

# Katelyn M. Cooper

Assistant Professor  
School of Life Sciences  
Arizona State University

## **APPOINTMENTS**

**Assistant Professor, School of Life Sciences, Arizona State University, Aug. 2020 – present**

**Visiting Scholar, Department of Medical Social Sciences, Feinberg School of Medicine, Northwestern University, Summer 2024**

**Assistant Professor, Department of Biology, University of Central Florida, Aug. 2019 – Aug. 2020**

**Postdoctoral Scholar in Biology Education, Arizona State University, May 2018 – Aug. 2019**

## **EDUCATION**

**Arizona State University, Tempe, AZ (2015 – 2018)**

Ph.D. in Biology, May 2018

Concentration: Undergraduate Biology Education

**Northern Arizona University, Flagstaff, AZ (2013 – 2014)**

Master of Education, With Distinction, May 2014

**University of Arizona College of Medicine-Phoenix, Phoenix, AZ (2011 – 2012)**

First year of medical school coursework

**Arizona State University, Tempe, AZ (2006 – 2010)**

B.S. in Biochemistry, Magna Cum Laude, May 2010

## **GRANTS**

### **National awards:**

*In progress:*

**NSF CAREER: Identifying Aspects of Research that Exacerbate Undergraduate and Graduate Student Depression and Developing Interventions to Improve Student Mental Health (2022 – 2027)**

- This project proposes to use an exploratory sequential mixed methods design to examine the relationship between scientific research and depressive symptoms among undergraduate and graduate students in the life sciences. Additionally, the project will develop and evaluate single-session interventions to help undergraduate and graduate students cope with aspects of scientific research that can exacerbate depressive symptoms. \$985,868 was awarded in March of 2022. Cooper is single PI.

**NSF STEM Education Postdoctoral Research Fellowship (STEM Ed IPRF): When Failure isn't Fatal: Developing and testing a repository of scientist failures on graduate student mental health (2024 – 2026)**

- Cooper is the sponsoring research mentor for this project that proposes to build on lab research that identified failure as a primary aspect exacerbating depression among graduate students. The project entails developing Fail Safe Science, a repository of scientists discussing common failures they encountered during graduate school and conducting a qualitative interview study

to assess the impact of the repository on graduate students with depression. \$318,762 awarded in 2024. Postdoc Davis is single PI.

**NSF IUSE Collaborative Research: Using a Self-Guided Online Intervention to Address Student Fear of Negative Evaluation in Active Learning Undergraduate Biology Courses (2022 – 2025)**

- This collaborative grant between ASU and clinical psychologist at Northwestern University (Dr. Jessica Schleider) was awarded to develop a single-session intervention to help undergraduates cope with fear of negative evaluation in the context of active learning science courses. \$300,000 total funding (\$130,214 to ASU) was awarded in December of 2021. Cooper is PI.

**NSF IUSE: Developing a bioinformatics Course-based Undergraduate Research Experience for online students (2021-2024).**

- This grant was awarded to develop and assess a bioinformatics CURE to serve students enrolled in the ASU online B.S. in Biological Sciences program. \$300,000 funded March 2021. Cooper is Co-PI (PI: Melissa Wilson).

**NSF IUSE: Exploring the Effect of Shared Identities Between Instructors and Students in the Undergraduate Biology Classroom (2021-2024).**

- This grant assesses the impacts on students when biology instructors share their LGBTQ+ identities in the context of college biology classrooms. Specifically, the project examines the impact on students' sense of belonging and science identities for both LGBTQ+ students and those with other concealable stigmatized identities. \$300,000 total funded February 2021. Cooper is PI.

**NSF RCN-UBE Incubator: Undergraduate Learning Environments in Biology (2020-2024).**

- This grant brings together biology education researchers, psychiatrists, psychologists, and student support specialists to identify sources of anxiety in active-learning biology classrooms, design interventions to help lessen student anxiety, and to spur new research related to student anxiety in this unique context. \$74,319 total funded August 2020. Cooper is PI.

*Completed:*

**NSF INCLUDES Planning Grant: Developing a Shared Vision for Engaging Persons with Disabilities in Science and Engineering (2020-2021).**

- This planning award is to develop a shared vision for classrooms that engage persons with disabilities in science and engineering. \$100,000 total funded. Cooper is Co-PI (PI: Kristen Parrish).

*Trainee nationally funded grants to carry out research in the lab*

- 2024 Olivia Davis, NSF STEM IPRF, \$318,762
- 2023 Tasneem Mohammed, NSF GRFP, \$147,000
- 2023 Jynx Pigart, NSF GRFP, \$147,000
- 2023 Nicholas Wiesenthal, NSF GRFP, \$147,000
- 2022 Carly Busch, NSF GRFP, \$147,000
- 2019 Logan Gin, NSF Graduate Research Fellowship (GRFP), \$147,000

## **Institutional awards:**

*Completed:*

### **Arizona State University AI Innovation Challenge (2024)**

- The Cooper lab was awarded 4 licenses for ChatGPT Enterprise to test the ability for ChatGPT to code qualitative data. Cooper is PI.

### **Arizona State University Natural Sciences DEI Seed Grant (2023-2024)**

- This grant was awarded to create and run an Out in STEM (oSTEM) Southwest Regional Conference and help meet the needs of LGBTQ+ students at ASU. \$7,458 total funding was awarded in January of 2023. Cooper is co-PI (PI: Sara Brownell).

*Completed:*

### **Arizona State University College of Liberal Arts and Sciences Online Undergraduate Research Scholars (OURS) Program Group-based Research Experience Seed Grant (2021/2022, 2022/2023)**

- This grant was awarded in 2021 and renewed for 2022 after promising student feedback and OURS assessment. The grant was provided to develop a course-based undergraduate research experience (CURE) in biology education for 25 students in the School of Life Sciences online bachelor's degree program. \$20,000 total funding was awarded to develop/teach courses in spring 22 and spring 23. Cooper is PI.

### **Arizona State University College of Liberal Arts and Sciences Online Undergraduate Research Scholars (OURS) Program Group-based Research Experience Seed Grant (2022)**

- This grant was awarded to develop a course-based undergraduate research experience in genomics students in the School of Life Sciences online bachelor's program. \$10,000 total funding was awarded in February of 2022. Cooper is co-PI (PI: Melissa Wilson).

### **University of Central Florida Interdisciplinary Team Building Award (2019).**

- This grant was awarded to develop a Center for STEM Discipline-Based Education Research (DBER) at the University of Central Florida. \$40,000 total funded December 2019. Cooper is Co-PI (PI: Jacqueline Chini).

### **Arizona State University Lincoln Center for Applied Ethics Grant (2015).**

- This grant was awarded to establish the unwritten rules of undergraduate research. \$7000 funded in 2015. Cooper is Co-PI (PI: Sara Brownell).

## **PUBLICATIONS**

**66 total publications:** The standards of the biology education research field are that the senior lead author is the last author of the publication, and the first author is the trainee or person who conducted the majority of the research. I have 64 peer reviewed publications, 1 book chapter, and 1 teaching article; 25 first-author or co-first-author publications, 32 senior author or co-senior author publications, and 8 papers resulting from science education course-based undergraduate research experiences (CUREs) that I have taught. Corresponding authorships are underlined, co-authorships are designated with #, students that I have trained are designated with \*, and students who conducted research as part of a science education CURE that I have taught are designated with ^. h-index = 29 | i10-index = 42.

## **Peer Reviewed Journal Articles**

64. Busch CA\*. Wiesenthal NJ\*. Gin LE\*. **Cooper KM**. Behind the graduate mental health crisis in science. In press as a Career Feature at Nature Biotechnology.
63. Jackson D. Yule K. Biera A. Hawley C. Lacson J. Webb E. McGraw K. **Cooper KM**. “Broadening Perspectives Activities” improve both LGBTQ+ student experiences and non-LGBTQ+ student’ content comprehension. In press at CBE Life Sciences Education.  
<https://www.lifescied.org/doi/10.1187/cbe.24-02-0052>
62. Mohammed TF. Doud N. Brownell SE#. **Cooper KM**#. The upside to depression: Undergraduates benefit from an instructor revealing depression in a large-enrollment physiology course. Advances in Physiology Education. (#These authors contributed equally).  
<https://pubmed.ncbi.nlm.nih.gov/39454033/>
61. Goodwin E. **Cooper KM**. Gin LE\*. Brownell SE. [Addressing the need to facilitate undergraduate research experiences for community college transfer students in science](#). Journal of Microbiology and Biology Education.
60. Edwards BA. Kolodisner J. Youngblood J. **Cooper KM**. Brownell SE. [Students respond positively to an instructor collecting and sharing aggregated class demographic data from a survey in a high-enrollment physiology course](#). Advances in Physiology Education.
59. Maas SA#. Wiesenthal NJ#\*. Brownell SE&. **Cooper KM**&. Disrupting the master narrative in academic biology as LGBTQ+ Ph.D. students: learning, teaching, and conducting research. CBE Life Sciences Education (#these authors contributed equally &these authors contributed equally).  
<https://www.lifescied.org/doi/10.1187/cbe.24-02-0058>
58. Plaisier SB. Alarid DO. Brownell SE. Buetow K. **Cooper KM**. Wilson MA. [Design and implementation of an asynchronous online course-based undergraduate research experience \(CURE\) in computation genomics](#). PLOS Computational Biology.
57. Pigart CJ\*. MacKinnon DP. **Cooper KM**. Academic social comparison: A promising new target to reduce fear of negative evaluation in large-enrollment college science courses. International Journal of STEM Education. <https://stemeducationjournal.springeropen.com/articles/10.1186/s40594-024-00501-7>

## **Commentary**

Harrod G. (2024). [Why women and LGBTQ+ students face greater challenges in college science classrooms](#). *ASU News*.

