FSU | DEPARTMENT OF BIOMEDICAL SCIENCES
COLLEGE OF MEDICINE

NEWSLETTER

OCTOBER 2026 ISSUE





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DEPARTMENT OF BIOMEDICAL SCIENCES

SEMINAR



BAP1 Cancer Syndrome

MICHELE CARBONE, MD, PHD

William and Ellen Chair in Cancer Biology
and Human Cancer Genetics
Professor, Director Thoracic Oncology
University of Hawaii Cancer Center

Hosted By Dr. Gary Ostrander

WELCOME!



RASHIM MALHOTRA, PHD

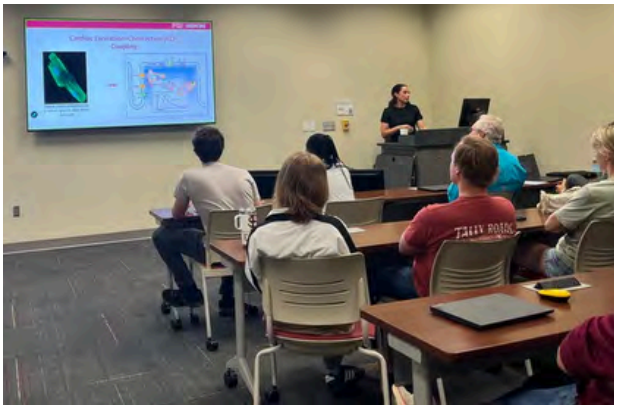
Postdoctoral Scholar
Dr. Anthony Ruberto's Lab

Dr. Malhotra earned her PhD at the Indian Institute of Science Education and Research (IISER) in Pune, India. Her doctoral research focused on RNA biology and gene regulation in Plasmodium falciparum, particularly the role of RNA-mediated mechanisms in parasite adaptation to stress.

GRADUATE STUDENT NEWS

CONGRATULATIONS DR. PAULA NIETO MORALES!







Paula Nieto Morales is a former graduate student in Dr. Jose Pinto's lab and has successfully defended her Dissertation Defense. **Let us congratulate Dr. Paula Nieto Morales!**

CONGRATULATIONS DR. DANAH ALQURAISH!







Danah Alquraish is a former graduate student in Dr. Yuan Wang's lab and has successfully defended her Dissertation Defense. **Let us congratulate Dr. Danah Alquraish!**

GRADUATE STUDENT NEWS

BIOMEDICAL SCIENCES GRADUATE STUDENT ASSOCIATION (BSGSA)

BIOMED
Biomedical Sciences Graduate Student Association
At Florida State University

The Biomedical Sciences Graduate Student Association is an organization of students, post-doctoral professionals, and faculty representatives that seeks to provide a forum for professional development in which members can gain invaluable knowledge to advance their scientific careers.

BIG SUBCOMMITTEE

The **Biotechnology Interest Group** (**BIG**) is a subcommittee under **BSGSA** who plan for events to promote industry and research interests amongst the graduate students at the College of Medicine.

Biomedical Sciences Graduate Student Association (BSGSA) at Florida State University
LinkedIn Group

The **FSU College of Medicine BSGSA** has launched a LinkedIn group to help students, alumni, faculty, and friends stay connected. Join the community by scanning the QR code or visiting: https://www.linkedin.com/groups/36170001/

THANK YOU BSGSA 2025-2026 BOARD MEMBERS FOR A MEMORABLE YEAR!



From left to right: **Quill Thomas** (Secretary), **Ryan Kiddle** (BMS Liaison), **Kendall P. Mine** (Outreach Chair), **Anthony Deluca** (Social Chair), **Madison Sterling** (Vice President), **Carson Mickey** (Treasurer) & **Abigail Kizer** (President)

GRADUATE STUDENT NEWS

CONGRATULATIONS!

