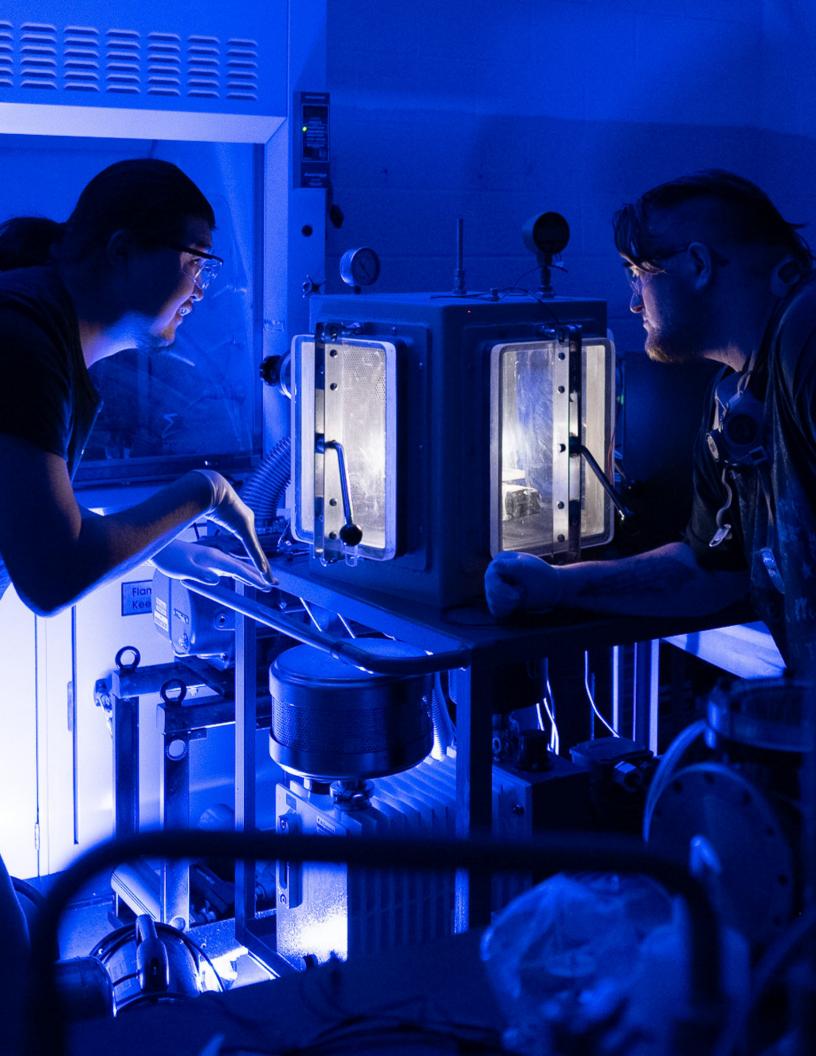THE UNIVERSITY OF
MEMPHIS®

2024

RESEARCH
CELEBRATION

Highlighting research achievements; Honoring first-time
PIs and new PI Millionaires at the University of Memphis,
a Tennessee flagship Carnegie R1 research institution.

February 22, 2024 | 3:30 PM
FedEx Institute of Technology
The Zone & Lobby

AGENDA

Opening Comments
Bill Hardgrave
President
University of Memphis

Presentation of Awards
Jasbir Dhaliwal
Executive Vice President
Division of Research & Innovation

Class of 2024 PI Millionaires

First-time Principal Investigators

Book Publications

Co-Investigators

Communities of Research Scholars

Special Recognition

Principal Investigators

Top Faculty by Scopus H-Index

Google Scholar Highly Cited Authors

In Memoriam

CLASS OF 2024
PI MILLIONAIRES

In FY23, these University of Memphis researchers secured over $1M in funding for their projects, elevating them to the esteemed category of "PI millionaires." These individuals add to a distinguished group of 134 colleagues at UofM who have attained this prestigious designation. This milestone not only reflects the university's commitment to advancing groundbreaking research but also underscores the caliber of talent and innovation present within our academic community.

