

Internship at WALII Campus: Michigan State University (Fleming Lab, VanBuren Lab, and Rhee Lab)

WALII Project (VanBuren Lab): Identify conserved and lineage-specific molecular responses to anhydrobiosis

About the VanBuren Lab: The VanBuren Lab applies an integrative genomic, quantitative genetics, and evolutionary approach to understand the genetic basis of natural adaptations in plants for targeted crop improvement. Researchers in the VanBuren Lab use more conventional breeding approaches coupled with a systems biology approach to improve drought tolerance of underutilized crop species. Learn more at: <https://www.vanburenlab.org/research.html>

WALII Project (Rhee Lab): Investigating molecular pathways essential for seeds to survive desiccation and rehydration.

About the Rhee Lab: The Rhee Lab combines computational and experimental approaches to reveal molecular mechanisms underlying adaptive strategies in plants. The Rhee Lab focuses on metabolic traits at multiple scales including individual genes, pathways, and networks. They also uncover novel functions, mechanisms, and pathways of 'unknown' genes (those that are not similar to any known genes). This project will leverage recent advances in microscopy, genetics, and physiology to investigate seed dehydration and rehydration using an interdisciplinary lens, ranging from molecular biology and cell biology to organismal development. Learn more at: <https://www.rheelab.org/>

How to apply: Please apply through the [Plant Genomics REU Program](#) application portal. In your application materials, specify that you are interested in working on the Water and Life Interface Institute project in the Rhee Lab and/or the VanBuren Lab. In your cover letter, describe why you are interested in the lab, the questions that you want to pursue, and your goals. ****NOTE:** Interns in the Rhee Lab and/or the VanBuren Lab will be participating in the Plant Genomics REU Program, in addition to the WALII virtual network.

Application due date: February 5, 2024

Questions? Contact plantgen@msu.edu

Please note: Interns hosted by labs at Baylor College of Medicine, University of California (Merced), University of California (Berkeley), Michigan State University, California State University-Channel Islands, and University of Wisconsin-Madison will also be part of an **on-campus cohort** of interns unaffiliated with WALII and will have additional opportunities for in-person social activities.