

# J. JEFFREY MORRIS

## Curriculum Vitae

University of Alabama at Birmingham  
Department of Biology  
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Birmingham, AL 35294  
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### EDUCATION

2006-2011            Ph.D., University of Tennessee, Knoxville (Microbiology)  
2004-2006            B.S., Kennesaw State University (Biology), *summa cum laude*  
1992-1997            University of Alabama, Huntsville (Biology/Philosophy)

### PROFESSIONAL EXPERIENCE

**2022-Present**            **Associate Professor**  
Department of Biology  
University of Alabama at Birmingham

**2015-2021**            **Assistant Professor**  
Department of Biology  
University of Alabama in Birmingham

**2011-2014**            **Postdoctoral Fellow**  
Advisor: Dr. Richard E. Lenski  
Department of Microbiology and Molecular Genetics  
Michigan State University

**2006-2011**            **Graduate Research/Teaching Assistant**  
Advisor: Dr. Erik R. Zinser  
Department of Microbiology  
University of Tennessee, Knoxville

**2005-2006**            **Independent Undergraduate Research**  
Research Advisor: Dr. Joseph M. Dirnberger  
Department of Biology and Physics  
Kennesaw State University

**1993-1996**            **Independent Undergraduate Research**  
Research Advisor: Dr. Ronald B. Young  
Department of Biological Sciences  
University of Alabama, Huntsville

**PEER-REVIEWED PUBLICATIONS**

**2676 total citations, h-index = 18** (as of 2 February 2023, according to Google Scholar)

**\* indicates corresponding authorship; mentee authors underlined**

1. \***Goswami, Anuradha**, Sarah J. Adkins-Jablonsky, Marcelo M. Barreto Filho, Michelle D. Schilling, Alex Dawson, Sabrina Heiser, Aisha O'Connor, Melissa Walker, Outia Roberts, and **J. Jeffrey Morris**. 2023. Heavy metal pollution impacts soil bacterial community structure and antimicrobial resistance at the Birmingham 35th Avenue Superfund Site. *Microbiology Spectrum* 10.1128/spectrum.02426-22.
2. \***Barreto Filho, Marcelo M.**, Zhiying Lu, Melissa Walker, and **J. Jeffrey Morris**. 2022. Community context and pCO<sub>2</sub> impact the transcriptome of the “helper” bacterium *Alteromonas* in co-culture with picocyanobacteria. *ISME Communications* 2: 113.
3. **Barreto Filho, Marcelo M.**, Helena H. Vieira, **J. Jeffrey Morris**, and Inessa L. Bagatini. 2022. Species-specific effects and the ecological role of programmed cell death in the microalgae *Ankistrodesmus* (Sphaeropleales, Selenastraceae). *Biology Letters* 18: 20220259.
4. Vijyan, Vineeth M, Melissa Walker, R.R. Pillai, G.H. Moreno, Yogesh K. Vohra, **J. Jeffrey Morris**, and Vinoy Thomas. 2022. Plasma Electroless Reduction: A green process for designing metallic nanostructure interfaces onto polymeric surfaces and 3D scaffolds. *ACS Applied Materials & Interfaces* 14: 25065-25079.
5. \***Morris, J. Jeffrey**, Andrew L. Rose, and Zhiying Lu. 2022. Reactive oxygen species in the World Ocean and their impacts on marine ecosystems. *Redox Biology* 52:102285.
6. Vijayan, Vineeth M., Melissa Walker, **J. Jeffrey Morris**, and Vinoy Thomas. 2022. Recent mitigation strategies in engineered health care materials towards antimicrobial applications. *Current Opinion in Biomedical Engineering* 22: 100377.
7. \***Adkins-Jablonsky, Sarah J.**, Colleen M. Clark, Spiridon E. Papoulis, Matthew D. Kuhl, and **J. Jeffrey Morris**. 2021. Market forces determine the distribution of a leaky function in a simple microbial community. *Proceedings of the National Academies of Science USA* 118:e2109813118
8. \***Adkins-Jablonsky, Sarah J.**, Erin Arnold, Rachel Rock, Rosianna Gray, and **J. Jeffrey Morris**. 2021. Agar art: A CURE for the microbiology laboratory. *Journal of Microbiology and Biology Education* e00121-21.
9. \***Barreto Filho, Marcelo Malisano**, Melissa Walker, Matt P Ashworth, and **J. Jeffrey Morris**. 2021. Structure and long-term stability of the microbiome in diverse diatom cultures. *Microbiology Spectrum* 1:e00269-21. Data archive <https://www.bco-dmo.org/dataset/855750>
10. **Adkins-Jablonsky, Sarah J.**, Justin F. Shaffer, **J. Jeffrey Morris**, Ben England, and Samiksha Raut. 2021. A tale of two institutions: Analyzing the impact of gamified student response systems on student anxiety in two different introductory biology courses. *CBE Life Sciences Education* 20:ar19.
11. **Adkins-Jablonsky, Sarah J.**, Ryleigh Fleming, Marco Esteban, Diana Bucio, **J. Jeffrey Morris**, and Samiksha Raut. 2021. Impacts of a COVID-19 E-service-learning module in a non-major biology course. *Journal of Microbiology and Biology Education* 22: <https://doi.org/10.1128/jmbe.v22i1.2489>.
12. \* **Knights, M.**, and **JJ MORRIS**. 2020. Co-culture with *Synechococcus* facilitates growth of *Prochlorococcus* under ocean acidification conditions. *Environmental Microbiology* 22: 4876-4889.

