

Elizabeth A. McDaniel

MICROBIOLOGY PHD STUDENT

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Education

University of Wisconsin-Madison

PHD STUDENT IN THE MICROBIOLOGY DOCTORAL TRAINING PROGRAM

- Laboratory of Dr. Katherine McMahon, Department of Bacteriology

Madison, WI

Aug. 2016-present

University of Arkansas

BACHELOR OF SCIENCE IN BIOLOGY WITH STATISTICS MINOR, CUM LAUDE HONORS

- GPA: 3.71/4.0

Fayetteville, AR

Aug. 2012-May 2016

Research Experience

McMahon Lab, University of Wisconsin-Madison

GRADUATE RESEARCH ASSISTANT

- Graduate research assistant in the laboratory of Dr. Katherine McMahon investigating bacterial communities in freshwater ecosystems and engineered wastewater systems.

Madison, WI

Jan. 2017 - present

Lewis Lab, University of Arkansas

UNDERGRADUATE RESEARCH ASSISTANT

- Undergraduate research assistant in the laboratory of Dr. Jeffrey Lewis studying the natural variation of stress defense mechanisms in the budding yeast *Saccharomyces cerevisiae*.

Fayetteville, AR

Aug. 2013-Aug. 2016

Broach Lab, Penn State Hershey College of Medicine

UNDERGRADUATE RESEARCH INTERN

- Intern in the Summer Undergraduate Research Internship Program in the laboratory of Dr. James Broach studying the interactions and movements of chromosomes during quiescence in the budding yeast *Saccharomyces cerevisiae*.

Hershey, PA

May-Aug. 2014

Presentations

6. **McDaniel, E.A.**, Stuecker, T.N., Elkon, I.M., Gasch, A.P., Lewis, J.A. Natural Variation in Yeast Uncovers Novel Regulation of the Ena1p Sodium Pump. Southeastern Regional Yeast Meeting. Tuscaloosa, AL. Mar. 2016. **Platform Talk.**
5. **McDaniel, E.A.**, Stuecker, T.N., Elkon, I.M., Gasch, A.P., Lewis, J.A. Natural Variation in Yeast Uncovers Novel Regulation of the Ena1p Sodium Pump. Arkansas IDeA Network of Biomedical Research Excellence Meeting. Fayetteville, AR. Nov. 2015. **Poster Presentation.**
4. **McDaniel, E.A.**, Stuecker, T.N., Elkon, I.M., Gasch, A.P., Lewis, J.A. Natural Variation in Yeast Uncovers Novel Regulation of the Ena1p Sodium Pump. 27th International Conference on Yeast Genetics and Molecular Biology. Levico Terme, Trentino, Italy. Sept. 2015. **Poster Presentation.**
3. **McDaniel, E.A.**, Stuecker, T.N., Elkon, I.M., Gasch, A.P., Lewis, J.A. Natural Variation in Yeast Uncovers Novel Regulation of the Ena1p Sodium Pump. Southeastern Regional Yeast Meeting. Little Rock, AR. Mar. 2015. **Platform Talk.**
2. **McDaniel, E.A.**, Stuecker, T.N., Elkon, I.M., Gasch, A.P., Lewis, J.A. Natural Variation in Yeast Uncovers Novel Regulation of the Ena1p Sodium Pump. South Central Branch of the American Society for Microbiology Joint Meeting. Fayetteville, AR. Sept. 2014. **Poster Presentation.**
1. **McDaniel, E.A.**, Rutledge, M.T., Broach, J.R. Chromosome Interactions in Quiescent Yeast. Penn State Hershey Summer Undergraduate Research Internship Programs Symposium. Hershey, PA. Aug. 2014. **Poster Presentation.**

