





UMASS LIFT PROGRAM FALL 2024



Cohort- II

Experiential Biotech and MedTech Learning Initiative Targets Breakthroughs in Aging and Alzheimer's Research

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Brennan Falcy

PhD Candidate at University of Massachusetts, Amherst Email: brennanf.2@gmail.com

I received my B.S. in Neuroscience from UCLA, where I also worked for three years in a lab investigating brain-hormone interactions. During my graduate training at UMass Amherst, I have studied the metabolic and behavioral consequences of circadian disruption in mice. I have become well-read with the current literature surrounding circadian rhythms and metabolism, as well as modern techniques in these fields. In sum, my research focuses on how different physiological processes work to maintain homeostasis.

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Emre Bektik

Post Doctoral Researcher at Harvard Medical School, Brigham and Women's Hospital

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I earned my BEng in Genetics and Bioengineering in Turkey and my PhD in Human Biology in Japan. Throughout my studies, I conducted research on myocardial infarction, heart regeneration, and cardiac arrhythmias, publishing several first-author papers in these areas. Currently, as a postdoctoral research fellow, I am focusing on diabetes-related atherosclerosis, specifically exploring how the non-coding genome (such as lncRNA) influences the development of atherosclerotic lesions in diabetic mouse models.

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Katrina Rodheim

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My interest in sleep began as a post-bacc researcher where I learned the fundamentals of sleep and memory research. I then pursued a master's degree and learned how to conduct highly controlled circadian protocols. While I have gained valuable experience in understanding sleep and circadian rhythms, I have always had a personal interest in women's health and emotional well-being. Therefore, my current research focus aims to investigate whether sleep and ovarian hormones interact to influence emotional memory in aging.

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https://m2d2challenge.com/lift-program



Kyrie Wilson

PhD Candidate at Medical University of South Carolina Email: chandlky@musc.edu

I am a 5th year PhD candidate researching the effect of mtDNA damage in agerelated diseases and working to develop clinically relevant therapies to treat/reverse that damage. I am passionate about translating research findings to the clinic, where they may benefit society. In pursuit of this, I am part of a team awarded a Blue Sky Award for the innovativeness of the mtDNA project, assisted in the filing of a patent regarding the technology, and have submitted a first-author manuscript, which is currently in revision.

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Stefania Tocci

Post Doctoral Researcher at University of Massachusetts, Lowell Email: stefania tocci@uml.edu

I am a postdoctoral fellow in the Das lab in the Department of Biomedical and Nutritional Science at the University of Massachusetts, Lowell. My current research projects involve host-microbe interactions contributing to inflammation linked to chronic diseases. Since my PhD, I have acquired expertise in cellular and molecular biology, imaging and gene editing which helped me expand my research in disease modeling using primary cells and patient-derived organoids, with potential applications for targeting chronic diseases

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Sumithra Madhalalo

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Civil engineering is vital in the production and distribution of millet food products by designing and constructing essential infrastructure such as irrigation systems, processing plants, and transportation networks. These ensure efficient cultivation, processing, and distribution. Additionally, civil engineers implement sustainable practices like water management and soil conservation, boosting agricultural productivity. This synergy supports rural development and sustainable agriculture, benefiting the millet industry.

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Tariful Islam

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I earned my PhD from the Department of Nutritional Sciences at Texas Tech University in fall 2022 with research focus on obesity. Before my graduate studies, I worked as a protein purification scientist at a biosimilar manufacturing biopharmaceutical company in Bangladesh, and later as a research fellow at Juntendo University in Tokyo, Japan. Currently, I am working as a postdoctoral fellow at Emory University in Atlanta, USA. My current research focuses on aging, obesity, and neurodegenerative diseases.

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Taylor Pio

PhD Candidate at Emory UNIVERSITY Email: <u>taylor.pio@emory.edu</u>

I performed research as an undergraduate at University of California, Los Angeles (UCLA) and as a summer intern at the National Institutes of Health (NIH). I then spent two years at a startup Contract Research Organization in New Orleans, allowing me to drive scientific innovation in an industry setting. I am pursuing my PhD in Neuroscience at Emory University. I use our label unique model system to manipulate the cells of the oligodendrocyte lineage.

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Yogesh Joshi

PhD Candidate at Wayne State University Email: yogesh.joshi1400@wayne.edu

I am an international student from Nepal pursuing my PhD at the School of Medicine, Wayne State University, in the Department of Anatomy and Cell Biology. I am currently in my third year working in Dr. Ryan Insolera's lab. My research focus is on the Drosophila model of mitophagy defect leading to neurodegeneration. I am particularly focused on sterile immune activation followed by mitochondrial dysfunction and mitophagy defect caused by the ataxia-related Vps13D gene.

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Zijue Huang

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I started my research studying flavor and other organic compounds in beer during my undergraduate studies, then moving to University of Colorado Denver for masters degree analyzing adverse drug reactions associated SNPs using computational modeling. For my PhD at the Knoebel Institute for Healthy Aging University of Denver, my primary focus is elucidating the mechanism of chaperone nucleic acids in protein folding.

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