#135
Mohd Hasan Ali
Department of Electrical and Computer Engineering

#139
Ashish Joshi
School of Public Health

#144
Christos Papadopoulos
Department of Computer Science

#136
Daniel Foti
Department of Mechanical Engineering

#140
Kurt Kraiger
Department of Management

#145
Brandt Pence
College of Health Sciences

#137
Thomas Goebel
Center for Earthquake Research and Information

#141
Daniel Larsen
Department of Earth Sciences

#146
Aaryani Sajja
Department of Biomedical Engineering

#138
Xiaohua Huang
Department of Chemistry

#142
Mark LeDoux
Department of Psychology

#147
Karen Weddle-West
Student Academic Success

#143
Jennifer Mandel
Department of Biological Sciences

FY23 FIRST-TIME
PRINCIPAL INVESTIGATORS

Center for Research in Educational Policy
Cynthia Muzzi

College of Education
Nichelle Robinson

College of Health Sciences
Jamie Brunsdon

Counseling, Educational Psychology, & Research
Michelle Brasfield
Melanie Burgess
Patrick Murphy

Department of Anthropology
Lindsey Feldman

Department of Biological Sciences
Leigh Boardman

Department of Chemistry
Qianyi Cheng

Department of Computer Science
Xiaofei Zhang

Department of Earth Sciences
William Jackson
Gary Stinchcomb

Department of Economics
Jose Lopez

Department of Electrical and Computer Engineering
Mohammadreza Davoodi

Department of Finance, Insurance and Real Estate
Velma Zahirovic-Herbert

Department of History
Suzanne Onstine

Department of Leadership
Daniel Collier

Department of Management
Kristen Jones
Kurt Kraiger
Caitlin Porter

Department of Management Information Systems
Mark Gillenson
Sandra Richardson

Department of Marketing & Supply Chain Management
Subhash Jha

Department of Psychology
Alexandrea Golden

Department of World Languages and Literatures
William Thompson

Graduate Programs
Brian Meredith

Health Center
Linh Luu

Instruction and Curriculum Leadership
Anna Falkner
Laurie MacGillivray

International Programs
Rebecca Laumann

Loewenberg College of Nursing
Viktoriya Pleshkan

Public and Nonprofit Administration
Sharon Wrobel

School of Accountancy
Philip Kunz

School of Public Health
Ashish Joshi

BOOK PUBLICATIONS

The Division of Research & Innovation tracks publications by our research faculty on an ongoing basis. To view the books published since the last research celebration, follow the link below. Book publications can be sent to **researchdev@memphis.edu**. To view, visit **bit.ly/UofMBooks**.

Congratulations to all of our authors!

RESEARCH ECOSYSTEM:
CO-INVESTIGATORS

Madison Austin
Rajesh Balasubramanian
Edina Bene
Jonathan Bennett
Christine Bertz
Mariquita Boone
Dale Bowman
Emilie Bowman
Mary Earheart Brown
Charles Camp
Tammy Combs
Amy Cook
Tonya Cooper
Erin Cunningham
Joseph Delaney
Davia Downey
Alyssa Dunn
Maria Susana Echeverri
Cynthia Edwards
Yuan Gao
Ebenezer George
Angela Graves
Luz Gray
Stephanie Haddad
Mark Hendricks
Arleen Hill
Kantaylieniere Hill-Clarke
Thang Hoang
Betrophia Holt
Tara Hunter