NEW BSGSA 2026-2027 BOARD MEMBERS



HYEJE SUMAJIT
President



GABRIELA DE JESUS
Vice President



MICHAEL DISABATO
Treasurer



MARIO CASTILLO
Secretary



JACKSON MAST
Social Chair



JORDAN ATTEBERY
Outreach Chair



KENDALL MINE
BMS Wellness Committee Representative



CARSON MICKEY
BIG Director



RYAN KIDDLE
BMS/MSC Liaison

GRADUATE STUDENT NEWS



GALLAGE ARIYARATNE

ASIAN CARDIOVASCULAR SYMPOSIUM

Gallage Ariyaratne attend the **Asian Cardiovascular Symposium**, a pre-meeting symposium for the American Heart Association, Basic Cardiovascular Sciences 2026, held in Boston, MA from July 13th to 17th, 2026. Gallage spoke on the "***Role of Osteopontin in Late-Stage Myocardial Remodeling and Electrical Instability in Arrhythmogenic Cardiomyopathy***" followed by a poster presentation with the reflected name. Gallage ultimately won the **Pre-doctoral Oral Presentation Finalist Award**.

SOPHIA OWUTEY



ASCB-CELL BIO 2026 TRAVEL GRANT AWARDEE

A recipient of the ASCB-CELL BIO 2026 Meeting Travel Grant. The grant is $500 and will help cover my expenses for attending and presenting at the meeting. This year's meeting will be held in December. For more information visit the ASCB official site: https://www.ascb.org/cellbio2026/

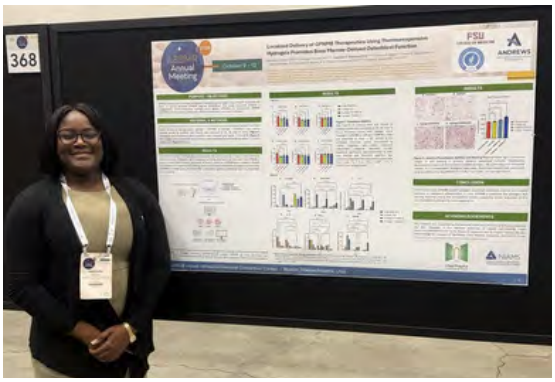
GRADUATE STUDENT NEWS

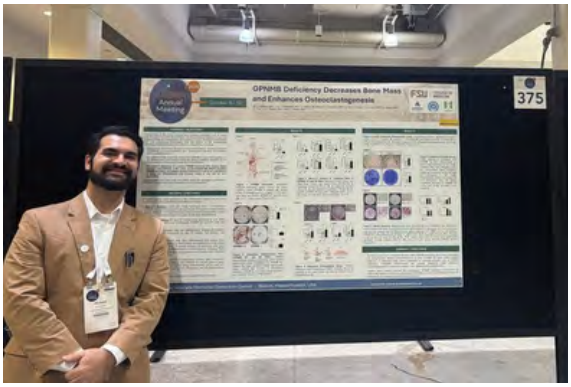
AMERICAN SOCIETY FOR BONE AND MINERAL RESEARCH (ASBMR) ANNUAL MEETING



From left to right: **Gabrielle Robinson** (Postdoctoral Scholar), **Edward Son** (M2 at NEOMED), **Dr. Fayez Safadi**, and **Mike DiSabato** (2026 BMS Graduate student) attended the **American Society for Bone and Mineral Research (ASBMR) Annual Meeting** in Boston, MA.

Gabrielle Robinson, PhD presented her research titled ***"Localized Delivery of GPNMB Therapeutics Using Thermoresponsive Hydrogels Promotes Bone Marrow-Derived Osteoblast Function"***





Mike DiSabato presented his research titled ***"GPNMB Deficiency Decreases Bone Mass and Enhances Osteoclastogenesis"***

GRADUATE STUDENT NEWS

NEW FSU CLUB



BALLROOM DANCE CLUB AT FLORIDA STATE UNIVERSITY

JOIN GROUP

Join the Ballroom Dance Club at Florida State University community by scanning the QR code or visiting: https://hq.fsu.edu/ballroomdanceclub/club_signup

FACULTY SPOTLIGHT

Boris Kantor, PhD is a Professor, in the Department of Biomedical Sciences at the FSU College of Medicine, and Director of the Viral Vector & Genome Editing Core Facility, Institute for Pediatric Rare Diseases (IPRD) at Florida State University. He also holds an adjunct professorship in the Department of Neurobiology at Duke University.

