



Second University System of Maryland
Postdoctoral Research Symposium

09 · 26 · 25

Adele H. Stamp Student Union

**FLASH
TALKS**

**POSTER
SESSIONS**

**LUNCH &
WORKSHOPS**



UNIVERSITY SYSTEM
of MARYLAND

USM Postdoctoral Research Symposium

September 26, 2025 | Stamp Student Union | 9:00 AM - 4:00 PM

Full Program

9:00 AM Registration and Breakfast

Opening Remarks

9:15 AM **Blessing Enekwe**, Program Director, Office of Postdoctoral Affairs (OPA)
Alison Wrynn, Senior Vice Chancellor for Academic and Student Affairs
Stephen Roth, Associate Provost and Dean of The Graduate School

Keynote Speech

9:30 AM Speaker: **Tania Mitchell**, Associate Provost for Community Engagement,
University of Maryland, College Park

Session 1 (Two Concurrent Workshops)

10:20 AM **Workshop 1: Restorative Rest Practices (Charles Carroll Room A)**
Workshop 2: Science Communication & Advocacy (Charles Carroll Room B)

11:30 AM Flash Talks I

12:10 PM Flash Talks II

12:45 PM Lunch | Announcement of Mentor of the Year Award Winners & Award Nominees

1:30 PM Session 2 (Two Concurrent Workshops)

Workshop 1: Generative AI: Things one needs to know (Charles Carroll Room A)
Workshop 2: Mentoring Up (Charles Carroll Room B)

2:15 PM Poster Session (Colony Ballroom)

3:30 PM Ice Cream Social and Closing Remarks (Colony Ballroom)

Flash Talk I

Kyeongwon Lee kwlee@umd.edu

University of Maryland, College Park, Department of Mathematics, **Understanding Uncertainty in Neural Networks: A Statistical Perspective**

Anam Anjum aanjum@som.umaryland.edu

University of Maryland, Baltimore, Neurosurgery, **Enhancing Schwann Cell Protection Through Stem Cell Treatment Via Modulation of NAMPT Activity and Sarm1 Activation, Promoting Peripheral Nerve Regeneration**

Yogeshwari Sanjayrao Ambekar yambekar@umd.edu

University of Maryland, College Park, Fischell Department of Bioengineering, **Mapping Embryo Mechanics in Real Time: Towards Precision IVF Selection**

Bello Mahmud bemah2@morgan.edu

Morgan State University, Civil and Environmental Engineering Department, **Sustainable and Resilient Life-Cycle Management of Infrastructure Assets**

Blessing Sasanya blessing.sasanya@morgan.edu

Morgan State University, Civil and Environmental Engineering, **Spatiotemporal assessment of water footprints using process-based SWAT and ensembled machine learning models**

Patrick Keating pkeating@umd.edu

University of Maryland, College Park, Institute for Bioscience & Biotechnology Research, **Quantifying aluminum adjuvant adsorption capacity through lipid adsorption with solid-state NMR**

Amina Yusuf amina.yusuf@morgan.edu

Morgan State University, Chemistry, **Plant-Based Therapeutic Candidates for Snakebite Envenomation: From Traditional Knowledge to Molecular Modeling**

Sarfarz Ejazi saejazi@umd.edu

University of Maryland, College Park, Fischell Department of Bioengineering, **Fibroblasts regulate lymphatic barrier functions in a tissue-dependent manner**

Flash Talk II

Zsolt Iklodi iklodi@umd.edu

University of Maryland, College Park, Department of Mechanical Engineering, **Numerical analysis of non-smooth effects in machine tool vibrations**

Ishita Roy Chowdhury iroychow@umd.edu

University of Maryland, College Park, Department of Veterinary Medicine, **Beyond Antibodies: Hemagglutinin-Specific T Cell Responses Against Avian Influenza Viruses in Poultry**

Assi Sobari assafsu@umbc.edu

University of Maryland, Baltimore County, Erickson School of Aging Studies, **Bringing Generations Together through Dance**

Anga Hackula ahackula@umd.edu

University of Maryland, College Park, Department of Environmental Science & Technology

Justin Garrish jgarris2@umbc.edu

University of Maryland, Baltimore County, Mathematics and Statistics, **Reconstructing insulin secretion rate from oral glucose tolerance test**

FNU Shipra fnu.shipra@morgan.edu

Morgan State University, Centre for Research and Education in Microelectronics, **Lattice Matched Semi-Metal Substrates for High Figure Of Merit Vertical AlGaIn Power Electronic Devices**

