



PATHWAY TO SCIENTISTS UNDERGRADUATE RESEARCH PROGRAM 2025 Winter Research Symposium

2:30 PM (US Eastern Time), December 10th, 2025
(NJMS Cancer Center G1196, 205 S Orange Ave, Newark, NJ 07103)

Opening Remarks (2:45 PM)

1. William C. Gause, Ph.D.

Senior Associate Dean for Research, New Jersey Medical School
Director, Institute for Infectious and Inflammatory Diseases

2. Jacqueline Matis, Ph.D.

Dean, School of Arts and Sciences (SASN)
Rutgers University- Newark

3. Bishr Omary, M.D.

Senior Vice Chancellor for Academic Affairs and Research
Rutgers Health

4. Robert Johnson, M.D.

The Sharon and Joseph L. Muscarelle Endowed Dean
New Jersey Medical School

5. Amy Murtha, M.D.

Dean, Robert Wood Johnson Medical School

Oral Presentations:

1. **Rita Hanry:** Studying genomic stability at the subtelomere and telomere regions of *Saccharomyces Cerevisiae*.

Katsunori Sugimoto lab, Department of Microbiology.

2. **Deborah Odekunle:** Effects of a Paneth Cell-Specific CCL6 Knockout on Intestinal Inflammation.

Nan Gao lab, Center for Immunity and Inflammation, Department of Pharmacology, Physiology and Neurosciences.

3. **Rebecca George:** How CD103 Regulates Tissue-Resident Memory T Cell Maintenance in the Small Intestine.

Tessa Bergsbaken lab, Center for Immunity and Inflammation, Dept. of Pathology

4. **Nanakonadu Osei:** Sex Differences in Neutrophil Responses to SHIVC109-Infected Rhesus Macaques.

Theresa Chang lab, Microbiology, Biochemistry & Molecular Genetics, Public Health Research Institute.

5. **Tatenda Chivasa:** Exploring Alglib as an optimizer for mirdcell.

Roger Howell lab, Department of Radiology, Cancer Research Center.

6. **Victor C. Agbara:** Transcriptome Data Analysis.

Lanbo Shi lab, Public Health Research Institute, School of Pharmacy.

7. **Fatimah Bah:** Exploring Cerebrovascular Reactivity in Alzheimer's Disease Using Fiber Optics.

Hyung Ahn lab, Department of Pharmacology, Physiology and Neurosciences, Brain Health Institute.

8. **Kendra Spencer:** MabA Protein Functional Assay.

Joel Freundlich lab, Department of Pharmacology, Physiology and Neurosciences. Public Health Research Institute.

9. **Angel Diaz:** Effects of Mptx1/2 Knockout on the colon and the impact of DSS-treatment.
Nan Gao lab, Center for Immunity and Inflammation, Department of Pharmacology, Physiology and Neurosciences.
10. **Archana Patel:** *Effect of Pseudomonas aeruginosa secreted molecules on growth of other bacteria.*
Nikhat Parveen lab, Department of Microbiology and Molecular Genetics, NJMS.
11. **Ailin Mayorga:** Downregulation of Tight Junction Proteins on the Endothelium in Experimental Cerebral Malaria.
Robin Stephens lab, Center for Immunity and Inflammation.
12. **Khushi Garg:** From Barrier to Breach: Endothelial Protein Involvement in Fibrinogen-Driven Cerebral Amyloid Angiopathy.
Hyung Ahn Lab, Brain Health Institute, Department of Pharmacology, Physiology & Neuroscience.
13. **Prachi Rana:** Spatial transcriptomics localize pathogen specific changes in lung tissue immune landscape.
William Gause lab, Center for Immunity and Inflammation, Department of Medicine.
14. **Kelly Herrera:** Investigating Interferon- λ Orchestration of Lung Structural Cell Responses During Fungal Infection.
Amariliz Rivera lab. Center for Immunity and Inflammation, Department of Pediatrics.
15. **Sameer Mittal:** Role of FGFR3 in 9-cis RA Mediated Lymphatic Regeneration.
Alex Wong lab, Center for Immunity and Inflammation, Department of Surgery.
16. **Martin Fouad:** Age-Dependent Regulation of Manganese Efflux by Vitamin D and Calcium.
Sylvia Christakos lab, Department of Microbiology, Center for Immunity and Inflammation.

17. **Aadit Padhi:** Cohort analysis for comorbidities related to Cryptococcosis susceptibility.
Jessica Hargarten lab, Department of Pathology, Center for Immunity and Inflammation.

18. **Ngozi Nwachukwu:** Construction of a fluorescently labeled drug target.
Chaoyang Xue Lab, Department of Microbiology, Biochemistry & Molecular Genetics
Public Health Research Institute.

19. **Chinmay Bapat:** Evaluating LIF and Kaempferol as treatments for mild traumatic brain injury.
Steven Levison lab, Department of Pharmacology, Physiology & Neuroscience, Brain Health Institute.

20. **Amal Akkad Wattar:** Investigating ER Stress and Growth Defects In Plasmodium falciparum Lacking two ER-Shaping Proteins.
Purnima Bhanot lab, Department of Microbiology, NJMS.

21. **Ziyad Hassan:** Quantifying Immunosenescence in T Regulatory Cells.
Patricia Fitzgerald-Bocarsly, Department of Pathology, Immunology and Laboratory Medicine, NJMS

22. **Akilesh Rajan:** Targeting Mitochondrial Function in Prostate Cancer
Alex Papachristodoulou lab, Department of Microbiology, Center for Immunity and Inflammation.

23. **Thomas Mansour:** Fighting Viruses With Heat: How Chili Pepper Compound Blocks Infection
Lok Yin Roy Wong lab, Department of Microbiology, Biochemistry and Molecular Genetics
Center for Virus-Host Innate Immunity

24. **Sisir Datla:** Patterns of HIV Infection in Latino Population Subgroups
Stanley Weiss lab, Department of Medicine, NJMS