Honors & Awards

2016	Travel Award , Southeastern Regional Yeast Meeting, \$250	Tuscaloosa, AL
2016	Honors College Research Grant , University of Arkansas Honors College, \$1200	Fayetteville, AR
2015	Honors College Travel Grant , University of Arkansas Honors College, \$1200	Fayetteville, AR
2015	Travel Award , Southeastern Regional Yeast Meeting, \$250	Little Rock, AR
2015	Honors College Research Grant , University of Arkansas Honors College, \$2500	Fayetteville, AR
2014-2015	University of Arkansas Academic Scholarship , University of Arkansas, \$2000	Fayetteville, AR
2014	2nd Place Poster Award , ASM South Central Branch Meeting	Fayetteville, AR
2013-2014	University of Arkansas Academic Scholarship , University of Arkansas, \$1000	Fayetteville, AR
2012-2016	University of Arkansas Symphony Orchestra Scholarship , University of Arkansas, \$1000 per year	Fayetteville, AR
2012-2016	University of Arkansas New Arkansan Non-Resident Tuition Award , University of Arkansas, \$39,040	Fayetteville, AR

Teaching, Mentoring, & Service

Microbiology 304: Biology of Microorganisms Laboratory

Madison, WI

TEACHING ASSISTANT

Spring 2018

- Prepared lecture materials on the background, significance, and execution of experiments twice a week.
- Assisted students with experiments and provided feedback on techniques and scientific analyses.

McMahon Lab Mentoring

Madison, WI

GRADUATE STUDENT MENTOR FOR REUS AND UNDERGRADUATE INTERNS

2017-present

- Graduate Student mentor for summer REU and Undergraduate Interns performing routine fieldwork and independent research projects in the McMahon lab.
- Kaela Amundson**: Characterization and Enrichment of External Electron Transfer Capable Microorganisms. Fall 2017-Spring 2018. Mentored Kaela through laboratory protocols, bioinformatic pipelines, graduate school applications, and a National Science Foundation Graduate Research Fellowship application.
- Matthew Wolff**: Investigation of Zebra Mussel eDNA in Lake Mendota Metagenomic Time-series Datasets. Spring 2018-current. Mentored Matthew through laboratory techniques and bioinformatic pipelines.
- Kali Denis**: Time-Series Analysis of Under-Ice Freshwater Bacterial Communities. Spring 2018-current. Mentored Kali through laboratory protocols, design and execution of an independent project, and preparation of a UW-Madison Sophomore Research Fellowship.

Computational Biology, Ecology, & Evolution (ComBEE) Study Group

Madison, WI

CO-CHAIR

Jan. 2017-present

- Organized peer-led discussions on the R and Python languages.
- Facilitated monthly meetings in which a postdoc/faculty member gives a talk on their research.
- Lead ComBEE hosted workshops on computational tools (Git/Anvi'o)

ComBEE Git/Github Pages Workshop

Madison, WI

WORKSHOP LEADER

Sept. 2017

- Prepared novel materials and taught version control with Git and making a personal website using Github Pages/Jekyll.
- Led a walkthrough tutorial to a group of 10 scientists on making a personal website with Github Pages.

ComBEE Anvi'o Workshop

Madison, WI

WORKSHOP ASSISTANT

May 2017

- Assisted during a ComBEE hosted workshop on the Anvi'o software.
- Guided participants through the interactive interface and metagenomic binning tutorials.
- Led an informal presentation and discussion on the theory of metagenomic binning.

BIOL 2323: General Genetics

Fayetteville, AR

DRILL INSTRUCTOR

Sp. 2015

- Instructor and leader of biweekly review sessions for an undergraduate General Genetics course.
- Prepared biweekly overviews of lecture materials and exam study guides.

University of Arkansas Office of Admissions

Fayetteville, AR

STUDENT AMBASSADOR

Fa. 2013-2015

- Volunteered 2 hours a week guiding tours of the University of Arkansas campus and housing options to prospective students.
- Wrote thank-you notes to the students and families that visited campus.

Professional Development

June 2017	Microbial Genomics and Metagenomics Workshop , FISABIO	<i>Valencia, Spain</i>
April 2017	Anvi'o Workshop , University of Chicago, Meren Lab	<i>Chicago, IL</i>
Jan. 2017	Data Carpentry Workshop , University Wisconsin-Madison	<i>Madison, WI</i>