

Ellyn Evans, Ph.D.

Visiting Assistant Professor of Biochemistry & Molecular Biology

The College of Wooster
Department of Biochemistry & Molecular Biology
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Career Objective: Maintain a career in higher education with involvement in science policy for climate change initiatives.

Education:

- Ph.D. 2022** *Biology (Molecular Biology & Plant Genetics Focus)*
Case Western Reserve University, Cleveland, OH
Advisor: Dr. Christopher Cullis
Dissertation: *Characterization of Linum usitatissimum (flax) Plasticity and Soil Microbiome Composition: Insights from Salt and Nutrient Stress*
- B.A. 2016** *Biochemistry & Molecular Biology*
The College of Wooster, Wooster, OH
Advisor: Dr. Melissa Mullen-Davis
Independent Study: *Characterization of Long Non-Coding RNA Expression During Low Temperature Stress in Arabidopsis thaliana*

Teaching Experience:

- 2022-Present** *VAP of Biochemistry & Molecular Biology, The College of Wooster*
- Principles of Biochemistry (Undergraduate, Fall 2022)
Gateway to Molecular & Cellular Biology Lecture (Undergraduate, Fall 2022)
Gateway to Molecular & Cellular Biology Lab (Undergraduate, Fall 2022)
- 2016-2022** *Graduate Teaching Assistant, Case Western Reserve University*
- Biotechnology Lab: Genetic Engineering (Undergraduate/Graduate, 4 Semesters)
Genetics Lecture (Undergraduate/Graduate, 1 Semester)
Cells & Proteins Lab (Undergraduate, 5 Semesters)
Genes, Evolution, & Ecology Lab (Undergraduate, 1 Semester)
Genes, Evolution, & Ecology Lecture (Undergraduate, 1 Semester)
- 2015-2016** *Undergraduate Lab Assistant, The College of Wooster*
- Principles of Chemistry II Lab (Undergraduate, 5 Semesters)

Gateway to Molecular & Cellular Biology Lab (1 Semester)

Mentorship Experience:

- 2018-2022** Case Western Reserve University
Research & Senior Capstone: Miles LaNicca
Current status: actively preparing medical school applications
and working as a medical assistant in Buffalo, NY
- 2020-2022** Case Western Reserve University
Research & Capstone: Daniella Dulworth
Current status: University of Chicago Law Student (Patent Law)

Research Experience:

- 2016-2022** Case Western Reserve University, Cleveland, OH
Department of Biology, Ph.D. Candidate
- 2015-2016** The College of Wooster, Wooster, OH
Independent Study Project
- 2015-2016** The Ohio State University (OARDC), Wooster, OH
Department of Plant Pathology & Virology
Advisor: Dr. Feng Qu
- Characterized viral resistance in crop plants using soybean as a model Organism to analyze plant anti-viral defenses and heritability
- 2014-2015** The Cleveland Clinic-Cole Eye Institute, Cleveland, OH
- Undergraduate research internship and shadowing with Dr. Rishi Singh, Pediatric Ocular Oncology

Fellowships, Honors, & Awards:

- 2022** Graduate Dean's Instructional Excellence Award, \$300
- 2022** Lenore A. Kola Graduate Student Community Service Award, \$1,000
- 2022** Weatherhead Executive Education Workshop Selected Attendee
Certification in Connecting, Motivating, & Understanding Others through Empathy
- 2022** Outstanding Student Organization Award-Center for International Affairs
Graduate Student Council for the College of Arts & Sciences for DEI Initiatives
- 2022** Climate Action Week Art & Multimedia Contest Awardee, \$50
- 2022, 2021** Joanne Westin Distinguished Graduate Teaching Award (Biology), \$250
- 2022** CWRU Annual Unity Banquet & Scholarship Event Representative
- 2022** Oglebay Foundation Travel Grant, \$1,500: Plant & Animal Genome Conference
San Diego, California
- 2018** Oglebay Foundation Travel Grant, \$1,500: NCGR Bioinformatics Workshop
Santa Fe, New Mexico
- 2018** Oglebay Foundation Travel Grant: \$1,500: ASBMB Annual Conference
- 2016** GAANN Fellowship: Graduate Assistance in Areas of National Need

