and professor in the Department of Civil Engineering, was awarded \$44,500 from the Women's Foundation for a Greater Memphis for her project "Girls Experience Engineering

Dr. Charles Santo, professor in the Department of City and Regional

Town of Somerville for his project

Planning, was awarded \$38,499 from the

"Somerville Town Center Redevelopment

2020."

Plan."

*Dr. Erin Nelson*, assistant professor in the Department of Public and Nonprofit Administration, was awarded \$25,605 from United Way of Greater Memphis in collaboration with the Momentum Nonprofit Partners for her project "Mapping the Memphis Nonprofit Infrastructure." Dr. Michael Perez, assistant professor in the Department of Anthropology, was awarded \$21,890 from Templeton Religion Trust in collaboration with the

University of Notre Dame Global

Localization of Islam in Chile and

Design of Experiments 2019."

sulfate bone graft materials."

Dr. Manohar Aggarwal, instructor in

Mathematical Sciences was awarded \$10,000 from the National Science

Foundation (NSF) and \$14,982 from the National Security Agency (NSA) for his project "International Conference on

Dr. Joel Bumgardner, professor in the

Department of Biomedical Engineering,

Ventures, Inc. for his project "Calcium"

was awarded 13,187 from Austin Medical

*Dr. Brian Waldron*, associate professor

in the Department of Civil Engineering,

and director for the Center for Applied

(CAESER) was awarded \$10,000 from

Environment & Conservation (TDEC) for

Earth Science and Engineering

the Tennessee Department of

his project "TDEC water portal

Argentina."

Religions Research Initiative for his project "Beyond Diaspora Islam: Transnational Network and the

maintenance." Dr. Ranganathan Gopalakrishnan, assistant professor in the Department of Mechanical Engineering, was awarded \$8,056 from the Regents of the University of Minnesota for his project "Fabrication of ultrasonic aerosol generators." *Dr. Cody Havard*, associate professor in the Department of Sports and Leisure Commerce, was awarded \$5000 from the North American Society for Sport Management (NASSM) for his project "Comics, Superheroes, and Treating

others with Compassion: A Service

Youth and Teach about Rivalry and

Group Member Behavior."

Learning Project to Reach Community

Dr. Emerson Keith Bowers, assistant

"Parental Investment in Relation to Mate

professor in Biological Sciences, was awarded \$1,046 from the Tennessee Ornithological Society for his project

Quality: An Experimental Test."

\* Data is reported on the 18th of each month. Any awards finalized after the 18th of each month will be reported in the following month's report.

over time. Significant to both biology and agriculture, this work supports the hypothesized role that interactions with plant chemical defenses play in driving beetle diversification. McKenna and Shin were coauthors on the paper. Read the article here.

have partnered to create a program designed to give enterprising PhDs the companies.

developed both in Memphis and across The Patents2Products: Deep Science (P2P Fellows) program will provide salary participants for two years, funds for initial

deep science patents, or novel innovations

that are the result of academic research

and that also have potential for

The University of Memphis and Epicenter

**University of Memphis and** 

**Epicenter Memphis** 

To spur creation of deep-

University patents

**Collaborate to Recruit** 

Post-Docs to Memphis

science startups around existing

commercial purpose. The P2P Fellows will also have access to entrepreneurial curricula and resources throughout the regional innovation ecosystem and will be provided office space in either the UMRF Research Park or campus facility, as requested. The program will begin fall For more information on this collaboration, read full press release here. For interested

**New Post-Doc Position in** AI for Logistics Green Mountain Technology

The FedEx Institute of Technology in

Technologies has launched a new post-

doc position in Al and machine learning. The position, fully funded for two years, will leverage GMT's datasets to identify

partnership with Green Mountain

## trends in the logistics industry and improve the predictive capabilities of logistics networks. More information on this position available here.

The Food and Agriculture Summit, Davos on the Delta, was held in Memphis May 13. UofM co-sponsored this prestigious event alongside partners such as Indigo Ag, EY and Tennessee Department of Agriculture. Research Cluster faculty gathered with 300 intellectuals, experts and investors as Memphis was placed at

the center of conversations about the

In his opening remarks, Tennessee Governor Bill Lee highlighted the importance of the agricultural sector in our state economy and the University's

Research Cluster as evidence of the local

future of our global food system.

issue of Nature **Plants** 

Dr. Jennifer Mandel, assistant professor in Bioinformatics, published a News and View Commentary in the forthcoming issue

The article discussed the findings of the recent publication "Origin of angiosperms and the puzzle of the Jurassic gap" by Li

et al. Dr. Mandel's commentary can be

of Nature Plants.

found at this link.

Yuan Deng

The FedEx Institute of Technology's Data Science Research Cluster announced their recently funded projects. The Institute is pleased to welcome the following PI researchers to the Data Science Research Community:

Data Reduction for Big Data, PI: Dr. Lin-

machine learning in lung cancer patients,

Development of Fully Automated Software Systems for Large Data Acquisition and

Real Time Data Analysis, Pl: Dr. Thang

Integrating firm and event data from structured and unstructured data sources,

Predicting short term mortality with

PI: Dr. Ali Mahdavi Adeli

PI: Dr. Xinhua Yu

PI: Dr. Chen Zhang

Jamein P. Cunningham Poverty Prediction Using Deep Learning, Social Network Analysis, Education and Ethnicity – The case of City of Memphis,

clustering with multi-dimensional vectors, Pl: Dr. Hongmei Zhang Applying a systems medicine approach to epidemiologic research and public health, Pl: Dr. Fawaz Mzayek For further information on the research cluster, contact co-leaders Dr. David

Modeling of stochastic physical processes

by analyzing collision time distributions, Pl: Dr. Kanganathan Gopalakrishnan

Preliminary study of a novel unbiased

machine-learning approach, hybrid

June 13 | 8 AM - 4:30 PM Room 225 Register at bit.ly/datafocusedwkshp

WORKSHOP

Researchers can also receive supervision and direct services of necropsy and histopathological evaluation of tissues. Dr. Read specializes in gross and microscopic evaluation of animals and tissues from experimental studies, with a vast knowledge in rodent pathology, genetically engineered rodents, animal models of human disease and toxicological pathology. For more information on Read and services offered, email rwread@memphis.edu or call 901.678.5159.