56. Mohammed TF\*, Aini R. Barnes ME, **Cooper KM**. Toward Culturally Responsive Mentoring of Muslim Researchers in the Sciences. CBE Life Sciences Education.  
<https://www.lifescied.org/doi/10.1187/cbe.23-07-0145>
55. Busch CA\*, Nadile EM\*, Mohammed TF\*, Gin LE\*, Brownell SE, **Cooper KM**. The scientific rules, roles, and values that life sciences graduate students want to see upheld by undergraduate researchers. Journal of Research and Science Teaching.  
<https://onlinelibrary.wiley.com/doi/full/10.1002/tea.21965>

54. Goodwin E, Gin LE\*, Aeshliman A, Afoakwa A, Allred B, Avalle S, Bell A, Berheimer J, Brzezinski H, Campos R, Emerson H, Hess S, Montelongo A, Noshirwani N, Shelton W, Valdez E, White J, White Q, Wittekind E, **Cooper KM**, Brownell SE. Who is represented in the research on undergraduate research experiences in the natural sciences. *CBE Life Sciences Education*. May 2024. <https://www.lifescied.org/doi/10.1187/cbe.23-07-0137>

53. Busch CA\*, Bhanderi PB\*, **Cooper KM**<sup>#</sup>, Brownell SE<sup>#</sup>. Few LGBTQ+ science and engineering instructors come out to students, despite potential benefits. *CBE Life Sciences Education*. April 2024. <sup>#</sup>These authors contributed equally. <https://www.lifescied.org/doi/10.1187/cbe.23-10-0181>

52. Busch CA\*, **Cooper KM**<sup>#</sup>, Brownell SE<sup>#</sup>. Beyond gender and race: Representation of hidden identities among college science instructors. *CBE Life Sciences Education*. April 2024. <sup>#</sup>These authors contributed equally. <https://doi.org/10.1187/cbe.23-09-0170>

### Commentary

McCartney M. (2024). [Concealed identities as a diversity level](#). *Science*.

Harrod G. (2024). [ASU professors explore benefits of sharing 'hidden identities' in the classroom](#). *ASU News*.

Supiano.B (2024). [Teaching: An overlooked way professors can be role models](#). *The Chronicle of Higher Education*.

51. Ghosh A, Cohen KA, Jans L, Busch CA\*, McDanal R, Yang Y, **Cooper KM**, Schleider JM. A digital single-session intervention (Project Engage) to address fear of negative evaluation among college students: a pilot randomized controlled trial. *Journal of Medical Internet Research (JMIR) Mental Health*. Nov. 2023. <https://mental.jmir.org/2023/1/e48926>

50. Busch CA\*, **Cooper KM**<sup>#</sup>, Brownell SE<sup>#</sup>. Women drive efforts to highlight concealable stigmatized identities in U.S. academic science and engineering. *PLoS One*. July 2023. <sup>#</sup>These authors contributed equally. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10355415/>

### Commentary

Dutta Gupta T. (2023). [Women are more likely than men to share personal details when teaching](#). *Science Careers*.

Tropiano D. (2023). [Study looks at sharing stigmatized identities in academic STEM settings](#). *ASU News*.

Public Library of Science (2023). [STEM instructors who are women drive disclosure of concealable stigmatized identities to undergraduates](#). *Phys Org*.

Basken P. (2023). [Female faculty aid US students with confidences](#). *Times Higher Education*

49. Busch CA\*<sup>#</sup>, Wiesenthal NJ\*<sup>#</sup>, Mohammed TF\*<sup>#</sup>, Anderson S<sup>^&</sup>, Barstow M<sup>^&</sup>, Custalow C<sup>^&</sup>, Gajewski J<sup>^&</sup>, Garcia K<sup>^&</sup>, Gilbert C<sup>^&</sup>, Hughes J<sup>^&</sup>, Jenkins A<sup>^&</sup>, Johnson M<sup>^&</sup>, Kasper C<sup>^&</sup>, Perez I<sup>^&</sup>, Robnett B<sup>^&</sup>, Tillett K<sup>^&</sup>, Tsefrekas L<sup>^&</sup>, Goodwin EC, **Cooper KM**. The disproportionate impact of fear of negative evaluation first-generation students, LGBTQ+ students, and students with disabilities

in college science courses. CBE Life Sciences Education. June 2023. #These authors contributed equally &These authors contributed equally. <https://www.lifescied.org/doi/10.1187/cbe.22-10-0195>

### Commentary

LaNoue M. (2023). [Time zones not an issue for ASU Online undergraduates in research program. OURS makes traditional research available to all.](#) ASU News.

48. Wiesenthal NJ\*, Gin LE\*, **Cooper KM**. Face negotiation in graduate school: The decision to conceal or reveal depression among life sciences Ph.D. students in the United States. International Journal of STEM Education. May 2023. <https://rdcu.be/dcnWG>

47. Araghi T\*#, Busch CA\*#, **Cooper KM**. The aspects of active learning science courses that exacerbate and alleviate depression in undergraduates. CBE Life Sciences Education. &These authors contributed equally. April 2023. <https://www.lifescied.org/doi/10.1187/cbe.22-10-0199>

### Commentary

Perkins D. (2023). [ASU study finds active learning can alleviate depression for undergraduates.](#) ASU News

46. **Cooper KM**, Eddy SL, Brownell SE. Research anxiety predicts undergraduates' intentions to pursue scientific research careers. CBE Life Sciences Education. Jan. 2023. <https://www.lifescied.org/doi/10.1187/cbe.22-02-0022>

45. Busch CA\*^, Mohammed TF\*^#, Nadile EM\*^#, Witt ML^&, Vargas C^&, Tran M^&, Gazing Wolf J^&, Brister D^&, **Cooper KM**. Costs and benefits of undergraduates revealing depression to online science instructors. CBE Life Sciences Education. #These authors contributed equally. &These authors contributed equally. Jan. 2023. <https://www.lifescied.org/doi/10.1187/cbe.22-05-0088>

44. Abraham AE\*, Busch CA\*, Brownell SE, **Cooper KM**. Should I write about mental health on my med school app? Examining medical school admissions committee member biases regarding mental health conditions. Advances in Physiology Education. Sept. 2022. <https://journals.physiology.org/doi/epdf/10.1152/advan.00094.2022>

43. Busch CA\*, Mohammed TF\*, Nadile EM, **Cooper KM**. Aspects of online college science courses that alleviate and exacerbate undergraduate depression. PLoS One. June 2022. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0269201>

42. Busch CA\*, Supriya K, Brownell SE#, **Cooper KM**#. Unveiling concealable stigmatized identities in class: The impact of an instructor revealing her LGBTQ+ identity to students in a large-enrollment biology course. CBE Life Sciences Education. June 2022. #These senior authors contributed equally. <https://www.lifescied.org/doi/10.1187/cbe.21-06-0162>

### Commentary

The Society of Integrative & Comparative Biology. (2022). [The importance of being earnest: Engaging with student-teacher identities improves classroom experience.](#) *Newswise*.

Whitby, L. (2022). [Study indicates perceived impact of STEM instructor revealing her LGBTQ+ identity to students.](#) ASU News.

Compton, J. (2022). [PRIDE 30: The New Generation](#). *NBC News*.

41. Gin LE, Pais DA, **Cooper KM**<sup>#</sup>, Brownell SE<sup>#</sup>. Students with disabilities in undergraduate research: Challenges and opportunities. *CBE Life Sciences Education*. June 2022. <sup>#</sup>These senior authors contributed equally. <https://www.lifescied.org/doi/10.1187/cbe.21-07-0196>

*Highlighted by CBE LSE*

40. Gin LE\*, Pais, DA\*, Parrish K, Brownell SE, **Cooper KM**. New online accommodations are not enough: The mismatch between student needs and supports given for students with disabilities during the COVID-19 pandemic. *Journal of Microbiology and Biology Education*. March 2022. <https://journals.asm.org/doi/epub/10.1128/jmbe.00280-21>

*Highlighted as an editor's pick of the Opportunities and Challenges of Online Instruction special issue.*

39. Abraham A\*, Busch CA\*, Brownell SE<sup>#</sup>, **Cooper KM**<sup>#</sup>. Instructor perceptions of student incivility in the online undergraduate science classroom. *Journal of Microbiology and Biology Education*. March 2022. <sup>#</sup>These authors contributed equally. <https://journals.asm.org/doi/pdf/10.1128/jmbe.00271-21>

38. Mohammed TM\*, Gin LE\*, Wiesenthal NJ\*, **Cooper KM**. The experiences of undergraduates with depression in online science learning environments. *CBE Life Sciences Education*. March 2022. <https://www.lifescied.org/doi/10.1187/cbe.21-09-0228>

### **Commentary**

Prud'homme-Genereux, A. (2022). [Many undergraduates are depressed. Online instructors can help](#). *ASBMB Today*.

37. Mohammed TF\*<sup>#^</sup>, Nadile EM\*<sup>#^</sup>, Busch CA\*<sup>#^</sup>, Brister D<sup>&^</sup>, Claiborne CT<sup>&^</sup>, Edwards BA<sup>&^</sup>, Gazing Wolf J<sup>&^</sup>, Lunt C<sup>&^</sup>, Tran M<sup>&^</sup>, Vargas C<sup>&^</sup>, Walker KM<sup>&^</sup>, Warkina TD<sup>&^</sup>, Witt ML<sup>&^</sup>, Brownell SE, Zheng Y, **Cooper KM**. Aspects of large-enrollment online college science courses that exacerbate and alleviate student anxiety. *CBE Life Sciences Education*. Nov. 2021. <sup>#</sup>These first authors contributed equally. <sup>&</sup>These authors contributed equally. <https://www.lifescied.org/doi/10.1187/cbe.21-05-0132>

36. Supriya K, Mead C, Anbar A, Caulkins JL, Collins JP, **Cooper KM**, Lepore PC, Lewis T, Pate A, Scott RA, Brownell SE. Undergraduate biology students received higher grades during COVID-19 but perceived negative effects on learning. *Frontiers in Higher Education*. Oct. 2021. [https://www.frontiersin.org/articles/10.3389/feduc.2021.759624/full?&utm\\_source=Email\\_to\\_authors&utm\\_medium=Email&utm\\_content=T1\\_11.5e1\\_author&utm\\_campaign=Email\\_publication&field=&journalName=Frontiers\\_in\\_Education&id=759624](https://www.frontiersin.org/articles/10.3389/feduc.2021.759624/full?&utm_source=Email_to_authors&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers_in_Education&id=759624)

35. Yannier N, Hudson SE, Koedinger KR, Hirsh-Pasek K, Michnick Golinkoff R, Munakata Y, Doebel S, Schwartz DL, Deslauriers L, McCarty L, Callaghan K, Theobald EJ, Freeman S, **Cooper KM**, Brownell SE. Instructor decisions and student anxiety in *Active learning: "Hands-on" meets "minds-on"*. *Science*. Sept. 2021. <https://www.science.org/doi/abs/10.1126/science.abj9957>

*Article is in the top 5% of all research outputs ever tracked by Altmetric*

## Commentary

Morrison, N. (2021). Put Children In The Driving Seat Of Their Own Learning For Better Results. *Forbes*.