Eddie Jacobs
Brian Janz
Chunrong Jia
Anthony Kitsinger
Daniel Kohn
Katherine Lambert-Pennington
Sohye Lee
Chi Li
Martin Lipinski
Kriangsiri Malasri
Robert McKinney
Lavitta Means
Kelly Miller
Reza Molaei
Skkye Moreno
Xichen Mou
Christian Mueller
Ernest Nichols
Vikki Nolan
Kelly O'Neil
Jacquelyn Pence
Chidambaram Ramanathan
Aaron Robinson
Tracy Robinson
Firouzeh Sabri
Scott Schoefernacker
Simon Sherman
Hannah Smith
Michelle Stockton
Mark Sunderman

Carrie Sutter
Andrew Tawfik
Meghan Taylor
Mikhelle Taylor
Gina Tillis
Roberto Triggiani
Rodrigo Villalpando Vizcaino
Yongmei Wang
Kenneth Ward
Lydia Warren
Jerry Watson
Janet Wiens
Leah Windsor
Chaquieta Williamson
Mary Yaeger
Yong Yang
Melanie Young

RECOGNITION OF
RESEARCH SUPPORT STAFF

The Division of Research & Innovation recognizes that the success of faculty is, in part, thanks to the many pre-award coordinators, research support staff and individuals across campus who help to ensure the success of the research enterprise at the University of Memphis.

FY23 COMMUNITIES OF
RESEARCH SCHOLARS

Established in the fall of 2018, Communities of Research Scholars (CoRS) was created to cultivate interdisciplinary discourse and nurture the growth of collaborative research across the UofM. Each community is comprised of faculty representing multiple disciplines, academic units, perspectives and research approaches with a shared interest in exploring a common research theme or topic. The FY23 funded CoRS projects and their principal investigators are listed below. To view all, visit **bit.ly/CoRS**.

Yuan Gao, *Department of Mechanical Engineering*
"Aerogel-Based Acoustic Tumor-on-a-Chip Model for Cancer Metastasis Research"

Reza Molaei, *Department of Mechanical Engineering*
"An Interdisciplinary Research to Incorporate Machine Learning Techniques in Mechanical and Fatigue Life Predictions of Additive Manufactured Materials"

Bernadette Ombayo,
School of Social Work
"Campus Dating Violence Collaborative"

Amanda Hasselle,
Department of Psychology
"Creating a Culturally Adapted Social-Emotional Learning Curriculum: DBT STEPS-A with African American Adolescents"

Yafang Li, *Department of Business Information Technology*
"Designing A Culturally Tailored Diet Management Application for Type 2 Diabetic Patients"

Chunrong Jia,
School of Public Health
"Environmental Health, Climate, Environmental, and Energy Justice Research (CEEJR)"

Amir Hadadzadeh, *Department of Mechanical Engineering*
"Establishing an Interdisciplinary Research Collaboration in the Fields of Machine Learning and Additive Manufacturing"

Benjamin Keller, *Department of Physics and Materials Science*
"Exploring Synergies in Astrophysical and Engineering Simulation"

Reba Umberger,
Loewenberg College of Nursing
"Exploring the Role of Social Determinants of Health on Sepsis 90-Day Sepsis Readmissions"

Alexander Headley, *Department of Mechanical Engineering*
"Identifying Opportunities for Renewables and Energy Storage in the Mid-South"

Faruk Ahmed, *Department of Engineering Technology*
"Identifying the Potential Determinants of Death among Hypertension Patients while Staying at the Hospital using Publicly Available Clinical Datasets"

Ana Doblas, *Department of Electrical & Computer Engineering*
"Investigation of a Multiplexed Wearable Sensor to Identify Engineering Undergraduate Students at Risk in Their Major by Means of Artificial Intelligence"

Xiaolei Huang, *Department of Computer Science*
"Metadata-aware Imbalance Modeling for Clinical Outcome Assessment"

Crystal White,
Counseling, Educational Psychology & Research
"Passport to Teach and Learn: UofM Interdisciplinary Training for Graduate Teaching Assistants and New Non-Tenured Faculty"