TRAINING FROM

**BACK OF THE ROOM** 

**Tech Transfer:** Patent No. 10,243,346 Issued: March 26, 2019 Title: Apparatus for Mitigation of Adverse Effects of Geomagnetically Induced **Currents on Transformers** Inventor: Dr. Mohd Hasan Ali **Abstract**: An apparatus for mitigating GIC (geomagnetically induced current) effects through a fuzzy logic controlled variable resistor. Under GIC conditions (or any unbalanced fault current condition), the GIC or unbalanced fault current flows through the neutral of a power transformer. It is detected by the fuzzy logic controller, which sends a signal to a switch to open. The resistor is in the circuit and impedes the flow of current through the neutral, thereby protecting the transformer from getting overheated.

**UofM Research + Innovation Magazine** Launched Read full publication below. THE UNIVERSITY OF MEMPHIS.

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For more information on UofM technologies available for commercialization, visit the tech transfer website or contact Dr. Hai Trieu hhtrieu@memphis.edu.

Memphis Game Developers Meetup Jun 12 | 6–8 PM | FIT 225 <u>Data Focused</u> Jun 13 | 8 AM – 5 PM | FIT 225 MemPASS / Power BI Meetup Jun 13 | 5:30-8:30 PM | FIT 226

Memphis Python User Group Jun 17 | 6:30–8:30 PM | FIT 226

MemDevOps Meetup Jun 19 | 1:30–4:30 PM | FIT 226

Memphis PHP User Group Jun 25 | 6:30–8 PM | FIT 225

YOUR WATER, YOUR RESEARCH

CAESER

Training from the Back of the Room Jun 18-19 | 8 AM – 5 PM | FIT 225

TRAINING Data Focused Jun 13 | 8 AM - 5 PM | FIT 225 <u>Training from the Back of the Room</u>

**PUBLIC WATER MEETING** 

TUESDAY, JUNE 11 | 5:30-7 F Hollywood Community Center 1560 N. Hollywo

Memphis, TN 38108



THE UNIVERSITY OF MEMPHIS.

HIRING

**POST-DOCS:** 

**BREAK YOUR PHD** 

**OUT OF THE LAB** 

The University of Memphis is

become industry pioneers by

shifting the innovation paradigm with a new program that enables

deep science post-doc fellows to

opportunity to turn intellectual property the United States into local startup **Entrepreneur Post-Doc Fellowships** and benefits to six postdoctoral startup costs and access to the researchers and labs where the University intellectual property was developed. The program is focused on commercializing

candidates, click the image below to be directed to the P2P website. PATENTS 2 PRODUCTS DEEP SCIENCE ENTREPRENEUR POST-DOC FELLOWSHIPS

**Governor Bill Lee Notes UofM's Research Cluster** 

Highlights local Agtech momentum at

Davos on the Delta Summit

Agtech momentum in Memphis. For more information visit their Davos on the Delta website. **Angiosperm Evolution:** Jurassic Leap for Flowering UofM Researcher in

**Research Awards Announced** Data Science Research Cluster

Explainable Inference Methods for Relational Data, PI: Dr. Deepak Venugopal Evolution of Civil Rights Enforcement and Economic Prosperity of Minorities, PI: Dr.

Kemme <u>dmkemme@memphis.edu</u>, and/or Dr. Vasile Rus vrus@memphis.edu.

**Pathologist offers Consultation Services** Giving back to the Research Community

Dr. Robert Read, research veterinary

University of Memphis and in the Mid-

South. The services offered will include

publication and grant support, training in necropsy and histological technique.

and services to researchers at the

pathologist, is now offering consultations

**UofM Research Veterinary** 

June 18-19 | 8 AM - 5 PM FedEx Institute of Technology, Room 225 **PATENT SPOTLIGHT** 

CALENDAR

# WordPress Meetup Jun 6 | 6–9 PM | FIT 225 <u>DevSecOps</u> Jun 10-11 | 8 AM – 5 PM | FIT 225 Memphis Web Workers User Group Jun 11 | 6–8 PM | FIT 226

<u>DevMemphis Meetup</u> Jun 4 | 6–7:30 PM | FIT 225

Machine Learning/Data Sciences/R Jun 4 | 7–8 PM | FIT 226

Jun 18-19 | 8 AM - 5 PM | FIT 225

» Funds for initial startup costs » And more...

# **Newsletter?** Contact Us Today We welcome the opportunity to highlight the research infrastructure and innovation capabilities at the University of Memphis.

Email major award notifications,

conferences held at the UofM, honors,

grants, initiatives, etc., for inclusion in an

upcoming issue of the newsletter. We look

publications, research impact stories,

forward to sharing the world-class accomplishments taking place at the

University of Memphis.

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