Silezar J. (2021). 'Active learning' helps students learn better by engaging them physically. *The Harvard Gazette*

Article was highlighted in dozens of other news outlets including *U.S. News, Times Higher Education*, and *MSN*

34. Gin LE\*, Clark CE<sup>^</sup>, Elliott DB<sup>^</sup>, Roderick TB<sup>^</sup>, Scott RA<sup>^</sup>, Arellano D<sup>^</sup>, Ramirez D<sup>^</sup>, Vargas C<sup>^</sup>, Velarde K<sup>^</sup>, Aeschliman A<sup>^</sup>, Avalle ST<sup>^</sup>, Berkheimer J<sup>^</sup>, Campos R<sup>^</sup>, Gerbasi M<sup>^</sup>, Hughes S<sup>^</sup>, Roberts JA<sup>^</sup>, White QM<sup>^</sup>, Wittekind E<sup>^</sup>, Zheng Y, **Cooper KM**<sup>#</sup>, Brownell SE<sup>#</sup>. An exploration across institution types of undergraduate life sciences student decisions to stay in or leave an academic-year research experience. *CBE Life Sciences Education*. Aug. 2021. <sup>#</sup>These senior authors contributed equally. <https://www.lifescied.org/doi/10.1187/cbe.21-04-0108>.

33. Turner AN, Challa AK, **Cooper KM**. Student perceptions of authoring a publication stemming from a course-based undergraduate research experience (CURE). *CBE Life Sciences Education*. Aug. 2021. <https://www.lifescied.org/doi/pdf/10.1187/cbe.21-02-0051>

32. Gin LE<sup>#</sup>, Wiesenthal NJ<sup>#</sup>, Ferreira I\*, **Cooper KM**. Ph.D. Depression: Examining how graduate research and teaching affect depression in life sciences Ph.D. students. *CBE Life Sciences Education*. July 2021. <sup>#</sup>These authors contributed equally. <https://www.lifescied.org/doi/10.1187/cbe.21-03-0077>

## Commentary

Woolston C. (2022). [\*Stress and uncertainty drag down graduate students' satisfaction\*](#). *Nature*.

Langin K. (2021). [\*This lab asked depressed Ph.D. students what's hardest- and what parts of grad school help them cope\*](#). *Science Magazine*.

31. Nadile EM\*, Williams KD<sup>^&</sup>, Wiesenthal NJ<sup>^&\*</sup>, Stahlhut KN<sup>^&</sup>, Sinda KA<sup>^&</sup>, Sellas CF<sup>^&</sup>, Salcedo F<sup>^&</sup>, Rivera Comacho<sup>^&</sup> YI, Perez SG<sup>^&</sup>, King ML<sup>^&</sup>, Hutt AE<sup>^&</sup>, Heiden A<sup>^&</sup>, Gooding G<sup>^&</sup>, Gomez-Rosado JO<sup>^&</sup>, Ford SA<sup>^&</sup>, Ferreira I<sup>^&</sup>, Chin MR<sup>^&</sup>, Bevan-Thomas WD<sup>^&</sup>, Barreiros BM<sup>^&</sup>, Alfonso E<sup>^&</sup>, Zheng Y, **Cooper KM**. Gender differences in student comfort voluntarily asking and answering questions in large-enrollment college science courses. *Journal of Microbiology & Biology Education*. <sup>&</sup>These authors contributed equally. June 2021. <https://journals.asm.org/doi/epub/10.1128/jmbe.00100-21>

30. Gin LE\*, Guerrero FA\*, Brownell SE, **Cooper KM**. COVID-19 and undergraduates with disabilities: Challenges resulting from the rapid transition to online course delivery for students with disabilities in undergraduate STEM. *CBE Life Sciences Education*. June 2021. <https://www.lifescied.org/doi/10.1187/cbe.21-02-0028>

[\*Invited annotation for CBE Life Sciences Education\*](#). Aug. 2022

29. Gin LE<sup>#</sup>, Scott RA<sup>#</sup>, Pfeiffer LD\*, Zheng Y, **Cooper KM**<sup>&</sup>, Brownell SE<sup>&</sup>. It's in the syllabus... or is it? How syllabi can serve as tools for creating inclusive classrooms. *Advances in Physiology*

Katelyn M. Cooper, 8



Education. April 2021. #these authors contributed equally, &these senior authors contributed equally. April 2021. <https://journals.physiology.org/doi/full/10.1152/advan.00119.2020>

28. Ding Lu, **Cooper KM**, Stephens MD\*, Chi MTH, Brownell SE. Learning from error episodes in dialog-videos: A comparison between higher- and lower-performing undergraduates in an authentic course study. *Australasian Journal of Educational Technology*. April 2021. <https://ajet.org.au/index.php/AJET/article/view/6239>

27. **Cooper KM**, Cala JM\*, Brownell SE. Cultural capital in undergraduate research: An exploration of how biology students operationalize knowledge to access research experiences at a large, public research-intensive institution. *International Journal of STEM Education*. February 2021. <https://stemeducationjournal.springeropen.com/articles/10.1186/s40594-020-00265-w>

### Commentary

Young N. (2021). [The ten “unwritten” rules of getting involved in undergraduate research](#). *PERbites Accessible Physics Education Research*.

McGlynn T. (2021). [Recommended reads #189](#). *Small Pond Science*.

26. **Cooper KM**, Schinske JN, Tanner KD. Reconsidering the Share of a Think-Pair-Share: Emerging Limitations, Alternatives and Opportunities for Research. *CBE Life Sciences Education*. January 2021. <https://www.lifescied.org/doi/pdf/10.1187/cbe.20-08-0200>

25. Nadile EM\*, Alfonso E<sup>^</sup>&, Barreiros BM<sup>^</sup>&, Bevan-Thomas WD<sup>^</sup>&, Brownell SE, Chin MR<sup>^</sup>&, Ferreira I<sup>^</sup>&, Ford SA<sup>^</sup>&, Gin LE\*, Gomez-Rosado JO<sup>^</sup>&, Gooding G<sup>^</sup>&, Heiden A<sup>^</sup>&, Hutt AE<sup>^</sup>&, King ML<sup>^</sup>&, Perez SG<sup>^</sup>&, Rivera Camacho YI<sup>^</sup>&, Salcedo F<sup>^</sup>&, Sellas CF<sup>^</sup>&, Sinda KA<sup>^</sup>&, Stahlhut KN<sup>^</sup>&, Stephens MD\*, Wiesenthal NJ<sup>^</sup>&\*, Williams KD<sup>^</sup>&, Zheng Y, **Cooper, KM**. Call on me! Undergraduates’ perceptions of voluntarily asking and answering questions in front of large-enrollment science classes. *PLoS One*. &These authors contributed equally. January 2021. <https://journals.plos.org/plosone/article/comments?id=10.1371/journal.pone.0243731>

24. **Cooper KM**<sup>#</sup>, Knope ML<sup>#</sup>, Munstermann M, Brownell SE. Students who analyze their own data in a course-based undergraduate research experience (CURE) show gains in scientific identity and emotional ownership of research. *Journal of Microbiology and Biology Education*. Nov. 2020. #These authors contributed equally. <https://www.asmscience.org/docserver/fulltext/jmbe/21/3/jmbe-21-69.pdf?expires=1605909972&id=id&acname=guest&checksum=ABCD6EB2A0D9A1D54606A8AFABC48E58>

23. Gin LE\*, Guerrero FA\*, **Cooper KM**<sup>#</sup>, Brownell SE<sup>#</sup>. Accessible active learning: To what extent is active learning inclusive for science undergraduates with disabilities? *CBE Life Sciences Education*. #These senior authors contributed equally. October 2020. <https://www.lifescied.org/doi/pdf/10.1187/cbe.20-03-0049>

### Commentary

Guerrero FA. (2020). Helping to support science undergraduates with disabilities in an active learning setting. *ASU SOLS Teach Tech Blog*.

22. **Cooper KM**<sup>#</sup>, Auerbach AJ, Bader JD, Beadles-Bohling AS, Brashears JA, Cline E, Eddy SE, Elliott DB<sup>^</sup>, Farley E, Fuselier L, Heinz HM, Josek T, Lane AK, Lo SM, Maloy J, Nugent M,

Katelyn M. Cooper, 9

Offerdahl E, Palacios-Moreno J, Ramos J, Reid JW, Sparks RA, Stephens M\*, Waring AL, Gormally C#, Brownell SE#. Fourteen recommendations to create a more inclusive environment for LGBTQ+ individuals in academic biology. CBE Life Sciences Education. July 2020. #These authors contributed equally <https://www.lifescied.org/doi/10.1187/cbe.20-04-0062>

*Article is in the top 1% of all research outputs ever tracked by Altmetric and is #4 of 669 outputs from the CBE Life Sciences Education.*

#### **Commentary**

Compton, J. (2022). [PRIDE 30: The New Generation](#). *NBC News*.

Brownell, S. (2020). [Tips to Make your Classroom More Inclusive for LGBTQ+ Students](#). *ASU Teach Tech Blog*.

