

Phillip Woolley

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Education

BS in Biochemistry , GPA: 3.82

May 2020

The University of Texas at Austin, Austin TX

Honors and Awards

NSF REU Intern at the Donald Danforth Plant Science Center

Summer 2019

Excellence for Outstanding Presentation of a Research Poster, Central Texas

Undergraduate Research Conference

November 2018

TIDES Advanced Research Fellowship,

June-July 2018

Excellence in Biochemistry, UT CNS Undergraduate Research Forum

April 2018

FRI TIDES Summer Fellowship,

June-July 2017

SURGe Award for Best Freshmen Research Initiative Poster

April 2017

Leadership Experience

Ride Director for Texas 4000 for Cancer

Spring 2019-Present

- Texas 4000 for Cancer is an organization that cultivates young leaders in the fight against cancer, whose signature event is the longest annual charity bicycle ride in the world, from Austin, Texas to Anchorage, Alaska. The Ride Director position is the lead organizer of the ride, the highest leadership position offered.

Unit Lead, Camp Kesem UT Austin

Summer 2018, Summer 2019

- Camp Kesem is nationwide nonprofit dedicated to providing a free, weeklong summer camp and yearlong support system for children who have a parent or parents affected by cancer. The Unit Lead position is the head counselor for a given age group, in charge of leading both campers and counselors.
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Research Experience

Slotkin Lab NSF REU Summer Research Project

As per the request of the Slotkin Lab (University of Missouri, Donald Danforth Plant Science Center), the specifics of the project are currently kept confidential until publication of results. Summer 2019

eIF-iso4G1 Project:

To examine the role of CDPK (Calcium Dependent Protein Kinase) dependent phosphorylation of eIFiso4G1 in plants, as well as which proteins are being effected by CDPK phosphorylation and eIFiso4G knockout. (Dr. Karen Browning)

Summer 2017-present

CDHR3 Project

To solubilize the Cadherin-related family member 3 protein to be later used to test interactions with Rhinovirus C. (Dr. Jason McLellan) Summer 2018-Fall 2018

CDX2 Project:

To identify the active site on the human homeobox CDX2 protein responsible for ATM inhibition. (Dr. Tanya Paull) Spring 2017

Experimental Skills

- Polymerase chain reaction (PCR), including Extension Poly A Test (ePAT)
 - DNA cloning: Restriction Enzyme digest and ligation, Mutating DNA via site directed mutagenesis, inversion PCR
 - Plasmid purification: miniprep and midiprep
 - Agarose gel electrophoresis and DNA Gel extractions
 - *E.coli* Transformation
 - Colony screening
 - Competent cell preparation
 - Protein expression using IPTG inducible promoters
 - SDS-PAGE
 - Western Blot analysis
 - Affinity chromatography: Nickel-NTA resin, amylose resin, 7-Methyl G resin
 - Ion exchange chromatography: phosphocellulose resin
 - Total RNA Extraction via TRIzol preparation, working in an RNase free environment
 - Arabidopsis Thaliana seed preparation and planting, tissue sampling and culturing
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Programs

- Python and Jupyter Notebook
- R Studio
- Bash
- Excel, MS Office Programs
- Adobe Illustrator, InDesign, and Photoshop