



SCHOOL OF MEDICINE & DENTISTRY
UNIVERSITY of ROCHESTER MEDICAL CENTER

**2024 UR School of Medicine
Discover UR SMD Weekend**

Poster Session

**Saturday, February 3, 2024
11:00 am – 1:00 pm
Flaum Atrium**

Immunology, Microbiology & Virology

- 1. Early Life Exposures to Per- and Polyfluoroalkyl Substances (PFAS) on the Developing Neonatal Immune System***
Authors: **Darline Castro-Meléndez**, Nathan Laniewski, Xing Qiu, Qiuyi Wu, Christina Post, B. Paige Lawrence, Richard Miller, Emily Barrett, Todd A. Jusko, Thomas O'Connor, and Kristin Scheible
- 2. Conserved mechanism of CAR- T cell migration to solid tumors***
Authors: **Sana Mir**, Allison Ryan, Yeonsun Hong, Cooper Sailer, Minsoo Kim
- 3. TYPE I INTERFERONS***
Authors: **Maggie L. Lesch**, Taylor P. Uccello, Jiyong Zhao, Edith M. Lord, David C. Linehan Scott A. Gerber
- 4. Host Adaptative Mutations in the Influenza A pH1N1 PA C-Terminal Domain Affect Genome Replication***
Authors: **Jordana Schmierer**; Michael Lutz; Toru Takimoto
- 5. Sars-cov-2 uses Rab5+ membranes to build replication organelles***
Authors: **Yuexuan Chen**, Susanne Klute, Konstantin Sparrer, and Ruth Serra-Moreno
- 6. Characterization of CD4 and B cell heterogeneity in a pediatric population***
Authors: **Natalie Vance**, Ashay Narayana, Kirsi Järvinen-Seppo, Juilee Thakar
- 7. Targeted radiation and IL-12 immunotherapy stimulate a systemic immune response to protect against pancreatic tumor recurrence***
Authors: **Tara G. Vrooman**, Angie Hughson, Gary Hannon, Bradley N. Mills, David C. Linehan, Scott A. Gerber
- 8. Gut microbe derived polyamines alter macrophage function and gene expression during S. aureus challenge***
Authors: **Emily A. Britt**, Steven R. Gill

Cellular & Molecular Pharmacology & Physiology

- 9. *Relative importance of reactive oxygen species from reverse electron transfer at mitochondrial complex I in early reperfusion conditions***
Authors: **Caio Tabata Fukushima**, Ian-Shika Dancil, Hannah Clary, Nidhi Shah, Paul S. Brookes
- 10. *Thrombocytopenia independently leads to changes in monocyte function in a platelet CD47 dependent manner***
Authors: **Chen Li**, Sara K. Ture, Benjamin Nieves-Lopez, Sara K. Blick-Nitko, Preeti Maurya, Alison C. Livada, Tyler J. Stahl, Minsoo Kim, Anthony P. Pietropaoli, Craig N. Morrell
- 11. *Suppression of cerebral cavernous malformation (CCM) nonsense mutations using anti-codon edited tRNAs (ACE-tRNAs)***
Authors: **Rhodalyn Essien**, Angela Glading, John Lueck
- 12. *ACE-tRNA and small molecule combinatorial treatment of CF nonsense mutations***
Authors: **Wooree Ko**, Joseph J. Porter, and John D. Lueck
- 13. *Dysregulated Ca²⁺ signaling, fluid secretion, and mitochondrial function in a mouse model of early Sjögren's syndrome***
Authors: **Kai-Ting Huang**, Larry Wagner, Takahiro Takano, Xiao-Xuan Lin, and David I. Yule
- 14. *Benefit of amlodipine or ranolazine on myotonic dystrophy bi-channelopathy***
Authors: **Lily Cisco**, Matthew Sipple, Katherine Edwards, Charles Thornton, John Lueck
- 15. *Mu opioid receptor positive allosteric modulator BMS-986122 differentially alters pharmacological properties of opioids depending on the co-binding G α subunit***
Authors: **Grant M. Griebel**, Brian I. Knapp, Jean M. Bidlack
- 16. *The role of bone remodeling in regulating hematopoietic cell expansion***
Authors: **Cih-Li (Amy) Hong**, Kevin Lee, Zi Yin, Haiyin Li, Melissa MacLiesh, Wimeth Dissanayake, Laura Calvi, Chike Cao, Shu-Chi A. Yeh

17. *Regulates the extent of fibroblast proliferation and fibrosis in left ventricle pressure overload.*

Authors: **Xiaoyi Liu**, Ryan M. Burke, Janet K. Lighthouse, Cameron D. Baker, Ronald A. Dirkx Jr, Brian Kang, Yashoswini Chakraborty, Deanne M. Mickelsen, Jennifer J. Twardowski, Stephano S. Mello, John M. Ashton, Eric M. Small

18. *Prior exposure to exercise and heat stress increases Ryr1 calcium leak in muscle of male MHS mice*

Authors: **Miao He**, Sundeep Malik, Robert T. Dirksen

19. *Role of the orphan G Protein-Coupled Receptor GPRC5B in retinoic acid-induced depressive-like behaviors*

Authors: **W. Wendy Fu**, Luca Franchini, Nina Wettschureck, Cesare Orlandi

20. *Gα protein signaling bias at 5-HT1A receptor*

Authors: **Rana Alabdali**, Luca Franchini, and Cesare Orlandi

Translational Biomedical Science

21. *A Pilot study identifying relative parental value systems for DHH child developmental domains in the context of Early Hearing Detection and Intervention (EHDI) system narratives*