21. **Cooper KM**, Gin LE\*, Brownell SE. Depression as a concealable stigmatized identity: What influences whether students conceal or reveal their depression in undergraduate research experiences? *International Journal of STEM Education*. June 2020. <https://stemeducationjournal.springeropen.com/articles/10.1186/s40594-020-00216-5>

#### **Commentary**

Cooper K. (2020). [How can we, as mentors, help undergraduate researchers with depression?](#) *BMC On Society*. Part of Springer Nature.

20. Downing VR\*\*, **Cooper KM**#, Cala JM\*, Gin LE\*, Brownell SE. Fear of negative evaluation and student anxiety in community college active learning science courses. *CBE Life Sciences Education*. May 2020. #These authors contributed equally. <https://www.lifescied.org/doi/10.1187/cbe.19-09-0186>

19. **Cooper KM**#, Gin LE\*\*, Barnes ME, Brownell SE. An exploratory study of students with depression in undergraduate research experiences. *CBE Life Sciences Education*. #These authors contributed equally. May 2020. <https://www.lifescied.org/doi/full/10.1187/cbe.19-11-0217?af=R>

*Article is in the top 3% of all research outputs ever tracked by Altmetric and is #16 of 648 outputs from the CBE Life Sciences Education.*

#### **Commentary**

Seckel, S. (2020). [Depression can hit science undergrads hard: What to do about it](#). *ASU Now*.

McGlynn T. (2020). [Recommended reads #174](#). *Small Pond Science*.

Cooper K. (2020). [How can we, as mentors, help undergraduate researchers with depression?](#) *BMC On Society*. Part of Springer Nature.

18. **Cooper KM**, Nadile EM\*, Brownell SE. Don't joke about me: Student identities and perceptions of instructor humor in college science courses. *Journal of Microbiology and Biology Education for the Inclusive Science special issue*. April 2020. <https://www.asmscience.org/content/journal/jmbe/10.1128/jmbe.v21i1.2085>

#### **Commentary**

Nadile EM. (2020). [Instructors, be careful about joking around: Science students find topics about own identity offensive](#). *ASU SOLS Teach Tech Blog*.

17. **Cooper KM**, Blattman JN, Hendrix T\*, Brownell SE. The impact of broadly relevant novel discoveries on student project ownership in a traditional lab course turned CURE. *CBE- Life Sciences Education*. November 2019. <https://www.lifescied.org/doi/10.1187/cbe.19-06-0113>

16. **Cooper KM**, Brownell SE, Gormally C. Coming out to the class: Identifying factors that influence college biology instructor decisions about whether to reveal their LGBTQ identity in class. *Journal of Women and Minorities in Science and Engineering*. October 2019. <http://www.dl.begellhouse.com/journals/00551c876cc2f027,4a7f1b59629473cd,3610e1d3176d3d99.html>

### **Commentary**

Compton, J. (2022). [PRIDE 30: The New Generation](#). *NBC News*.

15. **Cooper KM**<sup>#</sup>, Gin LE<sup>#\*</sup>, Akeeh B<sup>^</sup>, Clark CE<sup>^</sup>, Hunter JS<sup>^</sup>, Roderick TB<sup>^</sup>, Elliott DB<sup>^</sup>, Gutierrez LA<sup>^</sup>, Mello RM<sup>^</sup>, Pfeiffer LD<sup>^</sup>, Scott RA<sup>^\*</sup>, Arellano D<sup>^</sup>, Ramirez D<sup>^</sup>, Valdez EM<sup>^</sup>, Vargas C<sup>^</sup>, Velarde K<sup>^</sup>, Zheng Y, Brownell SE. Factors that predict biological sciences student persistence in undergraduate research experiences. *PLoS One*. August 2019. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0220186>

### **Commentary:**

Leander, S. (2019) [ASU study shows positive lab environment critical for undergraduate success in research](#). *ASU Now*.  
Highlighted by *Phys.Org*, *Science Daily*, and *Eureka Alert*.

Flaherty, C. (2018) Lab climate and persistence in undergraduate research? *Inside Higher Ed*.

Scott, R. (2019). Not all undergraduate research experiences are good. *ASU SOLS Teach Tech Blog*.

Seckel, S. (2020). Depression can hit science undergrads hard: What to do about it. *ASU Now*.

Johnson, K. (2020). Strategies and tips for inclusive advising. *PECOP Blog*.

Vargis C., Cooper K., (2020). How can we create more inclusive undergraduate research experiences for people excluded because of their ethnicity or race (PEERs)? *ASU SOLS Teach Tech Blog*.

Featured on SEISMIC Office Hours, a podcast hosted by Solina Solanki (June 2021).

14. **Cooper KM**<sup>#</sup>, Gin LE<sup>#\*</sup>, Brownell SE. Diagnosing differences in what undergraduates in a fully online and in-person program know and do regarding medical school admission. (<sup>#</sup>these authors contributed equally). *Advances in Physiology Education*. May 2019. <https://www.physiology.org/doi/10.1152/advan.00028.2019>

### **Commentary:**

Balli E. The College launches new Online Undergraduate Research Scholars Program. ASU News. September 2021. <https://news.asu.edu/20210921-college-launches-new-online-undergraduate-research-scholars-program>

13. **Cooper KM**, Brownell SE. Developing Discipline-based Education Research Course-based Research Experiences: Lessons learned and recommendations. *Journal of Microbiology and Biology Education*. September 2018.

<http://www.asmscience.org/content/journal/jmbe/10.1128/jmbe.v19i2.1567>

12. **Cooper KM**, Hendrix T<sup>\*</sup>, Stephens M<sup>\*</sup>, Cala JM<sup>\*</sup>, Mahrer K<sup>^</sup>, Krieg A<sup>^</sup>, Agloro A<sup>^</sup>, Badini G<sup>^</sup>, Barnes ME, Eledge B<sup>^</sup>, Jones R<sup>^</sup>, Lemon E<sup>^</sup>, Mossimo N<sup>^</sup>, Martin A<sup>^</sup>, Ruberto T<sup>^</sup>, Simonson K<sup>^</sup>, Weaver J<sup>^</sup>, Webb E<sup>^</sup>, Zheng Y, Brownell SE. To be funny or not to be funny: Gender differences in student perceptions of instructor humor in college science courses. *PLoS One*. August 2018.

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0201258>

#### **Commentary:**

Leander, S. (2018) Student-led study finds men and women differ in what topics they find funny and offensive. *ASU Now*.

Was the #1 most viewed ASU Now news story of 2018. Posted on Reddit and received over 35K views and 1300 comments. Highlighted by *ScienceCodex*, *Phys.Org*, *Brinkwire*, *Science Daily*, *Infosurhoy*, *EurekAlert*, *Wallstreet:online* and *Nature Partner Journals Science of Learning*.

Featured on WREK, a radio station at Georgia Tech (April, 2019). A full episode of Inside the Black Box, hosted by Pete Ludovice, Jennifer Leavy, and Ed Greco, was devoted to this work.

Flaherty, C. (2018) Why can't you trust an atom? *Inside Higher Ed*.

Highlighted by *STEM Prof Newsletter*

Ross, J. (2018). No laughing matter? Classroom humour treads a fine line. *The Times Higher Education*.

Renner B (2019). Class Clowns: Most students appreciate teachers with a sense of humor, study finds. *Study Finds*.

Micu, A. (2018). Humor done right helps in the classroom, 99% of students report. Bad humor hurts. *ZME Science*.

Ferdowsian, R (2018). 'To be funny or not to be funny': ASU study finds disparities in responses to humor. *The State Press*.

Brownell, S. (2018). Should science instructors try to be funny? Yes, depending on what they joke about. *ASU SOLS Teach Tech Blog*

Webb E, Cooper KM. (2018). Should science teachers try to be funny? *ASU- Ask A Biologist*.

11. Wright CD, Huang AL\*, **Cooper KM**, Brownell, SE. Exploring differences in decisions about exams among instructors of the same introductory biology course. *Journal for the Scholarship of*

Teaching and Learning. July 2018.

<https://digitalcommons.georgiasouthern.edu/cgi/viewcontent.cgi?article=1810&context=ij-sotl>

10. **Cooper KM<sup>#</sup>**, Downing VR\*<sup>#</sup>, Brownell SE. The influence of active learning practices on student anxiety in large-enrollment college science classrooms. *International Journal of STEM Education*. June 2018. (<sup>#</sup>these authors contributed equally).

<https://stemeducationjournal.springeropen.com/articles/10.1186/s40594-018-0123-6>

*Article is in the top 3% of all research outputs ever tracked by Altmetric and is #2 of 194 outputs from the International Journal of STEM Education.*

*Listed as the third most frequently cited International Journal of STEM Education article in the past two years*

*Highlighted by Science Magazine as an Editor's Choice for Education.*

*Featured in STEM Prof newsletter*

**Commentary:**

Jarvis C.L. (2020). The flip side of flipped classrooms. *Chemical and Engineering News*.

*Highlighted by STEM Prof Newsletter (2018). Examining the link between active learning practices and anxious students.*

Downing V. (2018). Considering Clickers & Anxiety: Implementing clicker technology so that it decreases student anxiety in the classroom. *ASU SOLS Teach Tech Blog*.

Brownell S. (2018). Is active learning making students anxious? It depends on how it's done. *Center for Biology and Society, Arizona State University*.

9. **Cooper KM**, Ding L, Stephens MS\*, Chi MTH, Brownell SE. A course-embedded comparison of instructor-generated videos of either an instructor alone or an instructor and a student. *CBE- Life Sciences Education*. June 2018. <https://www.lifescied.org/doi/abs/10.1187/cbe.17-12-0288>

**Commentary:**

Hurlbert, D. (2018). Tutee or not tutee: Who should be on camera in your instructional video? *Carleton College Academic Technology Blog*.