Dr. Kantor is affiliated with several research centers and institutes, including the Center for Advanced Genomic Technologies, Duke Institute for Brain Sciences (DIBS), Bryan Alzheimer's Disease Research Center, and the Center for Biomolecular and Tissue Engineering. Dr. Kantor's laboratory serves as a Viral Vector and Gene Editing Core, providing state-of-the-art gene-editing and viral-vector services to investigators worldwide.



Q: Can you share a little about your professional journey and what ultimately brought you to Florida State University?

I trained as a virologist and vector-development scientist at the Gene Therapy Center at the University of North Carolina at Chapel Hill, where my work focused on developing novel viral therapeutics for genetic diseases and advancing genetic discoveries toward clinical applications.



Dr. Boris Kantor

After completing my postdoctoral research under Drs. Kafri and Samulski, I was recruited to the University of South Carolina in Columbia, SC, where I served as Director of the Viral Vector Core and Assistant Professor of Neuroscience.

In 2016, I moved to Duke University to establish and lead the Viral Vector Core. At Duke, I also held a professorship in Neurobiology and served as a faculty member of the Center for Advanced Genomic Technologies and the Duke Institute for Brain Sciences.

In 2025, I was offered a position of the Director of Viral Vector and Gene Editing Core at the Florida Institute of Pediatric Rare Diseases. There I also joined as a Professor in the College of Medicine, Department of Biomedical Sciences. The Institute's mission closely aligns with my research and service interests.

I was particularly impressed by the vision, dedication, and commitment of IPRD, the Office of the Vice President for Research, and the Department of Biomedical Sciences leadership to advancing innovative, next-generation technologies. These efforts empower researchers at FSU and beyond to pursue impactful and innovative projects by providing access to high-quality viral vectors and gene-editing tools for a variety of preclinical applications.

Most importantly, IPRD's mission aligns with my passion for contributing to the development and advancement of new therapeutic approaches for children with rare diseases.

Q: Have there been any recent discoveries or developments from your lab that you're proud of?

My laboratory recently developed a novel epigenome editing approach to repress the genes that gain a toxic function that allows them to overexpress and cause disease.

The system was validated both in vitro and in mouse models and showed over an 80% repression of the target gene. In a mouse model, it was tested in the hippocampus and targeted the apolipoprotein E (APOE) gene—the strongest and most reproducible risk factors for Alzheimer's disease.

Furthermore, we applied similar strategy to augment overexpression of the Alpha-synuclein (SNCA) gene, which is implicated in Parkinson's disease (PD) pathogenesis, such devising a promising therapeutic strategy for this neurological disease.

Q: If you could leave graduate students with one bit of advice, what would it be?

1. Make connections and develop meaningful collaborations, as they are a cornerstone of modern scientific research.



Dr. Leanne Duke

Research Associate, Viral Vector & Genome Editing Core Facility

2. Do not be afraid to fail. Making mistakes are an integral part of a scientific success.

3. Look for a good mentor- she/he will make a crucial impact on your research skills and career growth.

Thank you Dr. Kantor for your insights as a virologist and vector-development scientist!

Here are a few suggested publications recently published by Dr. Kantor's lab:
The therapeutic implications of all-in-one AAV-delivered epigenome-editing platform in neurodegenerative disorders - PubMed

Neuronal-type-specific epigenome editing to decrease SNCA expression: Implications for precision medicine in synucleinopathies - PubMed

SNCA-targeted transcriptional repression therapy alleviates pathological and behavioral perturbations in a Parkinson's disease mouse model - PubMed

PUBLICATIONS



A global S-palmitoylation map of Trypanosoma cruzi identifies ABCA10 as a key component of a redundant heme-acquisition system

Seminario-Mondejar, G., Etheridge, M., Ruberto, A.A., Phan, S., Cricco, J.A., Etheridge, R.D. ***A global S-palmitoylation map of Trypanosoma cruzi identifies ABCA10 as a key component of a redundant heme-acquisition system***. Nat Commun (2026). https://doi.org/10.1038/s41467-026-77828-y

MK-801- and memantine-induced locomotor hyperactivity is attenuated by conditional loss of dopamine D2 receptors in select forebrain neurons

Thabet, Y., Neville, S.E., Shafau, A.O., Graham, D., Stanwood, G.D. ***MK-801- and memantine-induced locomotor hyperactivity is attenuated by conditional loss of dopamine D2 receptors in select forebrain neurons***. Discov. Neurosci. 21, 108 (2026). https://doi.org/10.1186/s13064-026-00338-6

