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# RADIOLOGY RESEARCH UPDATE *December 2025, Issue 34*

Department of Diagnostic Radiology and Nuclear Medicine

## FACULTY SPOTLIGHT



**Florence Doo, MD, MA, CIIP** is an abdominal radiologist, clinical informaticist, and physician-innovator whose research program focuses on translating imaging informatics and artificial intelligence (AI) tools into clinical care. She joined UMB in July 2023. Dr. Doo currently co-leads the AI-enabled Medical Imaging group, as faculty in the “Applied AI” division at the University of Maryland Institute for Health Computing (UM-IHC). Dr. Doo also serves as Director of Innovation in our department’s Medical Intelligent Imaging (UM2ii) Center. In these dual roles, she develops, evaluates, and implements translational AI projects that bridge research and real-world clinical care.

Dr. Doo recently completed the selective Association of Academic Radiology (AAR) Clinical Effectiveness Radiology Research Academic Fellowship (CERRAF) sponsored in part by GE Healthcare, where her work quantified the carbon and computational footprint of medical-AI workflows and proposed methods for sustainable imaging informatics.

Her current work at UMB spans several major translational efforts: at UM-IHC she leads multiple projects in translational medical AI, including: tools for predictive lung cancer screening, multimodal analysis of clinical-trial data for vascular therapy decision-making, and a collaboration with the FDA on regulatory science methods for AI-enabled medical devices.

She is co-PI on a NIH P50 pilot grant “HI-REACH,” examining environmental and operational stressors on imaging service delivery in cardiovascular care.

Her team also developed a large-language-model chatbot for scalable medical imaging data curation, which was awarded funding from

the 2024-2025 UMMC Innovation Challenge; plans are underway to extend this tool into a semi-automated agentic framework.

Dr. Doo was recently awarded the 2025-2028 NIH Clinical and Translational Science Awards (NIH CTSA) Program K12 mentored research award for “COMPASS,” which evaluates the safety of vascular imaging AI systems.

In the past two years since joining UMB, Dr. Doo has authored or co-authored more than 30 peer-reviewed publications and 16 abstracts, including in *JAMA Network Open*, *Lancet Oncology*, *Radiology*, *JACR*, and *AJR*. She has collaborated extensively with UM-based faculty, trainees, and also external national/international partners. In parallel, she has mentored over ten trainees (including medical students, residents, and fellows) from multiple institutions. Dr. Doo is deeply committed to cultivating the next generation of clinician-innovators, reflected in her recent recognition as Outstanding Mentor at the 48th Annual Medical Student Research Day at the

University of Maryland Baltimore.

Nationally, Dr. Doo serves on leadership committees within the Radiological Society of North America (RSNA), American College of Radiology (ACR), and Society for Advanced Body Imaging (SABI).

Since July 2023, Dr. Doo has delivered over 70 invited presentations and panel talks - ranging from industry-sponsored sessions, to institutional grand rounds and national society conferences, to international symposia.

Her contributions have been recognized with consecutive nominations: as a 2025 Finalist and a 2024 Semifinalist for the Minnies Most Influential Radiology Researcher, an RSNA Cum Laude Award, and American Board of Radiology (ABR) Volunteer Service Award.

Through her work, Dr. Doo aims to drive innovation in medical imaging and human-AI collaboration that is safe, trustworthy, and scalable in real-world practice.

## RESEARCH DAY

**Thomas M. Scalea, MD, FACS, FCCM** delivered the John M. Dennis Memorial Lecture on Research Day, speaking about "Leadership in a Complex Environment: Thoughts after 40 years in the Trenches."

The Bruce Line Prize was awarded to **Wengen Chen,**

**BM, PhD, MSc** (below left, with Dr. Tarek Hanna).



The Mezrich Prize was awarded to **Peiying Liu, PhD** (below left).



Congratulations, Drs. Chen and Liu!

## GRANTS

**Miroslaw Janowski, MD, PhD**, received a \$1,022,134 Research Program Infrastructure grant from the NIH for a PET Insert Si 198.

**Jiachen Zhuo, PhD** received a \$515,170 subcontract from Morgan State University as part of a five-year NIH grant to study "RCMI: Neural and Immune Correlates of Painful

Chemotherapy-Induced Neuropathy- Feasibility and Preliminary Efficacy of a Motor Cortex Non-Invasive Brain Stimulation Intervention"

**Sui-Seng Tee, PhD** received a two-year MSCRF-TEDCO grant with a total budget of \$ 345,000 to study: "Peripheral Lipid Metabolism as a Modulator of Synucleinopathies."

**Linda Chang, MD** will receive \$328,000 over five years as a subcontract from University of Nebraska for an R01 grant entitled "Targeted Lipid Nanoparticles for Gene Therapeutics Delivery Approach to Eradicating HIV Reservoirs."

**Thomas Ernst, PhD** will receive \$139,000 over four years as a subcontract from JHU for an R01 grant entitled "Edited Magnetic Resonance Spectroscopy of the Pediatric Brain."

## FACULTY SENATE

**Miroslaw Janowski, MD, PhD** and **Recai Aktay, MD, MPH** have been elected to the Faculty Senate this year for another three-year term. Dr. Janowski leads the research subcommittee on Streamlining Research Administrative Processes, and Dr. Aktay serves on the Education Committee.

Both will serve as the sole representatives of the School of Medicine to the Council of the University System Faculty

(CUSF) for the coming 3-year term. The CUSF brings together representatives from all 12 universities and regional centers that comprise the University System of Maryland.

Additionally, Dr. Janowski serves as Co-Chair of the CUSF Research Committee and was recently elected Secretary of the CUSF Executive Committee. This five-member committee represents over 16,000 faculty members across the USM, provides advisory support to Chancellor Jay Perman, and reports to the Board of Regents.

## NEW RESEARCH ADMINISTRATION STAFF



**Smriti Aryal** has rejoined the department as a Contracts and Grants Specialist, where she oversees grant submissions, compliance reviews, and budget reconciliations. She is a seasoned administrative and program management professional with over nine years of experience in contracts and grants,

procurement, HR, and customer service.

Previously, Smriti contributed to federal research initiatives at the National Institutes of Health and supported strategic operations as a Management Analyst for Kelly Government Solutions.

She holds a Master's degree in Administration of Human Services from Wilmington University and earned a Bachelor's degree in Health Education from Morgan State University.

Smriti has earned multiple awards, including the NHLBI 2024 Director's Award. Fluent in three languages, she is passionate about efficiency, problem-solving, and supporting impactful research and academic programs.



**Diana Margaret Gomes** serves as the Business Operations Manager, overseeing research administration's finance, human resources, and procurement activities, ensuring that day-to-day activities run smoothly and in

compliance with university, state, and federal policies. She also plays an essential role in managing grant submissions, pre-award financial functions, and operational planning for the department's research initiatives.

Diana brings more than 15 years of experience in federal and academic administration, including extensive leadership in budgeting, contracts, and program management. Before joining UMB, she served as a Branch Chief at the U.S. Department of Health and Human Services, where she managed complex multimillion-dollar programs and led teams supporting national health missions.

A proud graduate of two University System of Maryland institutions, Diana holds an MBA from the University of Maryland Global Campus and a Bachelor of Science in Information Systems from the University of Maryland College Park.

Known for her collaborative leadership, strategic thinking, and dedication to operational excellence, Diana plans to make a significant impact on the department's administrative and research success.