13. \* **Adkins-Jablonsky, SJ, R Akscyn**, B Bennett, **Q Roberts**, and **JJ MORRIS**. 2020. Is community relevance enough? Civic and science identity impact of microbiology CUREs focused on community environmental justice. *Frontiers in Microbiology*: 578520.
14. Mendoza, DA, **SJ Adkins**, JM Bhatt, **JJ MORRIS**, and SA Raut. 2020. Service-learning curriculum increases climate change awareness. *Science Education and Civic Engagement* 12:18-29.
15. **Adkins-Jablonsky, SJ**, R Fleming, M Esteban, D Bucio, **JJ MORRIS**, and SA Raut. For COVID-19 and beyond: impacts of an E-service-learning module in a nonmajors biology course. In revision at *Journal of Microbiology and Biology Education*.
16. \* **Adkins-Jablonsky, SJ**, E Arnold, R Gray, **RK Rock**, and **JJ MORRIS**. Agar art: a CURE for the microbiology laboratory. Submitted to *Journal of Microbiology and Biology Education*.
17. Jagdish, T, **JJ MORRIS**, BD Wade, and ZD Blount. 2020. Probing the deep genetic basis of a novel trait in *Escherichia coli*. *Evolution in Action: Past, Present and Future: A Festschrift in Honor of Erik D. Goodman*. Ed. W Banzhaf, BH Cheng, K Deb, KE Holekamp, RE Lenski, C Ofria, RT Pennock, WF Punch, and DJ Whittaker. Springer: 107-122.
18. \* **MORRIS, JJ**. 2018. What is the hologenome concept of evolution? *F1000 Research* 1664.
19. **Entwistle, EM**, KL Romanowicz, WA Argiroff, ZB Freedman, **JJ MORRIS**, and DR Zak. 2018. Anthropogenic N deposition alters the composition of expressed class II fungal peroxidases. *Applied and Environmental Microbiology* 84:e02816-17
20. \* **Adkins, SJ, RK Rock**, and **JJ MORRIS**. 2018. Interdisciplinary STEM education reform: Dishing out art in a microbiology laboratory. *FEMS Microbiology Letters* 365:fnx245
21. Ma, L, **JJ MORRIS**, ZI Johnson, and ER Zinser. 2018. Degradation of hydrogen peroxide at the ocean's surface: The influence of the microbial community on the realized thermal niche of *Prochlorococcus*. *ISME Journal* 12:473-484.
22. Hennon, GMM, **JJ MORRIS**, ST Haley, ER Zinser, **AR Durrant**, **E Entwistle**, T Dokland, and ST Dyhrman. 2018. The impact of elevated CO<sub>2</sub> on *Prochlorococcus* and microbial interactions with the 'helper' bacterium *Alteromonas*. *ISME Journal* 12:520-531.
23. \* **MORRIS, JJ**, and Eric Schniter. 2017. Black Queen markets: Commensalism, dependency, and the evolution of cooperative specialization in human society. *Journal of Bioeconomics* 20:69-105
24. \* Ashworth, MP, and **JJ MORRIS**. 2016. Axenic microalgal cultures overlook the complexity of the phycosphere marketplace. *Perspectives in Phycology* 3(2): 107-111.
25. Estrela, S, B Kerr, and **JJ MORRIS**. 2016. Transitions in individuality through symbiosis. *Current Opinion in Microbiology* 31: 191-198
26. **MORRIS, JJ**, ZI Johnson, SW Wilhelm, and ER Zinser. 2016. Diel regulation of hydrogen peroxide defenses by open ocean microbial communities. *Journal of Plankton Research* 38: 1103-1114
27. Lenski, RE, MJ Wisner, N Ribeck, ZD Blount, JR Nahum, **JJ MORRIS**, L Zaman, CB Turner, BD Wade, R Maddamsetti, AR Burmeister, EJ Baird, J Bundy, NA Grant, KJ Card, M Rowles, K Weatherspoon, **SE Papoulis**, **R Sullivan**, **C Clark**, JS Mulka, and N Hajela. 2015. Sustained fitness gains and variability in fitness trajectories in the long-term evolution experiment with *Escherichia coli*. *Proceedings of the Royal Society B* 282:1821
28. Estrela, S, **JJ MORRIS**, and B Kerr. 2015. Private benefits and metabolic conflicts shape the emergence of microbial interdependencies. *Environmental Microbiology* 18:1415-1427

29. Dutkiewicz, S, **JJ MORRIS**, MJ Follows, J Scott, O Levitan, ST Dyhrman, and I Berman-Frank. 2015. Impact of ocean acidification on the structure of future phytoplankton communities. *Nature Climate Change* 5:1002-1006
- Media coverage: *Christian Science Monitor*, *Rolling Stone*
30. \* **MORRIS, JJ**. 2015. Black Queen Evolution: The role of leakiness in structuring microbial communities. *Trends In Genetics* 31: 475-482.
31. Mackey, KRM, **JJ MORRIS**, FMM Morel, and SA Kranz. 2015. Response of photosynthesis to ocean acidification. *Oceanography* 28: 22-39.
32. \* **MORRIS, JJ**, **SE Papoulis**, and RE Lenski. 2014. Coexistence of evolving bacteria stabilized by a shared Black Queen function. *Evolution* 68: 2960-2971.
33. \* **MORRIS, JJ**, and LR Hmelo. 2014. Organizing principles for marine microbial consortia. PF Kemp [ed.]. *Eco-DAS IX Symposium Proceedings*. Waco, TX: Association for the Science of Limnology and Oceanography.
34. Brum, JR, **JJ MORRIS**, M Décima, and MR Stukel. 2014. Mortality in the ocean: causes and consequences. PF Kemp [ed.]. *Eco-DAS IX Symposium Proceedings*. Waco, TX: Association for the Science of Limnology and Oceanography.
35. **MORRIS, JJ**, and ER Zinser. 2013. Continuous hydrogen peroxide production by organic buffers in phytoplankton culture media. *Journal of Phycology* 49: 1223-1228
36. \* **MORRIS, JJ**, RE Lenski, and ER Zinser. 2012. The Black Queen Hypothesis: evolution of dependencies through adaptive gene loss. *mBio* 3: e0036-12.
- Sustained impact: over 390 citations as of July 2019
  - Media coverage: *Microbe* magazine, *New Scientist*, io9.com, Huffington Post, and dozens of blogs
  - Featured on the front page at NSF.gov
  - Highlighted by *mBio* in a commentary piece (Sachs, JL, and AC Hollowell. 2012. The origins of cooperative bacterial communities. *mBio* 3: e00099-12.)
  - “Editor’s Pick” from *mBio* volume 3, issue 2.
  - Featured as a full-page article in the 14<sup>th</sup> edition of *Brock Biology of Microorganisms*
37. **MORRIS, JJ**, ZI Johnson, MJ Szul, M Keller, and ER Zinser. 2011. Dependence of the cyanobacterium *Prochlorococcus* on hydrogen peroxide scavenging microbes for growth at the ocean’s surface. *PLoS ONE* 6(2): e16805.
38. **MORRIS, JJ**, R Kirkegaard, MJ Szul, ZI Johnson, and ER Zinser. 2008. Robust growth of *Prochlorococcus* colonies and dilute liquid cultures: facilitation by “helper” heterotrophic bacteria. *Applied and Environmental Microbiology* 74(14): 4530-4534.