8. **Cooper KM**, Krieg A\*, Brownell, SE. Who perceives they're smarter? Exploring the influence of student characteristics on student academic self-concept. *Advances in Physiology Education*. April 2018. <https://www.physiology.org/doi/full/10.1152/advan.00085.2017>

*Article downloaded over 25,000 times, is in the top 1% of all research outputs ever tracked by Altmetric, and is #2 of 874 outputs from Advances in Physiology Education.*

**Commentary:**

This article generated local, national, and international press including:

Chokshi, N. (2018). Do men think they're better at science than women do? Well, actually... *New York Times*.

Fox, M. (2018). Not smart enough? Men overestimate intelligence in science class. *NBC News*.

Gillett, G. (2018). College men think they're smarter than they are; women are a little more realistic, study finds. *ABC News*.

Additionally, USA: *CNN, CNBC, ABC, Yahoo! News, Fortune, Inside Higher Ed, Science Daily, Science Newsline, Mother Jones, Jezebel, Slate The Gist, and AZ Central*. UK: *The Times, Daily Mail, The Daily Telegraph, London Evening Standard, Times Higher Education, Irish Independent*, Australia: *The Australian, The Northern Star*, India: *DNA (Delhi), The Free Press Journal, The Times of India*, in addition to being featured in dozens of other blogs and news organizations.

7. **Cooper KM<sup>#</sup>**, Ashley M<sup>#\*</sup>, Brownell, SE. Breaking down barriers: A bridge program helps first year biology students become comfortable and make connections with faculty. *Journal of College Science Teaching*. March 2018. <http://www.nsta.org/college/>

*Featured article in JCST March 2018 issue*

6. Ashley M<sup>#\*</sup>, **Cooper KM<sup>#</sup>**, Cala JM\*, Brownell SE. Building better bridges into STEM: A synthesis of 25 years of literature on STEM summer bridge programs. *CBE Life Sciences Education*. December 2017. (#these authors contributed equally) <https://www.lifescied.org/doi/10.1187/cbe.17-05-0085>

*Featured article in CBE LSE December 2017 issue*

5. **Cooper KM**, Ashley ME\*, Brownell SE. Using expectancy value theory as a framework to reduce student resistance to active learning: a proof of concept. *Journal of Microbiology and Biology Education*. August 2017. <http://www.asmscience.org/content/journal/jmbe/10.1128/jmbe.v18i2.1289>

*Featured as one of JMBE's most popular articles of 2017*

4. **Cooper KM**, Soneral PA, Brownell SE. Define your goals before you design a CURE: A call to use backward design in planning course-based undergraduate research experiences. *Journal of Microbiology and Biology Education*. August 2017. <http://www.asmscience.org/content/journal/jmbe/10.1128/jmbe.v18i2.1287>

3. **Cooper KM**, Ashley M\*, Brownell SE. A bridge to active learning: A summer bridge program helps students to maximize active learning experiences and the active learning experiences of others. *CBE Life Sciences Education*. March 2017. <https://www.lifescied.org/doi/full/10.1187/cbe.16-05-0161>

*7th most read article in CBE Life Sciences Education in the second month it was published*

2. **Cooper KM<sup>#</sup>**, Haney B<sup>#</sup>, Krieg A\*, Brownell SE. What's in a name? The importance of students perceiving an instructor knows their name in a high enrollment biology classroom. *CBE Life Sciences Education*. March 2017. (#these authors contributed equally) <https://www.lifescied.org/doi/10.1187/cbe.16-08-0265>

*8th most read article in CBE Life Sciences Education in the first month it was published*

**Commentary:**

Cooper KM. (2020). [Using Name Tents to Improve Engagement](#). *UCF Center for Teaching and Learning Faculty Focus*.

Weimer, M. (2017). The Importance of Learning Students' Names. *Faculty Focus Blog*.

Krieg, A. (2017) What's the Point of Using Student Names in Large Courses? *ASU SOLS Teachtech blog*.

Highlighted in *STEM PROF newsletter* (2017). I Got a Name: Why It Matters that Instructors Know Student Names.

1. **Cooper KM**, Brownell SE. Coming out in class: The challenges and opportunities of active learning for LGBTQIA students in an undergraduate biology class. *CBE Life Sciences Education* as part of the Broadening Participation Special Issue. September 2016.  
<https://www.lifescied.org/doi/10.1187/cbe.16-01-0074>

*2nd most read article in CBE Life Sciences Education in the first month it was published.*

*Article is in the top 2% of all research outputs ever tracked by Altmetric and is #15 of 598 outputs from CBE Life Sciences Education.*

**Commentary:**

Compton, J. (2022). [PRIDE 30: The New Generation](#). *NBC News*.

Lieberman, G. (2018) New data collection by NSF could change the perception of LGBT+ in STEM. *ASU State Press*.

Leander, S. (2016.) 'Coming out' in the classroom, but not by choice. *ASU Now*.

Pedersen, T. (2016). Interactive Classrooms May Push LGBT Students to "Come Out" Before They Are Ready. *PsychCentral*.

Cooper, K. (2016). How Instructors Can Make Their Active Learning Classrooms More Inclusive to Members of the LGBTQIA Community. *ASU SOLS Teachtech blog*

Featured on Teach Learn Pima a podcast hosted by Mays Iman (Sept. 2019).

**Manuscripts under revision after review**

Pigart CJ<sup>#\*</sup>. Wiesenthal NJ<sup>#\*</sup>. Mohammed TF\*. Kennedy \*L. Gin LE\*. **Cooper KM**. PhD Anxiety: The relationship between life science PhD students' anxiety and their experiences in research and teaching. Under review at *CBE Life Sciences Education* (<sup>#</sup>these authors contributed equally).

**Cooper KM**, Brownell SE, Schussler EE, Downing VR, Gin LE, McDonald KK, Nesse RM, Busch CA\*, England BJ, Grigler L, Maas SA, Molinaro M, Nieset NL, Pate AL, Rasmussen J, Schleider JL, Simmons AY, Spurgeon SL, Stonnington CM, Trobiano M. Meeting report: An interdisciplinary

Katelyn M. Cooper, 15

approach to addressing anxiety in undergraduate active learning biology courses. Under review at Advances in Physiology Education.

Pigart CJ\*, Mohammed TM\*, Acuña T<sup>&</sup>, Baltazar S<sup>&</sup>, Bean C<sup>&</sup>, Hart M<sup>&</sup>, Huizenga K<sup>&</sup>, James A<sup>&</sup>, Shaw H<sup>&</sup>, Zsuffa<sup>&</sup>, Busch CA\*<sup>+</sup>, **Cooper KM**<sup>+</sup>. Premed Pressure: Examining whether premed students experience more academic stress compared to non-premeds. Under review at Advances in Physiology Education. May 2024. (&These authors contributed equally; <sup>+</sup>These authors contributed equally)

### **Manuscripts under initial review**

**Cooper KM**, Busch CA\*. Brownell SE. Student identities predict classmate and instructor fear of negative evaluation among undergraduates in large-enrollment introductory biology courses. Under review at Journal of Microbiology and Biology Education

Busch CA<sup>#\*</sup>. Barstow M<sup>#\*</sup>. Brownell SE. **Cooper KM**. Why U.S. science and engineering undergraduates who struggle with mental health are left without role models. Under review at the PLoS Mental Health (<sup>#</sup>These authors contributed equally).

Busch CA\*. Bhanderi PB\*. **Cooper KM**. Brownell SE. National randomized experimental study finds no evidence of bias against LGBTQ+ science instructors. Under review at BioScience.

Nadile EM\*. Winton MR. Mohammed TF. Collins JP. Brownell SE. **Cooper KM**. Instructor-perceived benefits and costs of inviting students to answer questions voluntarily in large science courses. Under review at Advances in Physiology Education.

Edwards BA. Granados A. Mohammed TF\*. Aini RQ. **Cooper KM**. Barnes ME. Brownell SE. The experiences of students with concealable Muslim identities during peer interactions in undergraduate biology courses. Under review at CBE Life Sciences Education.

Busch CA, Bhanderi PB, Brownell SE\*, Cooper KM\*. Undergraduate science instructors revealing their LGBTQ+ identities in class benefited LGBTQ+ students and students with other marginalized identities. Under review at CBE Life Sciences Education. \*These senior authors contributed equally.

### **Book Chapter**

**Cooper KM**, Brownell SE. Student anxiety and fear of negative evaluation in active learning science classrooms. Chapter in book: Active learning in college science, the case for evidence-based practice. Springer Nature. February 2020. [https://link.springer.com/chapter/10.1007/978-3-030-33600-4\\_56](https://link.springer.com/chapter/10.1007/978-3-030-33600-4_56)

### **Teaching manuscript**

Cala JM\*, **Cooper KM**, Brownell SE. Using a Sequential Interpretation of Data in Envelopes (SIDE) approach to identify a mystery TRP channel. CourseSource. September 2018. <https://doi.org/10.24918/cs.2018.7>

### **Guest blogs**

**Cooper K.** (2022) Why do my identities belong in medicine? Consideration for pre-medical students. AdmissionsHelpers. <https://admissionshelpers.com/why-do-my-identities-belong-in-medicine-considerations-for-pre-medical-students/>



**Cooper K.** (2022) Should premeds write about mental health issues on medical school applications? AdmissionsHelpers. <https://admissionshelpers.com/should-premeds-write-about-mental-health-issues-on-medical-school-applications/>

Vargas C, **Cooper KM.** (2020) How can we create more inclusive undergraduate research experiences for people excluded because of their ethnicity or race (PEERs)? ASU Teach Tech Blog. <http://asutechwebs.blogspot.com/2020/11/how-can-we-create-more-inclusive.html>

**Cooper KM.** (2020). How can we, as mentors, help undergraduate researchers with depression? *BMC On Society*. Part of Springer Nature. <http://blogs.biomedcentral.com/on-society/2020/06/29/how-can-we-as-mentors-help-undergraduate-researchers-with-depression/>

**Cooper KM** (2020, June) Why I Come Out to my Biology Classrooms. American Society of Cell Biology Pride Month Blog. <https://www.ascb.org/careers/why-i-come-out-to-my-biology-classrooms/>

**Cooper KM.** (2020, March) Using Name Tents to Improve Engagement. UCF Faculty Center for Teaching and Learning Faculty Focus Blog. [https://fctl.ucf.edu/wp-content/uploads/sites/5/2020/03/FF\\_2020\\_March.pdf](https://fctl.ucf.edu/wp-content/uploads/sites/5/2020/03/FF_2020_March.pdf)

Webb E, **Cooper KM.** (2018, September) Should science teachers try to be funny? ASU- Ask A Biologist. <https://askbiologist.asu.edu/plosable/science-teacher-humor>

**Cooper, K.** (2016, September 1) How instructors can make their active learning classrooms more inclusive to members of the LGBTQIA community. SOLS Teachtech Blog. <http://asutechwebs.blogspot.com/2016/09/>

**Cooper, K.** (2015, September 30) The hidden economic costs of active learning. SOLS Teachtech Blog. <http://asutechwebs.blogspot.com/2015/09/>

### **Scientific Conference Proceedings**

Iyer, N., **Cooper, K.**, Yang, J., and Zenhausern, F. (2009). Measuring Elastic Properties of Highly Metastatic Cells using Nano-Capillary Wrinkling. *MRS Proceedings* (Vol. 1185, pp. 1185-II06). Cambridge University Press.

