

# Amy Moore

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## Education

**B.S. University of Minnesota, Twin Cities (Minneapolis, MN)**

**2018-2022**

College of Biological Sciences  
Major: Genetics, Cell Biology, and Development  
Minor: Plant Biology

### Honors and Awards

High Distinction Graduate **2022**

University of Minnesota Presidential Scholarship (merit based) **2018-2022**

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## Research Experience

**Brewer Lab, University of Washington Genome Sciences** **2022-2024**

Research Scientist/Engineer 1

**Characterizing Centromeric Replication Delays in the *mcm4<sup>chaos3</sup>* Replicative Helicase Allele**

- Constructed yeast strains by CRISPR and gene replacement for testing helicase mutation effects in varying genetic backgrounds
- Engineered chromosomal markers to test chromosome loss by fluctuation assay
- Profiled whole genome replication timing by single stranded assay
- Presented work at Pacific Northwest Research Club meeting, Cold Spring Harbor Eukaryotic DNA Replication meeting, FASEB Yeast Cell Cycle and Chromosome Biology meeting
- Mentored undergraduate students

**Undergraduate Mentor: Reducing rDNA copy number by CRISPR in a *fob1* background**

- Mentored undergraduate student independent research project using CRISPR to target yeast ribosomal DNA repeats.

**Katagiri Lab, University of Minnesota Plant and Microbial Biology** **2019-2022**

Undergraduate Researcher

**Ligand Engineering Project**

- Expressed tagged tomato receptors in *Nicotiana benthamiana* by agrobacterium mediated transformation for testing novel ligands designed by bioengineering graduate student collaborators
- Verified expression by western blot

- Classical genetics approaches to isolate phenotypes of interest

#### **Rice Pattern Triggered Immunity Project**

- Conducted reactive oxygen species assays in *Arabidopsis* and adapted method to rice
- Generated RT-qPCR data to measure transcription of pathogenesis related genes
- Developed tissue culture and hydroponic rice growth systems

#### **PAD4 Project**

- Conducted forward genetic screening for loss of characteristic response to pathogen elicitors in mutagenized populations of *Arabidopsis*
- PCR barcoding for sequencing to verify putative mutant lines

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## **Conferences and Presentations**

### **FASEB Yeast Cell Cycle and Chromosome Biology**

**June 2024**

Talk: Investigating the effects of *mcm4*<sup>Chaos3</sup> centromere replication delays on genome stability

### **Cold Spring Harbor Eukaryotic DNA Replication and Genome Maintenance**

**Sept 2023**

Poster: Does the *mcm4*<sup>Chaos3</sup> replicative helicase allele live up to its name?

### **Pacific Northwest Yeast Club**

**July 2023**

Talk: Does the *mcm4*<sup>Chaos3</sup> replicative helicase allele live up to its name?

### **University of Minnesota Undergraduate Research Symposium**

**April 2019**

Poster: Identification of Novel PAD4 Molecular Signaling Components in *Arabidopsis thaliana* Immunity Against *Pseudomonas syringae*

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## **Fellowships and Grants**

### **University of Minnesota Undergraduate Research Opportunity**

**2021**

Project title: Identification of Novel PAD4 Molecular Signaling Components in *Arabidopsis thaliana* Immunity Against *Pseudomonas syringae*

Status: Awarded

### **University of Minnesota Undergraduate Research Opportunity**

**2020**

Project title: Determining Rice Immune Network Resilience Using a Network Reconstitution Approach

Status: Awarded

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# Teaching Experience

## Biol4003: Genetics (online and in-person sections)

2021, 2022

### Professor Nathan Springer

- Provided in-lecture support to professor and students in a course with 100+ students
- Held weekly office hours
- Provided input on teaching strategies and utilization of technological resources in flipped classroom/fully online setting

## Biol400: Experiments in Molecular Biology

2024

### Professor Adam Steinbrenner

- Led lab sections independently

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# Service and Extracurricular

## University of Minnesota Men's Crew Coxswain

2018-2022

Student Leadership Board: Safety Officer and Fundraising Coordinator

2020-2022

Team Leadership Award

2022

American Collegiate Rowing Association (ACRA) All-Regional Plains Coxswain

2022

ACRA All-American Academic Team

2020-2022

## Outreach Event: Botany Bus

2021

➤ Assisted in planning and participation in plant research outreach event at Minneapolis K-4 school, in collaboration with Katagiri lab members and the UMN conservatory

## Summer Field Volunteer

2020

Shaw Lab, University of Minnesota

➤ Conducted field crosses of *Schizachyrium scoparium* to aid graduate student Wesley Braker in land management research on prairie restoration efforts using non-native ecotypes.

## Youth Conservation Corps

2018

Lake County, IL

➤ Youth crew member involved in seed collection, grounds maintenance, and restoration efforts in Lake County Forest Preserves.

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