## CURRICULA

**MORRIS JJ** and **SJ Adkins**. *The Art of Microbiology: A Laboratory Manual*. Published online via CURENet and Github, currently in use in at least 4 universities and colleges

## SOFTWARE

**KEGGUR**: a perl application for assembling user-friendly, "good-enough" databases for analyzing particular functional genes in large short-read metagenomic datasets.  
<https://github.com/syntherzukul/KEGGUR>

**SCIENCE BLOGGING**

- "Are All Stresses Oxidative Stresses?", *Small Things Considered*, 15 July 2019, artwork by **Sarah Adkins**, <https://schaechter.asmblog.org/schaechter/2019/07/are-all-stresses-oxidative-stresses.html>
- "The art of microbiology", with **Sarah Adkins** and **Rachel Rock**, *OUPblog*, 8 April 2018 <https://blog.oup.com/2018/04/art-of-microbiology/>
- "Predators, Parasites, and Piggyback Rides", *Small Things Considered*, 1 August 2016 <https://schaechter.asmblog.org/schaechter/2016/08/parasites-predators-and-piggyback-rides.html>
- "Sex and Evolution, Vibrio Style", *Small Things Considered*, 4 October 2015, artwork by **Sarah Adkins**, <http://schaechter.asmblog.org/schaechter/2015/10/sex-and-evolution-vibrioem-style.html>
- "The Invisible Hand of Evolution", *BEACON Center Blog*, 28 July 2014 <http://beacon-center.org/blog/2014/07/28/beacon-researchers-at-work-the-invisible-hand-of-evolution/>
- "The Evolution of Simplicity and the Black Queen Hypothesis", *BEACON Center Blog*, 21 May 2012 <http://beacon-center.org/blog/2012/05/21/beacon-researchers-at-work-the-evolution-of-simplicity-and-the-black-queen-hypothesis/>
- "A Black Queen in a Blue Ocean", *Huffington Post*, 2 May 2012 [http://www.huffingtonpost.com/jeff-morris/black-queen-hypothesis\\_b\\_1471250.html](http://www.huffingtonpost.com/jeff-morris/black-queen-hypothesis_b_1471250.html)

**OTHER PUBLICATIONS**

- MORRIS, JJ.** 2020. Overcoming classroom skepticism with evolution in action. *Evolution in Action: Past, Present and Future: A Festschrift in Honor of Erik D. Goodman*. Ed. W Banzhaf, BH Cheng, K Deb, KE Holekamp, RE Lenski, C Ofria, RT Pennock, WF Punch, and DJ Whittaker. Springer: 491-498.
- Adkins, Sarah** and **JJ MORRIS**. 2018. STEAM: BioArt as a Canvas For Discovery. *SciArt Magazine* 32 <https://www.sciartmagazine.com/steam-bioart-as-a-canvas-for-discovery.html>
- Price, PB, **JJ MORRIS**, RC Bay, A Adhikari, SJ Giovannoni, and KL Vergin. 2015. Molecular fossils from microorganisms preserved in glacial ice. *bioRxiv* doi 10.1101/019240.
- MORRIS, JJ.** 2014. Book Review: *Stress Biology of Cyanobacteria*. *Journal of Phycology* 50: 770.

**EXTRAMURAL FUNDING****Total funding: \$3,918,521**

- 2023-2027      **NSF OCE-2304067**, \$761,415 to UAB  
“Collaborative Research: RUI: Extracellular vesicles as vehicles for microbial interactions in marine Black Queen communities”  
Steven Biller, Lead PI  
**JJ Morris**, Co-PI
- 2019-2023      **NSF OCE-1851085**, \$1,200,014; \$516,439 to UAB  
"Collaborative Research: Ecology and evolution of microbial interactions in a changing ocean"  
**JJ Morris**, Lead PI  
Gwenn M.M. Hennon and Sonya T. Dyhrman, Co-PIs
- 2019-2022      **Simons Foundation Early Career Investigator in Marine Microbial Ecology and Evolution**, \$620,000  
"Microbial social networking: co-evolution of bacteria and algae in a changing ocean"
- 2018-2023      **NSF RCN-UBE-1826988**, \$497,614  
"The ROSE Network: Improving Research Inclusivity through a Grassroots Culture of Scientific Teaching"  
**JJ Morris**, Lead PI  
Samiksha Raut, Jeffrey T Olimpo, and Trent Sutton Co-PIs
- 2013-2019      **NSF OCE-1540158 NSF Ocean Acidification**, \$1,433,467; \$274,345 to UAB  
“Collaborative Research: Ocean Acidification: Impacts of evolution on the response of phytoplankton populations to rising CO<sub>2</sub>”  
**J. J. Morris**, Lead PI  
Richard E. Lenski, Michael Follows, and Sonya Dyhrman, Co-PIs
- 2013-2015      **NASA Astrobiology Institute Postdoctoral Fellowship**, ~\$120,000  
“Black Queen Evolution of Nitrogen Fixation and its Impact on the Archaeal Biosphere”  
Advisor Richard E. Lenski
- 2014-2015      **NSF BEACON Grant**, \$59,653  
“Investigation of the Black Queen Hypothesis: Genomic, Physiological, and Theoretical Approaches”  
**J. J. Morris**, Lead PI  
Richard E. Lenski, Benjamin Kerr, and Robert Newman, Co-PIs