Mapping Interaction of Assembly factor Rpn14 with the proteasome base reveals a bipartite interface and implies ordered remodeling of intersubunit contacts during proteasome biogenesis

Thomas,Q., Sterling, M., Carnley, L. G., Betancourt, D., Blount, T. A., Bitter, D. J., Jiao, F., Huang, L., Nemec, A. A., & Tomko, R. J. (2026). ***Mapping Interaction of Assembly Factor Rpn14 With the Proteasome Base Reveals a Bipartite Interface and Implies Ordered Remodeling of Intersubunit Contacts During Proteasome Biogenesis***. Journal of Molecular Biology, 438(21), 169978. https://doi.org/10.1016/j.jmb.2026.169978

Myosin filaments of vertebrate skeletal and cardiac muscle are highly similar, but not identical

Tilko PG, Rastegarpouyani H, Esfahani BG, Pinto JR, Taylor KA. ***Myosin filaments of vertebrate skeletal and cardiac muscle are highly similar, but not identical.*** Nature Communications. 2026 (in press). https://doi.org/10.1038/s41467-026-78643-1

DEPARTMENT OF BIOMEDICAL SCIENCES

PUBLICATIONS



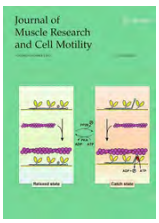
The structure of the native cardiac crossbridge in the rigor state

Risi, CM., Nguyen. T., Belknap, B., White, HD., Pinto, JR., Chase, PB., Galkin, VE. ***The structure of the native cardiac crossbridge in the rigor state.*** Science Advances. 2026 Aug 28; 12(35):eaeg1209. doi: 10.1126/sciadv.aeg1209. Epub 2026 Aug 26. PMID: 42647613



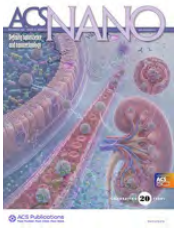
Homozygous TNNC1-A8V Causes Impaired Diastolic Function and Restrictive Cardiomyopathy in Children and Mice

Nieto Morales P, Dewars E, Mascarenhas AM, Silzer M, Bidzimou MT, Sun B, Balint B, Gregory S, Osei Assibey M, Dieseldorff Jones K, Kanashiro-Takeuchi R, Lores J, Prada M, Ocampo CE, Glass C, Chase PB, Galkin VE, Chelko SP, Landstrom AP, Pinto JR. ***Homozygous TNNC1-A8V Causes Impaired Diastolic Function and Restrictive Cardiomyopathy in Children and Mice***.Circulation: Genomics and Precision Medicine. 2026 Sep 30:e005599. doi: 10.1161/CIRCGEN.125.005599. Online ahead of print. PMID: 42813252



Hypertrophic cardiomyopathy-linked Tnnc1 variants are associated with distinct myopathic changes in slow skeletal muscle of mice

Patel, S., da Silva Santos, GL., Florence, J., Kahmini, AR., Shi, Y., Garcia, MR., Gordon, BS., Chase, PB., Solís, C., Laitano, O., Pinto, JR., Parvatiyar, MS. ***Hypertrophic cardiomyopathy-linked Tnnc1 variants are associated with distinct myopathic changes in slow skeletal muscle of mice.*** Journal of Muscle Research and Cell Motility. 2026 Aug 3;47(3):18. doi: 10.1007/s10974-026-09736-z. PMID: 42545432



A Rapid Poly(ethylene glycol)-Assisted Magnetic Isolation Approach for High-Throughput Extracellular Vesicle Isolation and Subsequent Biomarker Analysis

Sun,L., Duke, L., Vied,C., Hammel,G., Pate,B., Wang,Y.J., Zhang,Y., Tian,D.S., Fan,J., Ren,Y.; ***A Rapid Poly(ethylene glycol)-Assisted Magnetic Isolation Approach for High-Throughput Extracellular Vesicle Isolation and Subsequent Biomarker Analysis.*** ACS Nano 8 September 2026; 20 (35): 24492–24511. https://doi.org/10.1021/acsnano.6c09351