Iyer, N., **Cooper, K.**, Yang, J., and Zenhausern, F. (2009). Measuring elastic properties of thin biological films using capillary wrinkling. In A. D'Amore, D. Acierno, & L. Grassia (Eds.), *AIP Conference Proceedings* (Vol. 1042, No. 1, pp. 41-43). AIP.

### **PRESENTATIONS**

295 total presentations. 82 invited presentations as seminars, workshops, or talks at meetings, 66 peer-reviewed presentations at meetings, and my trainees have presented 150 presentations on our collaborative work.

#### **Invited talks and seminars, upcoming**

82. **Cooper KM.** Keynote talk: TBD. Missouri University of Science and Technology's Undergraduate Research Conference. Missouri University of Science and Technology. Rolla, MO. April 2025.

81. **Cooper KM.** Inclusive illusions: LGBTQ+ realities in the biological sciences. LGBTQ+ Ally Session Speaker. American Society of Cell Biology Annual Meeting. San Diego, CA. December 2024.
80. **Cooper KM.** Removing barriers to success for people with disabilities in STEMM education and STEMM careers. AAAS Disability Inclusion and Anti-Ableism in STEMM Multidisciplinary Working Group. Washington DC. November, 2024
79. **Cooper KM.** Depression in Science Faculty: The impact of research, teaching, mentoring, and service on science faculty depression. Research for Inclusive STEM Education Center. Arizona State University. Tempe, AZ. Nov. 2024.

### **Invited talks and seminars**

78. **Cooper KM.** Small changes, meaningful outcomes: Improving mental health among undergraduate and graduate students in the sciences. Department of Biology. Saint Louis University. Sept. 2024.
77. **Cooper KM.** Keynote talk: Creating inclusive scientific research environments: Considering undergraduate, graduate, and faculty mental health. College of Veterinary Medicine and Biomedical Sciences Joint NIH Training Program Symposium. Colorado State University. Fort Collins, CO. Aug. 2024.
76. **Cooper KM.** The relationship between mental health and learning. 2024 IRACDA Annual Conference: Maximizing Impact through Research and Teaching. Department of Psychology and Neuroscience. University of North Carolina- Chapel Hill. June 2024.
75. **Cooper KM.** Teaching in evidence-based ways that promote undergraduate mental health in the sciences. Searle Center for Teaching and Learning. Northwestern University. June 2024.
74. **Cooper KM.** Promoting mental health in the sciences. Supporting Mental Health in STEM Trainees Panel. Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) 365. June 2024.
73. **Cooper KM.** Small changes meaningful outcomes: Improving mental health among undergraduate and graduate students in the sciences. National Diversity Equity Workshop by the Open Chemistry Collaborative in Diversity Equity (OXIDE) at the Howard Hughes Medical Institute. Chevy Chase, MD. April 2024. [presented by Dr. Logan Gin].
72. **Cooper KM.** Within and beyond the classroom: The relationship between the life sciences, teaching, and the LGBTQ+ academic experience. ADInstruments. New Zealand. March 2024.
71. **Cooper KM.** Route to Success. Basis Chandler High School. Chandler, AZ. March 2024. *Declined.*
70. **Cooper KM.** Small changes meaningful outcomes: Improving mental health among undergraduate and graduate students in the sciences. Department of Biological Sciences. University of Alabama. Tuscaloosa, AL. March 2024. *Declined.*

69. **Cooper KM.** Small changes meaningful outcomes: Improving mental health among undergraduate and graduate students in the sciences. Department of Biology. University of Washington. Seattle, WA. Feb. 2024.
68. **Cooper KM.** Small changes meaningful outcomes: Improving mental health among undergraduate and graduate students in the sciences. UC Merced STEM Education Research Seminar Series and the SABER Spring Seminar Series. University of California Merced. Merced, CA. Jan. 2024.
67. **Cooper KM.** Creating inclusive science environments. Department of Biology at the University of Vienna. Vienna, Austria. November 2023.
66. **Cooper KM.** Small changes, meaningful outcomes: Improving mental health among undergraduate and graduate students in the sciences. Division of Biology and Medicine. Brown University. Providence, RI. October 2023.  
This talk was featured in an article in the [Brown Daily Herald](#).
65. **Cooper KM.** Backward design of CUREs. Sheridan Center for Teaching and Learning. Brown University. Providence, RI. October 2023.
64. **Cooper KM.** How biology learning environments affect students with anxiety and depression: identifying and lessening challenges. Hodson Memorial Lecture. Department of Biological Sciences. University of Delaware. Newark, DE. October 2023.
63. **Cooper KM.** Project Engage: A single session intervention increases undergraduate confidence in small group, whole class, and one-on-one discussions in active learning college biology classes. Research for Inclusive STEM Education STEM Inclusion Summit. Arizona State University. October 2023.
62. **Cooper KM.** Examining how research and teaching affect science graduate student mental health. Biology Department Seminar. Colorado State University. Fort Collins, CO. October 2023.
61. **Cooper KM.** Creating inclusive spaces in academic STEM for LGBTQ+ individuals. NanoString Technologies Inc. nPride. Seattle, WA. June 2023.
60. **Cooper KM.** Pride in Science Career Talk. Icahn School of Medicine Mount Sinai. New York, NY. June 2023.
59. **Cooper KM.** Small changes, meaningful outcomes: Improving mental health among undergraduate and graduate students in the sciences. College of Biological Sciences Office of Educational Scholarship and Practice. University of Guelph. May 2023.
58. **Cooper KM.** Promoting mental health among undergraduate researchers. ASU American Society of Biochemistry and Molecular Biology Research Group. Tempe, AZ. April 2023.
57. **Cooper KM.** Examining how research and teaching affect science graduate student mental health. Department of Biological Sciences at the University of Memphis. Memphis, TN. February 2023.
56. **Cooper KM.** Examining how research and teaching affect science graduate student mental health. Cellular Biology Seminar. University of Georgia. Athens, GA. February 2023.

55. **Cooper KM.** Examining how research and teaching affect science graduate student mental health. School of Earth and Space Explorations Faculty Topical Discussions. Arizona State University. Tempe, AZ. November 2022.
54. **Cooper KM.** Mental health in academic science. Biology and Society Seminar Lab. Arizona State University. Tempe, AZ. Nov. 2022.
53. **Cooper KM.** Panelist for LT Brain Trust. Expert speaker on inclusion. ADInstruments. Online. Nov. 2022.
52. **Cooper KM.** Examining how research and teaching affect science graduate student mental health. Natural Sciences Inclusion Summit. Arizona State University. Tempe, AZ. November 2022.
51. **Cooper KM.** How to make STEM academic environments more inclusive for LGBTQ+ individuals. Arizona State University Out in STEM (oSTEM). Tempe, AZ. October 2022.
50. **Cooper KM.** Toward more inclusive learning environments: identifying inequities and possible underlying mechanisms. Preparing Future Faculty & Scholars. Arizona State University. October 2022.
49. **Cooper KM.** Examining how research and teaching affect science graduate student mental health. Middle Tennessee State University. Murfreesboro, TN. September 2022.
48. **Cooper KM.** Examining how research and teaching affect science graduate student mental health. Molecular and Cellular Biology Seminar Series. Arizona State University. Tempe, AZ. August 2022.
47. **Cooper KM.** Building inclusive and fair classrooms: Spotting sources of bias in biology classrooms. American Physiological Society Institute on Teaching and Learning. Madison, WI. June 2022.
46. **Cooper KM.** Plenary Talk. Toward more inclusive biology learning environments: identifying inequities and possible underlying mechanisms. American Physiological Society Institute on Teaching and Learning. Madison, WI. June 2022.
45. **Cooper KM.** Creating more inclusive academic science environments for students with different identities. OPEN Math Workshop. Mathematical Association of America. June 2022.
44. **Cooper KM.** The impact of research and teaching on graduate student mental health. School of Life Sciences Graduate Student Retreat. Arizona State University. May 2022.
43. **Cooper KM.** The impact of research and teaching on graduate student mental health. UC San Diego Division of Biological Sciences. University of California, San Diego. April 2022.
42. **Cooper KM.** Session: Innovative techniques for developing an inclusive teaching environment. Presentation: Examining the experiences of LGBTQ+ students and students with disabilities to make biology education more inclusive. American Physiological Society's (APS) Annual Meeting at Experimental Biology 2022 (EB2022). Philadelphia, PA. March 2022.