Zehidul Hussain zehidul@umd.edu

University of Maryland, College Park, Department of Environmental Science and Technology, **The Role of Urbanization and Disease: Dynamics at the Wildlife–Human Interaction**

Xin Zhou xin.zhou@morgan.edu

Morgan State University, Civil & Environmental Engineering, **From Map Making to Story Telling: Connecting Environmental and Human-Induced Changes to Urban Flooding**

Posters: Session A

Rayan Bahrami rayan@umd.edu

University of Maryland, College Park Post-Doctoral Associate **Toward Autonomy and Resilience in Autonomous Systems: Applications to Multi-Robot Systems and Medical Care**

Joni Brown jbrown97@umd.edu

University of Maryland, College Park Department of Family Science **Patterns of Parental Sexual Socialization and Contraceptive Use in Young Black Women and Adolescent Girls**

Oya Kawashima okawashi@umd.edu

University of Maryland, College Park Department of Geology **In-situ Mass Spectrometers: development of spaceborne mass spectrometers for NASA and JAXA's missions**

Hossain Mohiuddin hossain.mohiuddin@morgan.edu

Morgan State University Transportation & Urban Infrastructure Studies **Joint Modeling of Current and Future Battery Electric Vehicle Adoption and Public Charging Frequency: A Study in the Baltimore Region**

Seok-Jun Kang seokjun.kang@morgan.edu

Morgan State University Department of Civil and Environmental Engineering / Morgan State University **Quantitative Landslide Risk Assessment with Simplified Slope Geometries Using Finite Difference Modeling and Strength Reduction Method**

Comfort Ngwu comfort.ngwu@morgan.edu

Morgan State University Chemistry **Quantum and Experimental Studies on the Application of Eco-friendly Nanomaterials as Adsorbents and Photocatalysts for the Removal of Emerging Contaminants**

Afsaneh Bahrami Abahrami@som.umaryland.edu

University of Maryland, Baltimore Department of Epidemiology and Public health **Molecular Subtypes of Breast Cancer and Leisure Time Physical Activity**

Wichuta Khosinklang wkhosink@umd.edu

University of Maryland, College Park Department of Animal and Avian Sciences **Curcumin- and capsaicin-loaded nanoemulsion improves jejunal morphology and mitigates oxidative stress and inflammation in slow-growing Korat chickens under high stocking density**

Md Mamunul Haque mhaque@umaryland.edu

University of Maryland, Baltimore Neural and Pain Sciences **Sex-specific metabolic differences drive post-surgical pain**

Posters: Session B

Shrestha Mathur smathur3@umd.edu

University of Maryland, College Park CBMG Characterization of MUC1 Expression and Its Immunoregulatory Role During the Antiviral Response in Human Airway Epithelial Cultures

Boonyarit Kamkrathok boonyari@umd.edu

University of Maryland, College Park Department of Animal and Avian Sciences Role of thyroid hormones in modulating the reproductive axis during peak egg production in turkey hens

Ruixue Li ruilia21@umd.edu

University of Maryland, College Park Center for Risk and Reliability

Jennifer Janovick janovick@umd.edu

University of Maryland, College Park Joint Institute for Food Safety and Applied Nutrition Identification and quantification of the 6:2 fluorotelomer alcohol in food packaging materials using 19 F NMR

Chih Fang chfan4@morgan.edu

Morgan State University Accounting Institutional Pressures and Digital Governance: How Cybersecurity Disclosures Shape ESG Outcomes

Payal Srivastava payalsri@umd.edu

University of Maryland, College Park Fischell Department of Bioengineering Development of Targeted Photoactivable Liposomes for PDT-Based Combination Therapy in Ovarian Cancer

Kyle Tynan kyle.tynan@nist.gov

NIST IBBR/NIST Detecting dsRNA impurities in mRNA therapeutics

Yanli Chen ylchen95@umd.edu

University of Maryland, College Park VetMed TNF- α signaling is required for fungal clearance during brain infection with *Cryptococcus neoformans* via promoting the recruitment of CD4⁺ T cells and inflammatory monocytes

Peixi Chang changpxi@umd.edu

University of Maryland, College Park Department of Veterinary Medicine Isolation and characterization of ZIKV replication complex

Wright Makambi wmakambi@umd.edu

University of Maryland, College Park Institute for Bioscience and Biotechnology Research Distribution, interaction preferences, and biophysical features of the Tilapia Piscidin 4 peptide within cancer cell membranes



Leila Abar labar@som.umaryland.edu

University of Maryland, Baltimore Epidemiology **County-Level Radon Testing in Maryland:
Challenges for Comprehensive Lung Cancer Prevention Strategies**