Sarah Leat, *School of Social Work*
"Research on Intimate Partner Violence Collaborative"

Leah Windsor,
Institute for Intelligent Systems
"Regional Strategy for Regenerative Agriculture and Innovation"

Maria Jaramillo,
Department of Marketing and Supply Chain Management;
Subhash Jha,
Department of Marketing and Supply Chain Management
"Supporting Data Collection Process, Evaluating Communication Strategies to Reduce Distracted Driving Among Adolescents"

Nicholas Simon,
Department of Psychology;
Miriam van Mersbergen,
School of Communication Sciences and Disorders
"The Annual Memphis Neuroscience Symposium"

Alistar Windsor,
Institute for Intelligent Systems
"The Language of Science: Implications for Teaching and Learning"

William Hunter, *Instruction and Curriculum Leadership*
"The Tiger Blueprint: Building Extended Learning Programs through the Cypher Code Collective"
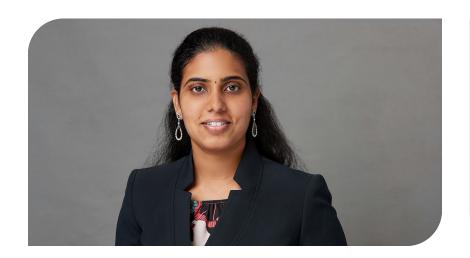
Marika Snider,
Department of Architecture
"Virtual Reality Working Group"

SPECIAL **RECOGNITION**

Aaryani
Tipirneni-Sajja

Department of
Biomedical Engineering

NSF Early Career Award

Dr. Aaryani Tipirneni-Sajja, assistant professor in the Department of Biomedical Engineering, was recently awarded a five-year Faculty Early Career Development Program (CAREER) grant from the National Science Foundation (NSF) for $730,629 for the project entitled "Open-Access, Real-Time High-Throughput Metabolomics for High-Field and Benchtop NMR for Biological Inquiry."

Sajja is a biomedical scientist with expertise in developing quantitative magnetic resonance imaging (MRI) and spectroscopy (NMR) techniques that will noninvasively identify disease biomarkers, enable early diagnosis, and guide response to therapy. She has published 23 journal articles with 1400+ citations, over 45 conference abstracts and one book chapter in this field. Sajja has served as a Principal Investigator on an NIH Trailblazer Award and internal university grants and a co-investigator on some federal and external institutional grants.

In addition to excelling as an independent research investigator, she received the 2022 Outstanding Faculty Teaching Award from the College of Engineering in recognition of her dedicated teaching efforts and serves as a K-12 Outreach Chair for the Society of Women Engineers, Memphis.

Carl D. **Herickhoff**

Department of Biomedical Engineering

NSF Early Career Award

Dr. Carl Herickhoff, assistant professor in the Department of Biomedical Engineering, received a $593,248 Faculty Early Career Development Program (CAREER Award) grant from the National Science Foundation (NSF) for his proposal "Super-Resolution 3D Ultrasound Imaging of Brain Activity."

The research advancements in Herickhoff's CAREER proposal will create a new volumetric neuroimaging paradigm to be widely disseminated among the neuroscience research community. This innovative platform will include novel transducer hardware and signal-processing algorithms—with drastically reduced channel count and associated system cost—to help elucidate neurobiological processes and neuropathologist, leading to the accelerated development of effective interventions and therapies.

The proposal's integrated educational and outreach plan is focused on sharing specific knowledge and broadly increasing interest and engagement with imaging technology. The planned program includes three educational activities, with participants ranging from graduate and professional levels to middle school students. The activities include developing and refining courses and curriculum paths in imaging and ultrasound research, creating a seminar series to disseminate ultrasound neuroimaging methods and learnings and facilitating new K-12 Engineering programs and interactive outreach workshops.

