Seeking undergraduate research assistants!

Principal Investigators: Christina L. Williams, PhD.

Graduate Student Researchers: Janai R. Williams and Sara V. Maurer

The Williams’ lab is seeking dedicated and driven undergraduates to join the lab on one of two projects.

**Project 1: Impact of chronic early life stress on cognitive decline and neuropathogenesis in a female mouse model of Alzheimer’s Disease.** This project examines Alzheimer’s disease (AD) and chronic early-life stress (CES) in relation to altering the course of brain and behavioral development. The aim of this project is to evaluate human-like mouse model of CES together with a human-like mouse model of AD in females to determine the mechanisms underlying the effects of CES on the progression of neurodegeneration, depressive like symptoms and cognitive decline.

**Project 2: Preventing Post-Operative Cognitive Dysfunction with diet in mice.** The second project seeks to mitigate post-operative cognitive dysfunction (POCD) using dietary choline supplementation in a mouse model. We use mouse models to examine how diet, not drugs, can improve cognition on behavioral, cellular, and molecular levels.

We are seeking highly motivated students who are expected to learn and assist with any and all tasks associated with their specific project including: handling mice, running behavioral tasks, dissection, perfusions, slicing and staining mouse tissue, using a microscope and ImageJ to count cells, and statistically analyzing data. We are looking for students who will commit to being in the lab for at least two semesters and possibly the summer. Based on performance in the lab, accepted students can expect one-one training, opportunity to present research at conferences, assistance in applying for travel grants and fellowships, a letter of recommendation, and/or possible author credit on poster presentations and papers (typically for Graduation with Distinction students with 2+ years in the lab).

The Williams’ lab has high expectations for our incoming and existing undergraduates, and we take pride in using the lab as a space to learn and flourish under the mentorship of the Principal Investigator, graduate students, and fellow undergraduates.

Please feel free to contact Janai.Williams@duke.edu (graduate student on AD project) or sara.maurer@duke.edu (graduate student on POCD project) regarding your interests and/or questions on both/or one of these projects.