Peter Ikhane pikhane@som.umaryland.edu

University of Maryland, Baltimore Epidemiology and Public Health **Broad Consent in Data Science
Health Research: Knowledge and Attitude of Key Stakeholders**

Breakfast & Lunch Menu



Breakfast & AM Beverages

~ Beverage Station ~
8:45AM - 12:30PM

Trio Of Fresh Juices
*Orange Juice, Apple Juice and
Cranberry Juice*

**Starbucks Coffee & Assortment of
Hot Teas**
*Regular & Decaf
Served with Honey, Lemon and
Cream*

Iced Water

~ On The Buffet ~
9:00AM - 10:00AM

Sliced Fresh Seasonal Fruit
Display

Bakery Basket
*Miniature Croissants, Danishes &
Muffins Served With: Fruit Preserves,
Honey
and Sweet Butter*

Lunch & PM Beverages

~ Beverage Station ~
12:30PM - 2:00PM

Iced Tea & Iced Water

~ On The Buffet ~
12:30PM - 2:00PM

Cumin Lime Vinaigrette Slaw
*Cabbage, Black Bean and Corn Slaw with
Roasted Pumpkin Seeds and
a Cumin Lime Vinaigrette*

Cilantro Lime Rice

Make Your Own Taco Bar
*Warm Flour Tortillas and Tortilla Chips
Chili Spiced Grilled Chicken with
Peppers and Onions
Chipotle Rubbed Flank Steak with
Peppers and Onion
Spiced Butternut Squash with Peppers and
Onions*

*House-Made Salsa, Guacamole, Shredded
Cheddar Cheese, Sour Cream, Shredded
Romaine*

~Sweets~

Mini Horchata Mousse
Mini Mexican Lime Tartlets

Acknowledgments

2025 Postdoctoral Symposium Planning Committee Members

Blessing Enekwe, Program Director, Office of Postdoctoral Affairs (Symposium Co-Chair)

Jennifer Aumiller, Director, Office of Postdoctoral Scholars, and Director of the Office of Graduate and Postdoctoral Career and Professional Development, University of Maryland School of Medicine

Spencer Benson, Graduate School Consultant, Retired UMD CMBG faculty member, Former director of UMD's Teaching and Learning Center

Sumana Bhowmick, Postdoctoral Associate, Veterinary Medicine

Kevin Bradley, Director of Graduate Professional Development, Morgan State University

Jonathan Brower, Postdoctoral Associate, Latin American and Caribbean Studies Center & The Graduate School

LaKeisha Harris, Dean, School of Graduate Studies and Research, University of Maryland Eastern Shore

Linda Macri, Director, Academic and Professional Development

Anne-Charlotte Mecklenburg, (former) Postdoctoral Associate for Academic Support

Thiago Pezzuto, (former) Graduate Assistant, Office of Postdoctoral Affairs

Meenakshi Tanwar, Postdoctoral Associate, Cell Biology & Molecular Genetics

Taj Kumari Yeruva, Postdoctoral Associate, Fischell Department of Bioengineering

Our Judges

Renee Cockerham, University of Maryland, Baltimore, Postdoc Office

Jessica A. Mong, University of Maryland, Baltimore, Pharmacology & GPILS/OPS

Mariusz Karbowski, University of Maryland, Baltimore, Biochemistry and Molecular Biology

Mary E. Warneka, University of Maryland, College Park Teaching & Learning Transformation Center

Yongrong Zhang, University of Maryland, Baltimore, Microbial Pathogenesis

Katherine Sharp, University of Maryland, College Park, Behavioral and Community Health

Dr Krishna Bista, Morgan State University, Education

Kevin Bradley, Morgan State University, School of Graduate Studies

Archana Sharma, Morgan State, School of Architecture and Planning

Samia Rab Kirchner, Morgan State University, Architecture

Uttam Gaulee, Morgan State University, Advanced Studies, Leadership and Policy

Linda Darrell, Morgan State University, Department of Doctoral Studies/DSW

Mian B. Hossain, Morgan State University, Public and Allied Health

Tina Jordan, Morgan State School of Social Work

Dr. Lujie Peng, Morgan State University, Social Work

Angela Bies, University of Maryland, College Park, Graduate School and School of Public Policy

Evelyn Cooper, University of Maryland, College Park, The Graduate School

Jason Farman, University of Maryland, College Park, The Graduate School

Stephen Roth, University of Maryland, College Park, The Graduate School



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