41. **Cooper KM.** Panelist for session: Putting Equity at the Center of Change. 2022 Critical Issues in Mathematics Education (CIME) workshop at the Mathematical Sciences Research Institute (MSRI) in Berkeley. March 2022.
40. **Cooper KM.** Creating more inclusive science learning environments for LGBTQ+ individuals. Department of Biodiversity, Earth & Environmental Sciences Seminar, Drexel University. Online. Philadelphia, PA. February 2022.
39. **Cooper KM.** How biology learning environments affect students with anxiety and depression. Discipline-based Science Education Research Center. University of Pittsburgh. Pittsburgh, PA. January 2022.
38. **Cooper KM.** Creating more inclusive academic science environments for students with different identities. University of Massachusetts Amherst. February 2022.
37. **Cooper KM.** How biology learning environments affect students with anxiety and depression: identifying and lessening challenges. Department of Microbiology. University of California Davis. Davis, CA. January 2022.
36. **Cooper KM.** The opportunities and challenges of active learning for student anxiety, LGBTQ+ students, and students with disabilities. Department of Neurobiology, Physiology, and Behavior. University of California Davis. Davis, CA. January 2022.
35. **Cooper KM.** The impact of research and teaching on graduate student anxiety and depression. National Directors of Graduate Studies Changing Culture of Graduate Education Seminar Series. Online. December 2021.
34. **Cooper KM.** Gin LE. Wiesenthal NJ. How teaching and research affect graduate anxiety and depression. Bio and Society Spotlight Series. Arizona State University. Tempe, AZ. November 2021.
33. **Cooper KM.** How undergraduates' identities affect their experiences collaborating with peers in active learning courses. Department of History. Cooperation in Education Seminar Series. University of Texas San Antonio. San Antonio, TX. November 2021.
32. **Cooper KM.** How biology learning environments affect students with anxiety and depression: identifying and lessening challenges. Biology Department Seminar. Georgia Tech. Atlanta, GA. November 2021.
31. **Cooper KM.** Munstermann M. Students who analyze their own data in a course-based undergraduate research experience (CURE) show gains in scientific identity and emotional ownership of research. Tropical Conservation Biology and Environmental Sciences (TCBES) Seminar Series. University of Hawaii, Hilo. October 2021.
30. **Cooper KM.** Creating inclusive undergraduate STEM classrooms. University of Rhode Island, STEM Teach Week Seminar. June 2021.
29. **Cooper KM.** Munstermann M. Students who analyze their own data in a course-based undergraduate research experience (CURE) show gains in scientific identity and emotional ownership

of research. JMBE LIVE! Invited webinar. American Society of Microbiology Education Department. April 2021

28. **Cooper KM.** Hot off the press data on undergraduate anxiety and depression online biology courses. HHMI Inclusive Excellence School of Life Sciences Retreat. Arizona State University, Tempe, AZ, USA. April 2021.

27. **Cooper KM.** Creating more inclusive biology learning environments for LGBTQ+ individuals. Invited Biology Education Area Seminar. Department of Biological Sciences at Purdue University. Online. West LaFayette, IN, USA. April 2021.

26. **Cooper KM.** Creating more inclusive STEM learning environments for LGBTQ+ individuals. UCLA Queer and Trans in STEM invited seminar. University of California, Los Angeles, Los Angeles, CA, USA. March 2021.

25. **Cooper KM.** Factors that predict student persistence in research: From lab environment to mental health. Sloan Equity and Inclusion in STEM Introductory Classes (SEISMIC) invited seminar. University of Michigan, Ann Arbor, MI, USA. February 2021.

24. **Cooper KM.** Vargas C. Why underrepresented minority students are leaving undergraduate research experiences. Arizona State University Research for Inclusive STEM Education (RISE) Center. Virtual presentation due to COVID19. Tempe, AZ, USA. October 2020.

23. **Cooper KM.** Factors that predict student persistence in research: From lab environment to mental health. University of Alaska Fairbanks invited seminar. Virtual presentation due to COVID19. Fairbanks, AK, USA. October 2020.

22. **Cooper KM.** How biology learning environments affect students with anxiety and depression. University of Pittsburg. National Physics Education Research Consortium of Graduate Students (PERCoGS). Virtual presentation due to COVID19. Pittsburg, PA, USA. October 2020.

21. **Cooper KM.** Nadile EM. How instructor decisions impact how students feel and behave in college biology classrooms. University of Massachusetts Lowell. Virtual presentation due to COVID19. Lowell, MA, USA. October 2020.

20. **Cooper KM.** Creating more inclusive classrooms for students with anxiety and depression. Arizona State University Resilient Teaching Series. Virtual presentation due to COVID19. Tempe AZ, USA. September 2020.

19. **Cooper KM.** Identifying and lessening challenges for undergraduates with anxiety in biology learning environments. Arizona State University School of Life Sciences New Faculty Showcase. Virtual presentation due to COVID19. Tempe, AZ, USA. September 2020.

18. **Cooper KM.** Factors that predict student persistence in research: From lab environment to mental health. Cary Institute of Ecosystem Studies. Virtual presentation due to COVID19. Millbrook, NY, USA. May 2020.

17. **Cooper KM.** Identifying and lessening the challenges for undergraduates with anxiety and depression in biology learning environments. Virtual presentation due to COVID19. Tempe, AZ, USA. April 2020.
16. **Cooper KM.** Factors that predict student persistence in research: From lab environment to mental health. Florida International University STEM Transformation Institute invited seminar. Miami, FL, USA. April 2020. *Canceled due to COVID19.*
15. **Cooper KM,** Building inclusive and fair classrooms: Spotting sources of bias in biology classrooms. University of Alabama. March 2020. Virtual presentation due to COVID19.
14. **Cooper KM.** Factors that predict student persistence in research: From lab environment to mental health. University of Alabama Birmingham Research on STEM Education (ROSE) invited seminar. Virtual presentation due to COVID19. Birmingham, AL, USA. March 2020.
13. **Cooper KM.** Toward more inclusive active learning classrooms: How groups of students are differentially impacted by active learning. University of California San Diego Division of Biological Sciences Seminar Program. San Diego, CA, USA. February 2020.
12. **Cooper KM, Donnelly J.** Understanding students' responses to active learning. Faculty Center for Teaching and Learning 2019 Winter Conference. University of Central Florida. December 2019.
11. **Cooper KM.** Toward more inclusive active learning classrooms: Identifying inequities and possible underlying mechanisms. Auburn University. Department of Biological Sciences Seminar, Auburn AL, USA. November 2019.
10. **Cooper KM.** Factors that predict student persistence in research: From lab environment to mental health. University of Central Florida, Department of Chemistry invited seminar. Orlando, FL, USA. October 2019.
9. **Cooper KM.** Toward more inclusive active learning classrooms: Identifying inequities and possible underlying mechanisms. University of Central Florida. Orlando, FL, USA. March 2019.
8. **Cooper KM.** Toward more inclusive active learning classrooms: Identifying inequities and possible underlying mechanisms. Western Michigan University. Kalamazoo, MI, USA. January 2019.
7. **Cooper KM, Brownell SE.** A Sense of Mission: Assessment of courses that integrate teaching and research. Invited by the Howard Hughes Medical Association (HHMI) at the Council of Undergraduate Research (CUR) Dialogues Meeting. Washington DC, USA. February 2018.
6. **Cooper KM, Brownell SE.** Building inclusive and fair classrooms: Spotting sources of bias in biology classrooms. University of Heidelberg Center for Organismal Studies seminar. Heidelberg, Germany. July 2017.
5. **Cooper KM, Brownell SE.** Building inclusive and fair classrooms: Spotting sources of bias in biology classrooms. ASU Human Evolution and Social Change seminar. Tempe, AZ, USA. March 2017.

4. **Cooper KM**, Brownell SE. Building inclusive and fair classrooms: Spotting sources of bias in biology classrooms. Society for the Advancement of Biology Education Research (SABER) West meeting. Irvine, CA, USA. January 2017.
3. **Cooper KM**, Brownell SE. Building inclusive and fair classrooms: Spotting sources of bias in biology classrooms. ASU Committee for Campus Inclusion (CCI) Diversity and Inclusion Educational Conference. Tempe, AZ, USA. November 2016.
2. **Cooper KM**, Brownell SE. Building inclusive and fair classrooms: Spotting sources of bias in biology classrooms. ASU Evidence-based Teaching Seminar Series. Tempe, AZ, USA. September 2016.
1. **Cooper KM**. Coming out in class: The challenges and opportunities of active learning for LGBTQIA students in an undergraduate biology class. Arizona State University LGBT Showcase. Tempe, AZ, USA. April 2016.

### Peer-reviewed talks

Trainees who co-presented with me are designated with a \*

25. **Cooper KM**. The impact of research, teaching, mentoring, and service on science faculty depression. Society for the Advancement of Biology Education Research. Minneapolis, MN. 2024
24. **Cooper KM**. A single session intervention increases undergraduate confidence in small group, whole class, and one-on-one discussion in active learning university biology courses in the United States. Conference of European Researchers in Didactics of Biology. Lyon, France. July 2024.
23. **Cooper KM**. Project Engage: A single session intervention increases undergraduate confidence in small group, whole class, and one-on-one discussions in active learning college biology classes. Society for the Advancement of Biology Education Research. July 2023.
22. **Cooper KM**. Examining how research and teaching affect science graduate student mental health. Australian Science Education Research Association (ASERA) international meeting. June 2023.
21. **Cooper KM**. Long talk: Examining how research and teaching affect science graduate student mental health. Society for the Advancement in Biology Education Research (SABER) national conference 2022. July 2022.
20. **Cooper KM**. Examining how graduate research and teaching affect depression in life sciences Ph.D. students. Education Minisymposium: Silver Linings: Responsive Teaching through Major Transitions and Beyond at the American Society for Cell Biology Virtual 2021 Meeting. Dec. 2021
19. **Cooper KM**. Ph.D. Depression: Examining how graduate research and teaching affect depression in life sciences Ph.D. students. Society for the Advancement of Biology Education Research (SABER). Held electronically due to COVID19. July 2021.
18. **Cooper KM**. Creating more inclusive online biology learning environments for students with anxiety and depression. American Society for Microbiology Conference of Undergraduate Educators (ASMCUE). Held electronically due to COVID19. June 2021.