- 2013-2014            **NSF BEACON Grant, \$66,773**  
 “Investigation of the Black Queen Hypothesis: Mathematical and Experimental Approaches”  
**J. J. Morris**, Lead PI  
 Richard E. Lenski, and Benjamin Kerr, Co-PIs
- 2009                    **Grant-in-aid**, Phycological Society of America, \$1,000

### INTRAMURAL FUNDING

- 2023                    **CAS Interdisciplinry Award, \$30,000**  
 “Alternative antimicrobials and ecology of therapeutic treatment”  
**JJ Morris**, Lead PI  
 Vinoy Thomas, Co-PI
- 2019                    **CAS Interdisciplinary Award, \$30,000**  
 "Antibiotic Resistant Bacteria in Heavy Metal Impacted Soils: A One-Two Punch For North Birmingham Residents?"  
**JJ Morris**, Lead PI  
 Veena Antony, Kevin Drace, and Brad Bennett, Co-PIs
- 2017                    **Quality Enhancement Program**, Center for Teaching and Learning;  
 \$3500  
 "Drawing with Bacteria: A new collaborative scientific inquiry model"

### RESEARCH CRUISES

#### Personal participation (Total 88 days at sea):

- 2009                    R/V *Cape Hatteras*, Sargasso Sea  
 2008                    R/V *New Horizon*, DCM08, Subtropical Eastern Pacific  
 2007                    CCGS *Limnos*, MELEE XII, Lake Erie  
 2007                    R/V *Hugh R. Sharp*, AB1, Chesapeake Bay  
 2007                    R/V *Kilo Moana*, WP2, Hawai'i to Australia transect  
 2006                    R/V *Kilo Moana*, KM0629, North Pacific Subtropical Gyre

#### Laboratory participation:

- 2018                    R/V *Atlantis*, TriCoLim, Tropical Atlantic  
 2016                    R/V *Pelican*, CLaSiC 2016, Gulf of Mexico  
 2015                    R/V *E.O. Wilson*, Gulf of Mexico

### SCHOLARSHIPS AND AWARDS

- 2014                    **ECO-DAS Reunion** travel award  
 2010                    **ECO-DAS IX** seminar participant, Honolulu, Hawai'i  
 2010                    **Harold C. Bold Award**, \$1000, Phycological Society of America  
 2010                    **Science Alliance Award**, \$2000, University of Tennessee  
 2010                    **Hoshaw Travel Award**, Phycological Society of America

2009	<b>Hoshaw Travel Award</b> , Phycological Society of America
2008	<b>David C. White Travel Award</b> , University of Tennessee
2008	<b><i>Prochlorococcus</i>fest</b> Travel Award
2007	<b>Best Student Presentation</b> , Southeastern Phycological Colloquy, Dauphin Island, Alabama
2006	<b>Phi Kappa Phi</b> honor society
1992	<b>Presidential Scholarship</b> , University of Alabama, Huntsville
1991	<b>National Merit Finalist</b>

## PROFESSIONAL DEVELOPMENT

2017	QEP Retreat, Birmingham, AL
2014	NESCent Experimental Evolution Workshop, Durham, NC
2014	<i>mothur</i> Workshop, Detroit MI
2013	Scientific Teaching/Active Learning seminar participant, MSU

## PROFESSIONAL SOCIETIES

2005-present	<b>Phycological Society of America</b>
	2007-2009 Student Representative, Education Committee
	2009-2011 Student Representative, Elections Committee
	2011-2014 Elections Committee
	2016-2022 Communications Committee, Chair
	2016-2022 Member, Executive Committee
2007-present	<b>American Society for Microbiology</b>
	2016-2020 Faculty sponsor, UAB ASM Chapter
2007-present	<b>Association for the Sciences of Limnology and Oceanography</b>
2018-present	<b>Sigma Xi</b>
2015-present	<b>Alabama Academy of Science</b>
	2022-2023 President, Executive Committee Member
2017-present	<b>Heterodox Academy</b>
2016-present	<b>Faculty of 1000</b>

## UNIVERSITY SERVICE

2022-Present	CAS Academic Integrity Board
2022-Present	Faculty Mentor, UAB Young Americans for Freedom
2022-Present	Steering Committee, UAB Cryo-Electron Microscopy Facility
2016-Present	Steering Committee, UAB Center for Free Radical Biology
2018-Present	Biology Department Darwin Day committee (Chair since 2020)
2020-Present	Biology Department Undergraduate Curriculum Committee
2017-2020	Biology Department Seminar committee
2016-2020	Faculty Mentor, UAB Chapter of the ASM Southeastern Branch
2017-2019	Alternate Senator, Faculty Senate
2017-2018	Faculty Senate Curriculum Committee
2018-2019	Faculty Senate Faculty Policies and Procedures Committee



