Microbiology and Immunology Program Class of Fall 2024



Brandon Bruno

I received my B.S in Biology from Niagara University in May of 2022. After graduation I spent two years working as a Lab technician in the research lab of Dr. Elizabeth Grayhack at the University of Rochester. My current research interests are in infectious diseases and understanding more about host-pathogen interactions to find ways to combat infections.



Aisling Byrne

As an undergraduate at Rutgers University, Aisling was a member of a lab researching both Ewing Sarcoma and Human T-Cell Leukemia Virus Type-1 (HTLV-1). The Ewing Sarcoma project questioned the impact of HDAC inhibitors on the histone modifications and gene expression of the pediatric cancer cells, specifically looking for an attenuation of the cell's malignant phenotype. Meanwhile, the HTLV-1 project focused on the role of RNA binding proteins on the RNA stability and gene expression of CD4+ T-cells which were latently infected with HTLV-1. Aisling continues to have an interest in the overlap between virology and the immune system.



Dante Dullas (MSTP)

Dante Dullas is an MD/PhD Candidate at the Stony Brook University Renaissance School of Medicine where he is interested in using biophysical and chemical biology approaches to interrogate mechanisms of bacterial virulence. Currently, he is pursuing his doctoral studies in the laboratory of Prof. Thanassi where he is investigating novel modalities to probe and inhibit the biogenesis of type I pili in uropathogenic E. coli. As a graduate of Stanford University, Dante holds a BS in Chemistry, with a minor in English, and an MS in Biology. At Stanford, Dante was an undergraduate researcher in the laboratory of Prof. Lynette Cegelski where he examined bacterial biofilms with a chemical lens and used biochemical assays to define the mechanisms of novel biofilm inhibitors.

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Huiyeon Kim

I graduated from SBU in 2024 with a B.S. in Biochemistry. My research interests lie in infectious diseases and the immune response of the host against pathogen infection. During my undergraduate years, I was involved in the study of host-virus interactions in relation to different viral binding motifs.



Autumn Laird

I graduated from Ramapo College of New Jersey with a B.S. degree in Biology and completed two minors in Neuroscience and Public Health. For her undergraduate honors thesis, I investigated the electrophysiology of Attention Deficit Hyperactivity Disorder (ADHD) using the Event-Related Potential technique. Following graduation, I worked in the biotechnology industry in multi-omics. My current research interests include infectious disease pathogenesis and the identification of novel targets for vaccine and drug development.



Madaleine Niznikiewicz (MSTP)

As a student in the Medical Scientist Training Program (MSTP) I am interested in contributing to the understanding of the interplay between cells of the immune system and disease-causing agents, and how it ultimately affects clinical outcomes. During my undergraduate training at the University of Massachusetts Amherst, I examined the kinetic refolding properties of the metastable protein A1AT. After graduation, I spent two years at NIDDK at the NIH, seeking to elucidate, through application of genetic and biochemical techniques in *Saccharomyces cerevisiae*, the mechanisms by which prion formation is prevented and controlled. Specifically, I identified genetic relationships between a novel component of the yeast anti-prion system and other known and unknown actors previously found.

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Kiyoshi Shiomitsu

I received my B.S. in Biochemistry from Stony Brook University. My research interests include exploring the mechanisms of immune system signaling, mainly regarding immune response to pathogens



Shrey Thaker (MSTP)

I am Shrey Thaker, an aspiring GI physician scientist. As I've explored my long-seeded curiosity for science, I've cultivated it into a passion for biochemistry, physiology, and understanding the vexing concept of autoimmunity... how and why would someone's body attack itself, subverting the biological drive to survive? Previously, I have explored colon cancer racial health disparities, testing novel fluoropyrimidine chemotherapeutics, and dietary modulation of the FAS apoptotic pathway in synergy with fluoropyrimidine chemotherapeutics. Additionally, I have dissected the microRNA-34a/p53 tumor suppressor pathway and characterized its differences between Caucasian American and African American colon cancer cells. I am currently pursuing research in the field of gastroenterology and mucosal immunology.



Michael Williams

I received my BS in Biology, Health, and Society from the University of Michigan and an MS from the Icahn School of Medicine at Mount Sinai. My current research interests lie in exploring diseases induced by viruses with pandemic potential and alterations in cancer. I'm particularly interested in alterations in host mechanisms associated with these diseases, in order to illuminate novel potential targets for future therapies or interventions.