2015 The Ohio State University, OARDC Summer Research Fellowship, \$3000

Committee Service:

2022 John. S. Diekhoff Award Selection Committee, CWRU
2021-2022 Copy-Editor, The Synapse-Intercollegiate STEM Magazine, CWRU
2020-2022 Founder & Developer: CWRU Graduate DEI Resource Website & App
2020-2022 Academic Integrity & Judicial Board Student Representative, CWRU
2020-2022 Disability Taskforce Member & Proposal Writer, CWRU
2020-2022 Racial Injustice Taskforce Member & Proposal Writer, CWRU
2018-2022 Department of Biology Graduate Student Council Executive Board, CWRU
2017-2022 Graduate Council of Arts & Sciences Executive Board, CWRU
2017-2022 Graduate Student Council Member, CWRU
2015-2016 Wooster Women in STEM Co-Founder, The College of Wooster

Community Service:

2019-2022 Michelson & Morley Seminar Contest Judge, CWRU
2019-2022 Mentorship Program & Networking Platform, The College of Wooster
2017-2022 SOURCE Research Symposium Application Reviewer
2017-2022 SOURCE Research Symposium Judge, CWRU

Outreach & Continuing Education:

2022 Northeast Ohio Science Olympiad Bio-Process Lab Supervisor
2022, 2021 AWIS: Career Fair & Networking Event for Women in STEM
2021 ASBMB: Creating an Inclusive Learning Environment Workshop
2021, 2020 Free the Ph.D. Career Design Summit
2018 NCGR Bioinformatics Workshop & Certification, INBRE of Santa Fe, NM

National Societies:

2020-Present ASPB (American Society of Plant Biologists)
2017-Present ASBMB (American Society for Biochemistry & Molecular Biology)
2015-Present AWIS (Association for Women in Science)

Oral Presentations:

2022 Case Western Reserve University, Department of Biology
Dissertation Seminar: *Characterization of Linum usitatissimum (flax) Plasticity and Soil Microbiome Composition: Insights from Salt and Nutrient Stress*

2022 Case Western Reserve University, Department of Biology
Annual Symposium: 5-minute Dissertation Lightening Talk
Linum Insertion Sequence 1: Friend or Foe?

- 2018** NCGR BioInformatics Workshop, Santa Fe, NM
Plant Abiotic Interactions: Fellow victims of High Salt Stress
- 2018** Case Western Reserve University, Department of Biology
Annual Symposium: *Salt Stress Adaptation in Bethune vs. Pl Flax Varieties*

Poster Presentations:

- 2022** Plant & Animal Genome Conference, San Diego, CA
Linum usitatissimum Genotype and Soil Microbiome Interactions of Four Flax Varieties
- 2021** American Society of Plant Biologists Conference (Virtual)
Characterization of Linum usitatissimum Plasticity During Salt Stress: Analysis of Bethune and Pl Flax to Generate Salt Tolerant Lines
- 2020** Case Western Reserve University Annual Symposium, Cleveland, OH
LIS-1 Induction under Nutrient vs. Salinity Stress: Implications for Tolerance Mechanisms
- 2018** American Society of Biochemistry & Molecular Biology Conference, San Diego, CA
Genomic Rearrangements in Linum usitatissimum under Salinity Stress
- 2016** The College of Wooster Independent Study Annual Symposium, Wooster, OH
Characterization of Long Non-Coding RNA Expression During Low Temperature Stress in Arabidopsis thaliana
- 2015** OARDC Undergraduate Summer Internship Symposium, Wooster, OH
Investigation of Soybean Anti-Viral Mechanisms Using RNAi

Publications:

Evans, E., Cullis, C.A. Rhizosphere microbial profiling and characterization of four *Linum usitatissimum* (flax) varieties under salt and nutrient stress (*submitted*)

Evans, E., Cullis, C.A. Transcriptomic Profiling of Four Flax Varieties under Salinity and Nutrient Stress.

Cullis, C.A., Evans, E. A Review of Flax Abiotic Stress & LIS- Induction