2016-2017 UAB Culture of Safety Taskforce  
 2016 Ecology/Evolution Faculty Search Committee  
 2016-2017 UAB Darwin Day 2017 organizer  
 2015-2017 Host for seminar speakers  
 Spring 2015: Andrew Lang, Lehigh University  
 Spring 2016: Jennifer DeBruyn, University of Tennessee  
 Spring 2017: Seth Bordenstein, Vanderbilt  
 Fall 2017: Kelly Dorgan, Dauphin Island Sea Lab  
 Spring 2018: Sara Brownell, Arizona State University  
 Fall 2018: Terje Dokland and Rakesh Patel, UAB  
 Fall 2019: Xilin Zhao, Rutgers University  
 Spring 2020: Jennifer Brum, Louisiana State University  
 Fall 2021: Valeria Souza, UNAM  
 Spring 2022: Julia Diaz, Scripps Institute of Oceanography  
 2017-2023 Director, ROSE Network

### **JOURNAL REVIEWS (2008-present, 93 total)**

Verified Record at <https://www.webofscience.com/wos/author/record/1737169>

*ISME Journal* (15), *PLoS ONE* (9), *Applied and Environmental Microbiology* (8), *Frontiers in Microbiology* (6), *Environmental Microbiology* (5), *Ecology Letters* (4), *Evolution* (4), *Proceedings of the Royal Society B: Biological Sciences* (4), *mSystems* (4), *Limnology and Oceanography* (3), *Nature Ecology and Evolution* (3), *PNAS* (3), *BMC Evolutionary Biology* (2), *Biological Reviews* (2), *Environmental Microbiology Reports* (2), *Journal of Molecular Biology* (2), *Nature Communications* (2), *Antonie van Leeuwenhoek* (1), *Biology Letters* (1), *FEMS Microbiology Letters* (1), *Frontiers in Genetics* (1), *Frontiers in Marine Science* (1), *ICES Journal of Marine Science* (1), *ISME Communications* (1), *iScience* (1), *Journal of Bioeconomics* (1), *Journal of the World Aquaculture Society* (1), *Microbiome* (1), *Nature Microbiology* (1), *Oecologia* (1), *Scientific Reports* (1), *eLife* (1)

### **PROPOSAL REVIEWS (2014-present)**

National Science Foundation *ad hoc* reviews: 3  
 National Science Foundation Panel: June 2015, December 2016, June 2020  
 NSERC *ad hoc* reviews: 1  
 DAAD *ad hoc* reviews: 1  
 BBSRC *ad hoc* reviews: 1  
 FWO *ad hoc*: 1  
 ISF *ad hoc* reviews: 1  
 Marsden Fund *ad hoc* reviews: 2  
 GCAR *ad hoc* reviews: 1

**SEMINAR AND POSTER PRESENTATIONS****INVITED PRESENTATIONS**

- 2022 *ProSynFest*, Cordoba, Spain  
 2021 University of Rhode Island, Providence, RI  
 2020 UAB Biology Department, Birmingham, AL  
 2019 Duke University Marine Lab, Beaufort, NC  
 2019 Panel Speaker, "The Science of Science Fiction", Alabama ComicCon, Birmingham, AL  
 2019 Birmingham Astronomical Society, Samford University, Birmingham, AL  
 2018 Plenary Speaker, OCB Summer Meeting, Woods Hole, MA  
 2018 Agar Art Panel, ASM Microbe, Atlanta, GA  
 2018 University of Tennessee Knoxville Microbiology Seminar, Knoxville, TN  
 2018 BEACON Congress, East Lansing, MI  
 2017 League of Women Voters Climate Change Series, Mobile, AL  
 2017 Psychological Society of America Annual Meeting, Plenary Speaker, Monterey, CA  
 2017 University of Mississippi Biology Seminar, Oxford, MS  
 2016 Center for Free Radical Biology and Medicine, UAB, Birmingham, AL  
 2016 BEACON Congress, East Lansing, MI  
 2015 Seminar Speaker, UAB Microbiology Department, Birmingham, AL  
 2015 University of Edinburgh, Edinburgh, UK  
 2015 Royal Society Kavli Center, Milton Keynes, UK  
 2015 Kennesaw State University Biology Seminar Series, Kennesaw, GA  
 2015 Dauphin Island Sea Lab, Mobile, AL  
 2014 USC Department of Oceanography Seminar, Los Angeles, CA  
 2013 MBI Workshop 2: Rapid Evolution and Sustainability, Columbus, OH

**CONTRIBUTED ORAL PRESENTATIONS**

- 2022 Alabama Academy of Science Annual Meeting, Athens, AL  
 2020 Tennessee STEM Education Conference, Crossville, TN  
 2019 Southeastern Phycological Colloquy, Birmingham, AL  
 2019 Society for the Advancement of Biology Education Research (SABER), Minneapolis, MN  
 2016 Southeastern Phycological Colloquy, Valdosta, GA  
 2016 ASLO Aquatic Sciences Meeting, Santa Fe, NM  
 2015 Psychological Society of America Annual Meeting, Philadelphia, PA  
 2014 Joint Aquatic Sciences Meeting, Portland, OR  
 2013 Molecular Genetics of Bacteria and Phages, Madison, WI  
 2013 Society for the Study of Evolution Annual Meeting, Snowbird, UT  
 2012 Phycological Society of America Annual Meeting, Charleston, SC  
 2011 Phycological Society of America Annual Meeting, Seattle, WA  
 2011 ASM General Meeting, New Orleans, LA  
 2010 Psychological Society of America Annual Meeting, East Lansing, MI  
 2008 Psychological Society of America Annual Meeting, New Orleans, LA  
 2007 Southeastern Phycological Colloquy, Dauphin Island, AL