Authors: **Michelle Koplitz**, Wyattte Hall, Peter Veazi

22. *Characterization of the temporal, cell-specific and interferon-inducible patterns of indoleamine 2,3 dioxygenase 1 (IDO1) expression in the human placenta across gestation*

Authors: **Gayathri Guru Murthy**, Mallory A. Prideaux, Madison Armstrong, H. Mark Kenney, Sarah E. Latchney, Martha Susiarjo, Shawn P. Murphy

Toxicology

23. *Effects of Gestational and Lactational Exposure to Perfluorohexanoic Acid (PFHxA) on Cerebellum Development*

Authors: **Elizabeth C. Plunk**, Linh Le, Kathrine E. Manz, Marissa E. Sobolewski, Ania K. Majewska

- 24. *High levels of efferocytosis by mesenchymal stromal cells increases their senescence, decreases bone and causes myeloid skewing***
Authors: **Emily R. Quarato**, Noah A. Salama, Jane Zhang, Yuko Kawano, Allison J. Li, Roman Eliseev, Laura M. Calvi

Neuroscience

- 25. *Using Blood-Oxygen Level Dependent Imaging to Measure Cerebrovascular Reactivity in Patients with Cerebrovascular Disease***
Authors: **Aaron Huynh**, Andy Gonzalez, Madalina Tivarus
- 26. *Neural subpopulations in marmoset area MTC show more extra-retinal tuning for saccade direction than area MT.***
Authors: **Amy Bucklaew**, Shanna Coop, Jude F. Mitchell
- 27. *Vibrotactile tuning of inhibitory neuron subtypes in the mouse forepaw primary somatosensory cortex***
Authors: **Michael Duhain**, McKenzie Yun, Kuan Hong Wang, Manuel Gomez-Ramirez
- 28. *EEG artifact in Deep Brain Stimulation Patients: the Halo Effect***
Authors: **Abigail A. Alpers**, Manuel Gomez-Ramirez, Karlo J. Lizarraga, Angela L. Hewitt
- 29. *Microglial surveillance and injury response are controlled by regionally modulated signaling pathways***
Authors: **Mark Stoessel**, Rianne Stowell, Rebecca Lowery, Andy Vu, Ania Majewska
- 30. *Cognitive-motor interactions in neurotypical children and young adults using mobile brain-body imaging (MoBI) show age-related differences in neurophysiology and response inhibition task performance***
Authors: **Paige R. Nicklas**, Edward G. Freedman, John J. Foxe
- 31. *AER-271 is a novel, effective inhibitor of the glymphatic system***
Authors: **Michael Giannetto**, Daniel Gahn-Martinez, Evan Newbold, Ethan Chang, Maiken Nedergaard
- 32. *Arginine Vasopressin in the Cerebral Spinal Fluid Increases Glymphatic Function***

Authors: **Estephanie Balbuena**, Emma Waight, Hannah Sattler, Yuxi Zhu, Lauren Hablitz

33. *Characterizing Population Dynamics of Prefrontal Cortex that Govern the Modulation of Visual Processing*

Authors: **J. Gonzalez-Amoretti**, A. Snyder

34. *Translational Control of Cardiac Physiopathology via RBP*

Authors: Lindsey Wainwright, Omar Hedaya, Feng Jiang, **Peng Yao**

Biochemistry & Biophysics

35. *Application of Molecular Dynamics to Elucidate Key Binding Interactions for the Development of Therapeutics Against Opioid Overdose*

Authors: **Emily N. Robinson**, James M. Seckler, Stephen J. Lewis, Alan Grossfield

36. *Investigating the Role of RNA Helicase in Splicing Changes caused by Cancer Associated SF3B1*

Authors: **Leon Harvey**, Mohammed Ali, Xueyang He & Paul Boutz

37. *Automated clustering of RNA backbone conformations to define RNA 'Suites'*

Authors: **James T. Seuch**, Anees Keedakkatt, Chapin Cavender, David H. Mathews

38. *Disposable Photonics: Engineering Light for Triage at the Point-of-Care*

Authors: **Daniel J. Steiner**, Michael R. Bryan, Benjamin L. Miller

39. *Targeted pseudouridylation: An approach for suppressing nonsense mutations in disease genes*

Authors: **Hironori Adachi**, Yi Pan, Xueyang He, Jonathan L. Chen, Bart Klein, Gerard Platenburg, Pedro Morais, Paul L. Boutz, Yi-Tao Yu

40. *Novel CRISPR screening pipeline identifies JUNB as an inflammatory anti-viral factor*

Authors: **Nicole Waidl**, Jessica Ciesla, Joshua Munger

41. *Finite-size Effect on the Free Energy Landscape of Phase Separation in Lipid Bilayers Estimated Using Molecular Dynamics*

Authors: **Ashlin James Poruthoor**, Akshara Sharma, Jack J Stallone, Megan Miaro, Alan Grossfield

42. *Examining the Role of Histone Demethylase KDM5B in Estrogen Receptor Positive Breast Cancer*

Authors: **Zachary Smith**, Christina Davidson, Ching-Hua Shih and Paula Vertino

Student Groups & Resources

43. *myHub - Professional Development*

Presented by **Eric Vaughn**

44. *SACNAS - Society for the Advancement of Chicanos/Hispanics and Native Americans in Science*

Presented by **Julia Nicosia**