FY 2023
PRINCIPAL INVESTIGATORS

James Adelman
Manohar Aggarwal
Mohd Ali
Thouraya Al-Nasser
Celia Anderson
David Arellano
Madhusudhanan
    Balasubramanian
Bonny Banerjee
Debra Bartelli
Kevin Berisso
Richard Bloomer
Leigh Boardman*
Emerson Keith Bowers
Gary Bowlin
Michelle Brasfield*
Shawn Brown
Jamie Brunsdon*
Joel Bumgardner
Melanie Burgess*
Dorian Burnette
Burt Burraston
Laura Casey
Qianyi Cheng*
Minhae Cho
Eunseo Choi
Kensha Clark
Daniel Collier*
Amy de Jongh Curry
Bernie Daigle

Mohammadreza Davoodi*
Dipankar Dasgupta
Russell Deaton
Elena Delavega
Nathan DeYonker
Jasbir Dhaliwal
Ana Doblas
Randolph Dupont
Susan Elswick
Gary Emmert
Anna Falkner*
Ali Fatemi
Lindsey Feldman*
Daniel Foti
Demetria Frank
Charles Garner
William Gibbons
Mark Gillenson*
Mike Gkolias
Wendy Griswold
Thomas Goebel
Alexandrea Golden*
Ranganathan Gopalakrishnan
Amir Hadadzadeh
Michael Hagge
Alfred Hall
Josef Hanson
Melvyn Harding
Kelsey Harrison
Alexander Headley

Carl Herickhoff
Melissa Hirschi
Kathryn Howell
Xiangen Hu
Xiaohua Huang
Xiaolei Huang
William Hunter
Amaia Iratzoki-Greenfield
Richard Irwin
Stephanie Ivey
William Jackson*
Wesley James
Farhad Jazaei
Jessica Jennings
Subhash Jha*
Yu Jiang
Kristen Jones*
Asish Joshi*
Carolyn Kaldon
Satish Kedia
Kurt Kraiger*
Santosh Kumar
Philip Kunz*
Christodoulos Kyriakopoulos
Daniel Larsen
Irena Lasiecka
Rebecca Laumann*
Justin Lawhead
Mark LeDoux
Marian Levy

Weizi Li
Huigang Liang
Jose Lopez**
Linh Luu*
Wei Lyu
Laurie MacGillivray**
Jennifer Mandel
Jeffrey Marchetta
James McCutcheon
Timothy McCuddy
Meghan McDevitt-Murphy
Duane McKenna
Claudio Meier
Courtnee Melton-Fant
Brian Meredith**
Sabyasachee Mishra
Francisco Muller-Sanchez
James Murphy
Patrick Murphy**
Cynthia Muzzi**
Susan Neely-Barnes
Erin Nelson
David Kimbrough Oller
Suzanne Onstine**
Napoleon Overton
Radesh Palakurthi
Christos Papadopoulos
Maxime Paquette
Ryan Parish
Brandt Pence

Shahram Pezeshk
Latrice Pichon
Viktoriya Pleshkan**
Caitlin Porter**
Emily Puckett
Kathryn Ramsey
Meredith Ray
Sandra Richardson**
Nichelle Robinson**
Amanda Rockinson-Szapkiw
Michael Rudd
Vasile Rus
John Sabatini
Aaryani Sajja
Charles Santo
Eraina Schauss
Chrisann Schiro-Geist
Michael Schmidt
Paul Simone
Irma Singarella
Robert Smalley
Matthew Smeltzer
Gary Stinchcomb**
Thomas Sutter
William Thompson**
Abu Mohammed Naser Titu
Jennifer Turchi
Marie van der Merwe
Deepak Venugopal
Brian Waldron

Lan Wang
Gregory Washington
Thomas Watson
Karen Weddle-West
James Whelan
Jeremy Whittaker
Mitchell Withers
Myounggyu Won
Sharon Wrobel**
Kan Yang
Mohammed Yeasin
Xinhua Yu
Velma Zahirovic-Herbert**
Stephen Zanskas
Hongmei Zhang
Xiaofei Zhang**
Yufeng Zhang
Bentuo Zheng
Todd Zoblotsky