**POSTERS**

2015	Ocean Acidification PI Meeting, Woods Hole, MA
2014	EMBO Experimental Evolution, Heidelberg, Germany
2014	Gordon Conference (Ocean Global Change Biology), Waterville Valley, NH
2012	BEACON Congress, East Lansing, MI
2012	ASM General Meeting, San Francisco, CA
2011	BEACON Congress, East Lansing, MI
2011	Gordon Conference (Microbial Population Biology), Andover, NH
2009	Phycological Society of American Annual Meeting, Honolulu, HI
2008	ASM General Meeting, Boston, MA
2008	<i>Prochlorococcus</i> fest, Cambridge, MA
2007	Phycological Society of America Annual Meeting, Providence, RI

**LABORATORY PUBLIC TEACHING OUTREACH**

2019	Girls, Inc (a United States 501 nonprofit organization) (4 visits)
2019	John Herbert Phillips Academy IB World Class School of Excellence (2 visits)
2019	Jefferson State Community College (3 visits)
2018	The Lovelady Center, Science Mentoring Program (2 visits)
2017-2018	CORD Hot Science Summer Program (4 visits/week)
2017	A. H. Parker High School (3 visits)
2017	Islamic Academy of Alabama High School (3 visits)
2017-2018	UAB Child Development Center (3 visits)
2016	McWane Science Museum, Teens for Tech Night (1 visit)
2015	"Mentor for a day" for Chicago high school student at AbSciCon meeting
2013-2014	Volunteer judge at Ingham County State Fair science competition

**TEACHING/MENTORING EXPERIENCE****\* Indicates new course prep****Assistant Professor (University of Alabama at Birmingham)**

Spring 2023	BY429/491/629 Introduction to Evolution
Spring 2023	BY698 Colloquium in Microbial Ecology
Fall 2022	BY 405/605 Microbial Physiology
Spring 2022	BY429/491/629 Introduction to Evolution
Fall 2021	BY429/491/629 Introduction to Evolution
Fall 2021	BY607 Microbial Ecology
Spring 2021	BY271/271L Biology of Microorganisms
Fall 2020	BY429/491/629 Introduction to Evolution
Spring 2020	BY271/271L Biology of Microorganisms and Laboratory Orchestrated transition to all-online teaching, including creation of a laboratory module focused on literature research and scientific writing.
Fall 2019	BY407/607 Microbial Ecology* Part of a multi-university CURE (Course-based Undergraduate Research Experience) in collaboration with Samford University, Birmingham Southern College, and the UAB School of Medicine
Summer 2019	Guest Lecturer, BY101
Summer 2019	BY271/271L Biology of Microorganisms and Laboratory
Spring 2019	BY429/491/629 Introduction to Evolution
Spring/Fall 2018	Guest Lecturer, BY101
Fall 2018	BY405/605 Microbial Physiology*
Summer 2018	BY271/271L Biology of Microorganisms and Laboratory
Fall 2017	BY271/271L Biology of Microorganisms and Laboratory
Summer 2017	Directed readings in microbial sociobiology
Summer 2017	BY271/271L Biology of Microorganisms and Laboratory
Spring 2017	BY271/271L Biology of Microorganisms and Laboratory* Designed as a CURE built around agar art. The course design and materials have been deposited online and have been adopted by at least 3 other instructors at different colleges/universities.
Fall 2016	BY429/491/629 Introduction to Evolution
Summer 2016	Directed readings in experimental design and statistics
Spring 2016	BY271/271L Biology of Microorganisms and Laboratory
Spring 2015	BY271 Biology of Microorganisms*

**Graduate Committee Service**

2022-present	Hannah Oswalt, C. Amsler Lab
2021-present	Christel Whitehead, P. Biga Lab
2020	Guest examiner, Andrew Ndhlovu PhD Defense, University of the Witwatersrand, Johannesburg, South Africa, Pierre Durrant Lab
2019	Guest examiner, Marcelo Malisano Barreto Filho M.S. Defense, Universidade Federal de São Carlos, Brazil, Inessa Lacativa Lab
2017-2021	Ben Calfee, University of Tennessee, ER Zinser Lab
2016-2020	Spiridon Papoulis, University of Tennessee, ER Zinser Lab

2015-2016 Brenna Terry, K. Mukhtar Lab  
2015-2016 Jessica Lopez, S. Mukhtar Lab

**Postdoctoral (Michigan State University)**

2011 Guest Lecturer, MMG 803 (Topics in Integrative Microbiology):  
Cooperation and cheating in microbial populations

**Graduate (University of Tennessee)**

2009-2010 Teaching Assistant, Advanced Microbiology Laboratory\*  
2006-2008 Teaching Assistant, Introductory Microbiology Laboratory Micro319  
2008 Guest Lecturer, Microbial Physiology: Photosynthesis  
2007 Teaching Assistant, Microbiology Laboratory for non-majors Micro219  
2008-2009 Managed joint research project between University of Tennessee and a  
rural high school Scientific Research Course (Lincoln County High  
School, Tennessee)

**MENTORED STUDENTS AND POSTDOCS**

*\* indicates co-author on published or submitted manuscript*

**Postdocs (6 total, 1 current): Elizabeth Entwistle\*** (2016-2019); **Robert Aksecyn\*** (2019-2020); **Keri Kemp** (2019); **Penny Carroll\*** (2019-2021, currently Assistant Professor at University of Connecticut); **Zhiying Lu\*** (2019-2022 ); **Anuradha Goswami\*** (2020- )

