

Rachel M Burckhardt

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Education

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| University of Georgia – Athens, GA | Graduate Research Assistant, Microbiology (2013-present) |
| Alma College – Alma, MI | Bachelor of Science, Biology (2009-2012) |

Research Experience

Research Assistant at the University of Georgia (June 2013-present)

- *Elucidate the physiological role of lysine acetylation in B. subtilis*

Research Student at Alma College (June 2009-December 2012)

- *Examine local sources of antibiotic resistance genes along an Alma drainage ditch*

REU Summer Researcher at the University of Georgia (June-July 2012)

- *Investigate genome stability mechanisms of N.crassa mutants*

REU Summer Researcher at Virginia Polytechnic State University (June-July 2011)

- *Survey the persistence of Shigella-toxin E.coli of a pasture based cow-calf cohort*

Oral Presentations

Rachel Burckhardt. *Role of Acetylation in Bacillus subtilis.* University of Georgia Student Seminar, Athens, GA. (2014)

Rachel Burckhardt and Timothy Keeton. *Characterization of Antibiotic Resistant E. coli from Gratiot County Field Drainages.* Alma College Honor's Day, Alma, MI. (2012)

Rachel Burckhardt, Robin Morrison, and Timothy Keeton. *Be Positive About Negative: Identifying Local Sources of Antibiotic Resistant Genes.* Alma College Honor's Day, Alma College, MI. (2011)

Rachel Burckhardt, Robin Morrison, and Timothy Keeton. *Identifying Local Sources of Antibiotic Resistant Genes.* Michigan Academy of Science Arts and Letters Annual Conference, Saginaw, MI (2011)

Posters

Rachel Burckhardt, Eric Montoye, and Timothy Keeton. *Determination of Antibiotic Resistance in E. coli Isolated from Mid-Michigan Streams Affected by Large Livestock Operations.* West Michigan Regional Undergraduate Science Research Conference, Grand Rapids, MI. (2012)

Rachel Burckhardt, Evelina Basenko, and Zack Lewis. *Identification and characterization of genome maintenance components in Neurospora crassa.* Research Experience for Undergraduate Symposium, Athens, GA. (2012)

Rachel Burckhardt, Robin Morrison, and Timothy Keeton. *Antibiotic Resistant E. coli in Sediments Affected by Confined Animal Feeding Operations.* West Michigan Regional Undergraduate Science Research Conference, Grand Rapids, MI. (2011)

Rachel Burckhardt, Shannon Glisan, Bryan Aviles, Chase Noel, W.S. Swecker, and Monica Ponder . *Persistence of Verocytotoxic E.coli in a Pasture Based Cow-calf Cohort.* Research Experience for Undergraduate Symposium, Blacksburg, VA. (2011)

Rachel Burckhardt, Robin Morrison, and Timothy Keeton. *Identifying Local Sources of Antibiotic Resistance Genes and Their Effects on Surrounding Microbial Populations.* West Michigan Regional Undergraduate Science Research Conference, Grand Rapids, MI. (2010)

Honors and Awards

Graduate School Assistantship awarded by UGA Graduate School (2013-2015)
Excellence in Graduate Recruitment Award from UGA Microbiology Department (2013)
Graduated *Summa cum laude* with Biology Departmental Honors (2013)
Barlow Trophy Finalist at Alma College (2013)

- Highest honor for top 3 graduating seniors who have impacted the campus and community

Member of Biology Honorary Beta Beta Beta
Member of National Leadership Honorary Omicron Delta Kappa
President's Cup for highest GPA at Alma College (2009-2012)
Dean's List at Alma College (2009-2012)
Alma College Trustee Honors Merit-based Scholarship (2009-2012)

Professional Development

Member of American Society for Microbiology (ASM) (2013-present)
Researcher Orientation and Ongoing Training Series Grant Writing Workshop (2013-2014)

Community Engagement

Georgia Science and Humanities Fair Judge (2015)
Bioenergy at UGA Outreach guide (2014)
College Bound Activity Mentor (2014)
Experience UGA Biology Program Mentor (2014-2015)
Colham Ferry Elementary School Science Fair Mentor (2014)
Clarke County School District Young Scientist Fair (2014-2015)
Clarke County Science Fair Judge (2014-2015)
Science Olympiad Region 15 Tournament Judge (2012)
Alma College Positive Routes in Science and Math class mentor (2010-2011)

Teaching Development

GRSC 7870S-Graduate Class about Service Learning Course Design (2015)
GRSC 7770-Graduate Class in University Teaching (2013)
STEM Institute on Teaching and Learning (2015)