* Denotes First Time Pls

Bolded names are
FY22 PI Millionaires

TOP FACULTY BY
SCOPUS H-INDEX

FACULTY MEMBER	SCOPUS H-INDEX	DEPARTMENT
Bowlin, Gary	56	*Biomedical Engineering*
Fatemi, Ali	56	*Mechanical Engineering*
Sutter, Thomas	54	*Biological Sciences*
Lasiecka, Irena	52	*Mathematical Sciences*
Murphy, James	48	*Psychology*
Rudd, David	48	*Psychology*
Huang, Xiaohua	46	*Chemistry*
Bollobas, Bela	45	*Mathematical Sciences*
Dasgupta, Dipankar	42	*Computer Science*
Mishra, Sanjay	42	*Civil Engineering*
Triggiani, Roberto	42	*Mathematical Sciences*
Bumgardner, Joel	40	*Biomedical Engineering*
Gallagher, Shaun	40	*Philosophy*
Oller, Kimbrough	40	*School of Communication Sciences and Disorders*
Skalli, Omar	40	*Biological Sciences*
Andrasik, Frank	38	*Psychology*
Langston, Charles	38	*Center for Earthquake Research and Information*
Liang, Huigang	37	*Management Information Systems*
Bloomer, Richard	36	*College of Health Sciences*
Yang, Kan	36	*Computer Science*

About Scopus H-Index

The University of Memphis subscribes to Scopus, a database of citations and abstracts. An H-index of 40 means that a scientist has published 40 papers that each has at least 40 citations.

GOOGLE SCHOLAR
HIGHLY CITED AUTHORS

FACULTY MEMBER	CITATION COUNT	DEPARTMENT
Gallagher, Shaun	43,695	*Philosophy*
Huang, Xiaohua	37,088	*Chemistry*
Gurney, James	30,708	*School of Public Health*
Bowlin, Gary	23,677	*Biomedical Engineering*
Dasgupta, Dipankar	21,434	*Computer Science*
Oller, D. Kimbrough	21,408	*School of Communication Sciences and Disorders*
Fatemi, Ali	20,856	*Mechanical Engineering*
Lasiecka, Irena	20,617	*Mathematical Sciences*
Rudd, M. David	18,570	*Psychology*
Liang, Huigang	17,105	*Management Information Systems*
Andrasik, Frank	15,862	*Psychology*
Kraiger, Kurt	15,798	*Management*
Skalli, Omar	12,738	*Biological Sciences*
Murphy, James	12,735	*Psychology*
Sutter, Thomas	12,474	*Biological Sciences*
Rezaee, Zabihollah	12,344	*Crews School of Accountancy*
Langston, Charles	11,536	*Center for Earthquake Research and Information*
Wang, Lan	10,896	*Computer Science*
Kumar, Santosh	10,489	*Computer Science*
Pence, Brandt	9989	*College of Health Sciences*

About Google Scholar

*In order to increase the visibility of researchers at the University of Memphis, the Division of Research & Innovation is encouraging all faculty to update their Google Scholar profiles. If you need assistance, email **researchdev@memphis.edu**.*

IN MEMORIAM

In the last year, the University community lost great contributors to our research growth. We thank them for their dedication to the University of Memphis.

Stanley "Stan" Franklin

August 14, 1931 – January 23, 2023

Lily Afshar

March 9, 1960 – October 24, 2023

Richard "Dick" Irwin

July 25, 1957 – December 7, 2023

" *The time will come when diligent research over long periods will bring to light things which now lie hidden. And so this knowledge will be unfolded only through long successive ages.*

There will come a time when our descendants will be amazed that we did not know things that are so plain to them... Many discoveries are reserved for ages still to come."

— Seneca, Natural Questions