**Graduate Students (11 total, 5 current): Sarah Adkins-Jablonsky\*** (PhD, 2016-2021); **Julian Jackson** (MS, 2017-2019); **Melissa Walker\*** (PhD, 2018- ); **Matthew Kuhl\*** (MS, 2019-2021); **Marcelo Malisano Barreto Filho\*** (PhD, 2020- ); **Jake Cantrell** (MS, 2020-2021); **Angie Bradley** (MS, 2020-2021); **Amber Richardson** (MS, 2022- ); **Maryam Ashraf** (PhD, 2022, did not complete program), **Kellen Cowen** (MS, 2022- ), **Tony Dunn** (MS, 2022- )

**Undergraduate Students (41 total, 7 current): Isabella Parkhurst** (2021- ); **Vivian Adams** (2022); **Amber Mayse** (2022- ); **Mikyla Scott** (2022); **Halee Stewart** (2022- ); **Kayli Morrison** (2022- ); **Alexandra Sheeran** (2022); **Vangie Barley** (2022); **Zane Forbus** (2021- ); **Be'La Fowler** (2021- ); **Saleh Aljalal** (2021- ); **Eunice Delgado** (2022); **Mason Anderson** (2021- 2022); **Qutia Roberts\*** (2018-2021); **Leica Barnhardt** (2019-2022); **Justin Jones** (2019-2020); **Meghan Letson** (2018-2019); **Zeenia Punjani** (2018-2019); **L. Paige Bramblett** (2017-2018); **Matthew Kuhl\*** (2018-2019); **Rachel Rock\*** (2015-2019); **Elliot Greene** (2017-2018); **Joey Johnson** (2017); **Joseph Thornton** (2017); **Charlie Keith** (2016); **Christina Cooley** (2016-2018); **Malik Bothwell** (2016); **Sarah Adkins\*** (2015-2016); **Lakshmi Subramani** (2015); **Erica Turner** (2015); **Jessica Jimenez** (2014); **Ellyse Cipolla** (2013); **Grace Scarsella** (2012); **Spiridon Papoulis\*** (2012-2014, defended PhD in 2020 at University of Tennessee); **Robert Fillingner** (2013-2014, currently PhD student at Ohio State University); **Colleen Clark\*** (2013-2014); **Ruchira Ramani** (2011); **Matt Williams** (2011); **Martin Szul\*** (2008-2010); **Josh Rucker** (2007); **Elizabeth Coultas** (2008-2010)

**High School Students (5 total): Margaret Knight\*** (2016-2017); **Bela Patel** (2016-2017); **Virgil Shepherd** (2015); **Julie Liu** (2012); **Marissa Connelly** (2008)

**STUDENT/POSTDOC ACCOMPLISHMENTS****Zhiying Lu (Postdoc 2019- )**

2020                      **Phycological Society of America Annual Meeting**, Lightning Talk, Virtual Meeting  
2019                      **Southeastern Phycological Colloquy**, Oral Presentation, Birmingham, AL

**Penny Carroll (Postdoc 2019- )**

2020                      **SABER Meeting**, Poster Presentation, Virtual Meeting

**Elizabeth Entwistle (Postdoc, 2016-2019)**

2018                      **ASM Microbe**, Poster and Oral Presentation, Atlanta, GA  
2017                      **UAB Center for Free Radical Biology Regional Meeting**, Poster Presentation, Birmingham, AL

**Sarah Adkins-Jablonsky (PhD Student, 2016-2021)**

- 2020 **Sigma Xi Honor Society**
- 2020 **SABER Meeting**, Poster Presentation, Virtual Meeting
- 2020 **Discoveries in the Making**, Invited Talk, Birmingham, AL
- 2020 **Agar Art Workshop**, ASM Southeastern Branch Conference, Huntsville, AL
- 2020 **ASM Southeastern Branch Conference**, Poster Presentation, Huntsville, AL
- 2020 **ASM Southeastern Branch Travel Award**, \$100
- 2020 **Sigma Xi Diversity Grant**, \$986
- 2019-2020 **President**, UAB Chapter of the ASM Southeastern Branch
- 2019 **Chair, STEM Education Committee**, Alabama Academy of Science
- 2019 **CIRTL Forum Travel Award**, \$500
- 2019 **ASM Student Chapter Funding**, \$400
- 2019 **Gordon Research Conference on Undergraduate Biology Education**, Poster Presentation and Discussion Leader, Lewiston, ME
- 2019 **Gordon Research Conference fee waiver**, \$1490
- 2019 **ASCB COMPASS Outreach Grant**, \$1000
- 2019 **SSE Small Grants Program for Local and Regional Outreach Promoting the Understanding of Evolutionary Biology**, \$500
- 2019 **UAB National Alumni Society Dean's Scholarship**, \$500
- 2019 **Phi Sigma Travel Grant**, \$400
- 2019 **UAB Graduate Student Government Travel Grant**, \$400
- 2019 **Alabama Academy of Sciences**, Oral Presentation, Tuskegee, AL  
Outstanding Winner in STEM Education, \$60
- 2019 **Alabama Academy of Sciences Travel Award**, \$71
- 2019 **Daniel Jones Excellence in Graduate Studies Award**, \$2,000
- 2019 **Discoveries in the Making**, Invited Talk, Birmingham, AL
- 2019 **CIRTL All-Network Presentation**, Invited Talk, remote participation
- 2019 **BioHack Academy**, Invited Talk, Waag Academy, Amsterdam, Netherlands (remote participation)
- 2019 **SciArt Livestream**, hosted by Gaius J. Augustus
- 2019 **Discoveries Behind the Scenes**, UAB Graduate School livestream
- 2019 **Keynote Speech, Teaching As Research Project**, PDP@UAB Certificate Ceremony
- 2018 **ASM Outstanding Abstract Award**, \$200
- 2018 **ASM Travel Grant**, \$500
- 2018 **ASMCUE**, Poster Presentation, Austin, TX
- 2018 **ASM Microbe**, Poster Presentation and Oral Presentation, Atlanta, GA
- 2018 **Harold Martin Outstanding Student Development Award**, \$2000
- 2018 **Same Parts**, biology-themed art exhibition, Ground Floor Contemporary studio, Birmingham, AL
- 2018 **CORD Hot Science Program**, Keynote Speaker, Birmingham, AL
- 2018 **Discoveries in the Making**, Invited Talk, Birmingham, AL
- 2018 **Phi Sigma Biological Honor Society**
- 2017-2018 **Vice-President**, UAB Chapter of the ASM Southeastern Branch

- 2017 **SABER Meeting**, Roundtable Discussion Leader, Minneapolis, MN
- 2017 **Arts and Initiative Social Good at UAB**, \$1000
- 2017 **NSF Graduate Research Fellowship**, \$138,000
- 2017 **UAB Psychology Department Study Away** scholarship, \$1,000
- 2017 **ASM Microbe**, Poster Presentation, New Orleans, LA
- 2017 **Athens State University**, Invited Talk
- 2017 **UAB Darwin Day Expo**, Poster Presentation, 1st place winner
- 2017 **Alabama Academy of Sciences**, Oral Presentation, Mobile, AL  
1st place in STEM Education Award
- 2017 **Phi Kappa Phi Honor Society**
- 2016 **Alabama Academy of Sciences**, Poster Presentation, Florence, AL
- 2016 **UAB CIRTL** scholarship, \$1,418
- 2016-2017 **UAB Graduate School Individual Fellowship Incentive Plan**, \$1500

#### **Melissa Walker (PhD Student, 2018- )**

- 2020 **Molecular Ecology Podcast** presenter
- 2020 **Sigma Xi Diversity Grant**, \$986
- 2020 **ASM Southeastern Branch Travel Award**, \$100
- 2020 **ASM Southeastern Branch Annual Meeting**, Huntsville, AL, Oral Presentation
- 2019 **Southeastern Phycological Colloquy**, Birmingham, AL, Oral Presentation
- 2019 **NSF Graduate Research Fellowship**, \$138,000
- 2019 **Phycological Society of America Annual Meeting**, Poster Presentation, Fort Lauderdale, FL
- 2019 **Biology Department Travel Award**
- 2018 **Southeastern Phycological Colloquy**, Oral Presentation, Jacksonville, FL

#### **Matthew Kuhl (MS Student 2018- )**

- 2019 **Southeastern Phycological Colloquy**, Birmingham, AL, Oral Presentation

#### **Julian Jackson (MS Student 2017-2019)**

- Currently enrolled in Oral Health Sciences program at Boston University
- 2019 **Sigma Xi Honor Society**
- 2018-2019 **UAB Chapter of the Southeastern ASM Branch**, Vice President
- 2018 ***Same Parts***, biology-themed art exhibition, Ground Floor Contemporary studio, Birmingham, AL
- 2017 **UAB Darwin Day Expo**, Poster Presentation
- 2016-2019 **Parker High School Robotics Team**, leader

#### **Rachel Rock (Undergraduate mentee, 2015-2019)**

- Currently enrolled in MS program at University of Edinburgh, UK
- 2019 **Athens State Mini-Symposium**, Oral Presentation, Athens, AL
- 2019 **Alabama Academy of Sciences**, Oral Presentation, Tuskegee, AL  
1st place in STEM Education



- 2019 **Alabama Academy of Sciences Student Travel Award**  
 2018 **Alabama Academy of Sciences Research Grant, \$250**  
 2017 **Crawford T. and Virginia Johnson Presidential Scholarship, \$1,000**  
 2017 **Ken R. Marion Endowed Scholarship, \$2,000**  
 2017 **Biology Department Scholarship, \$316**  
 2017 **UAB Center for Free Radical Biology Regional Meeting, Poster Presentation, Birmingham, AL**  
 2016-2017 **Sci-Tech Honors Research Stipend, \$1,500**  
 2016 **UAB Undergraduate Research Expo, 1st place in Service Learning**

#### **Zeenia Punjani (Undergraduate mentee, 2018-2019)**

Currently adjunct professor at Jefferson State Community College

- 2019 **Alabama Academy of Sciences, Poster Presentation, Tuskegee, AL**  
 2019 **Alabama Academy of Sciences Student Travel Award**  
 2020 **MS in Integrative Anatomical Sciences, University of Southern California**

#### **Margaret Knight (High School intern, 2016-2017)**

Currently studying Marine Science at Louisiana State University

- 2017 **Central Alabama Regional Science and Engineering Fair, Poster Presentation, Birmingham, AL; 1st in division, won a 5-day family trip to Disneyworld**  
 2017 **Alabama Science and Engineering Fair, Poster Presentation 3rd place in Environmental and Earth Science category; also won four special prizes (Boeing "Best Scientific Achievement", NOAA "Best of Show: Taking the Pulse of the Planet Award", The Stockholm Junior Water Prize "Senior Outstanding Project", and the NASA Earth System Science Award)**

#### **Spiridon Papoulis (Undergraduate mentee, 2012-2014)**

Currently employed at Kalliope, NYC

- 2020 **PhD in Microbiology, University of Tennessee**  
 2015 **AbSciCon, Oral Presentation, Chicago, IL**  
 2014 **ASM General Meeting, Poster Presentation, Boston, MA**  
 2014 **ASM Student Travel Award**  
 2014 **REU scholarship for summer research at University of Tennessee**  
 2013 **BEACON Congress, Poster Presentation, East Lansing, MI**  
 2013 **UURAF Poster Competition, Poster Presentation, East Lansing, MI**

#### **Other Students**

- 2015 Colleen Clark, **UURAF Poster Competition, Poster Presentation, East Lansing, MI**  
 2014 RJ Fillinger, **UURAF Poster Competition, Poster Presentation, East Lansing, MI**