17. **Cooper KM.** Call on me! Undergraduates' perceptions of voluntarily asking and answering questions in front of large-enrollment science classes. Society for the Advancement of Biology Education Research (SABER) West. Held electronically due to COVID19. January 2021.
16. **Cooper KM.** Exploring student depression in undergraduate research experiences. Society for the Advancement of Biology Education Research (SABER). Held electronically due to COVID19. July 2020
15. **Cooper KM.** The impact of research anxiety on biology undergraduates' intentions to pursue a science research career. Society for the Advancement of Biology Education Research (SABER). Minneapolis, MN, USA. July 2019.
14. **Cooper KM.** The impact of research anxiety on biology undergraduates' intentions to pursue a science research career. Undergraduate Biology Education Gordon Research Seminar. Lewiston, ME, USA. June 2019.
13. **Cooper KM, Cala J\*.** Identifying the unwritten rules of obtaining undergraduate research experiences. Society for the Advancement of Biology Education Research (SABER) West coast regional meeting. Irvine, CA, USA. January 2019.
12. **Cooper KM.** Comparison of an immunology cookbook lab course and a course-based undergraduate research experience. The Future of Education International Conference. Pixel-International Education and Training Institution. Florence, Italy. June 2018.
11. **Cooper KM, Brownell SE.** A course-embedded comparison of instructor-generated videos of either an instructor alone or an instructor and a student. Experimental Biology. International Conference of Learning Sciences. London, United Kingdom. June 2018.
10. **Cooper KM.** Who perceives they're smarter? The influence of student identities on student academic self-concept in physiology. ASU Diversity and Inclusion Science Initiative. Tempe, AZ, USA. February 2018.
9. **Cooper KM, Downing VD\*.** How to make large-enrollment active learning science classes less anxiety inducing. ASU Diversity and Inclusion Science Initiative. Tempe, AZ, USA. February 2018.
8. **Cooper KM.** To be funny or not to be funny: Student perceptions of instructor use of humor in college science classrooms. ASU Diversity and Inclusion Science Initiative. Tempe, AZ, USA. February 2018.
7. **Cooper KM, Hendrix T\*.** To be funny or not to be funny: Student perceptions of instructor use of humor in college science classrooms. Society for the Advancement of Biology Education Research (SABER) West coast regional meeting. Irvine, CA, USA. January 2018.
6. **Cooper KM, Brownell SE.** Coming out in class: The influence of covert identities on student experiences in active learning classrooms. European Molecular Biology Laboratory (EMBL) Equality and Diversity Committee's Inspirational Seminar. Heidelberg, Germany. July 2017.

5. **Cooper KM**, Brownell SE. Coming out in class: The influence of covert identities on student experiences in active learning classrooms. International Higher Education of Teaching and Learning (HETL) Annual Meeting, Paisley, Scotland. June 2017.
4. **Cooper KM**. Coming out in class: The influence of covert identities on student experiences in active learning classrooms. Society for the Advancement of Biology Education Research (SABER) West meeting, Irvine, CA, USA. January 2017.
3. **Cooper KM**. A summer bridge program helps students to maximize active learning experiences and the active learning experiences of others. American Society for Cell Biology (ASCB) meeting. San Francisco, CA, USA. December 2016.
2. **Cooper KM**. A bridge to active learning: A summer bridge program helps students to maximize active learning experiences and the active learning experiences of others. Society for the Advancement of Biology Education Research (SABER) meeting. Minneapolis, MN, USA. July 2016.
1. **Cooper KM**. What's in a name? The importance of student perceptions of an instructor knowing their names in a high enrollment biology course. Society for the Advancement of Biology Education Research (SABER) meeting. Minneapolis, MN, USA. July 2016.

### **Conference Poster Presentations**

Trainees who co-presented with me are designated with a \*

41. **Cooper KM**. A brief online single session intervention increases undergraduate confidence speaking out in an active learning physiology course. American Physiology Summit 2023. May 2023.
40. **Cooper KM**. The scientific rules, roles, and values that life sciences graduate students want to see upheld by undergraduate researchers. SABER West. Irvine, CA. January 2023.
39. **Cooper KM**. Anxiety in active learning: First findings from an RCN-UBE Incubator Meeting. Society for the Advancement of Biology Education annual meeting. Minneapolis, MN. USA. July 2022.
38. **Cooper KM**. The underlying mechanisms that fuel stress among pre-med students (poster). Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN. July 2022.
37. **Cooper KM**. Examining how graduate research and teaching affect depression in life sciences Ph.D. students. Experimental Biology Annual Meeting. Philadelphia, PA USA. March 2022
36. **Cooper KM**. Examining how graduate research and teaching affect depression in life sciences Ph.D. students. American Society of Cell Biology (ASCB) annual meeting. Washington DC, USA. December 2021
35. **Cooper KM**. The impact of student research anxiety on undergraduate intention to pursue a scientific research career. American Society of Cell Biology (ASCB) annual meeting. Washington DC, USA. December 2019

34. **Cooper KM.** Factors that predict life sciences student persistence in undergraduate research experiences. American Society of Cell Biology (ASCB) annual meeting. Washington DC, USA. December 2019.
33. **Cooper KM.** Fear of negative evaluation: A novel construct underlying student anxiety in active learning college science courses. Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN, USA. July 2019.
32. **Cooper KM.** Fear of negative evaluation: A novel factor underlying student anxiety in active learning. Undergraduate Biology Education Gordon Research Conference. Lewiston, ME. June 2019.
31. **Cooper KM.** Leaving research: Factors that impact a student leaving an academic year research experience. Focus URE conference. Stuttgart, Germany. June 2019.
30. **Cooper KM.** Leaving research: Factors that impact a student leaving an academic year research experience. Society for the Advancement of Biology Education (SABER) West meeting. Irvine, CA, USA. January 2019.
29. **Cooper KM.** Gender differences of student perceptions of instructor humor in college science courses. American Society for Cell Biology (ASCB) annual meeting. San Diego, CA, USA. December 2018.
28. **Cooper KM.** The influence of active learning practices on student anxiety in large-enrollment college science classrooms. American Society for Cell Biology (ASCB) annual meeting. San Diego, CA, USA. December 2018.
27. **Cooper KM.** Coming out to the class: Identify factors that influence college biology instructor decisions about whether to reveal their LGBTQ identity in class. Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN, USA. July 2018.
26. **Cooper KM.** A course-embedded comparison of instructor-generated videos of either an instructor alone or an instructor and a student. Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN, USA. July 2018.
25. **Cooper KM.** To be funny or not to be funny: Students' perception of humor used by instructors in college science courses. Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN, USA. July 2018.
24. **Cooper KM.** Who perceives they're smarter? Exploring the experience of gender, transfer student status, and native English speaking on student academic self-concept in physiology. Experimental Biology annual meeting. San Diego, CA, USA. April 2018.
23. **Cooper KM.** A course-embedded comparison of instructor-generated videos of either an instructor alone or an instructor and a student. Experimental Biology annual meeting. San Diego, CA, USA. April 2018.
22. **Cooper KM.** Arizona State University's LEAP Scholars Program. Experimental Biology annual meeting- Outreach and Education. San Diego, CA, USA. April 2018.

21. **Cooper KM.** Identifying the unwritten rules for participating in undergraduate research. Diversity and Inclusion Science Initiative. Tempe, AZ, USA. February 2018.
20. **Cooper KM.** Same curriculum, different mice, different outcomes: A reductionist approach to probing the impact of working on broadly relevant novel research. Society for the Advancement of Biology Education Research (SABER) West coast regional meeting. Irvine, CA, USA. January 2018.
19. **Cooper KM.** Identifying the unwritten rules of obtaining undergraduate research experiences. Society for the Advancement of Biology Education Research (SABER) West coast regional meeting. Irvine, CA, USA. January 2018.
18. **Cooper KM.** Learning anxiously: Alleviating and exacerbating student anxiety in active learning classrooms. Society for the Advancement of Biology Education Research (SABER) West coast regional meeting. Irvine, CA, USA. January 2018.
17. **Cooper KM.** To be funny or not to be funny: Students' perception of humor used by instructors in college science courses. Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN, USA. July 2017.
16. **Cooper KM.** Who perceives they're smarter? Males have a higher academic self-concept in a large-enrollment physiology course. Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN, USA. July 2017.
15. **Cooper KM.** Learning Anxiously: The challenges and benefits of active learning for students with anxiety. Gordon Research Conference, Undergraduate Biology Education Research. Stonehill College, Easton, MA, USA. July 2017.
14. **Cooper KM.** Who perceives they're smarter? Males have a higher academic self-concept in a large-enrollment physiology course. Gordon Research Conference, Undergraduate Biology Education Research. Stonehill College, Easton, MA, USA. July 2017.
13. **Cooper KM.** Capital Gains: The influence of a summer bridge program on first year students' social capital. National Association for Research in Science Teaching (NARST) annual meeting. San Antonio, TX, USA. April 2017.
12. **Cooper KM.** A summer bridge program helps students to maximize active learning experiences and the active learning experiences of others. Biology Leadership Conference. Tucson, AZ, USA. February 2017.
11. **Cooper KM.** Who perceives they're smarter? Males have a higher academic self-concept in a large-enrollment physiology course. Society for the Advancement of Biology Education Research (SABER) West meeting. Irvine, CA, USA. January 2017.
10. **Cooper KM.** What's in a name? The importance of student perceptions of an instructor knowing their names in a high enrollment biology course. American Society for Cell Biology (ASCB) meeting. San Francisco, CA, USA. December 2016.

9. **Cooper KM.** Coming out in class: The challenges and opportunities of active learning for LGBTQIA students in an undergraduate biology class. American Society for Cell Biology (ASCB) meeting. San Francisco, CA, USA. December 2016
8. **Cooper KM.** An exploratory interview study of what factors impact student participation in undergraduate research. The Council on Undergraduate Research (CUR) meeting. Tampa, FL, USA. June 2016.
7. **Cooper KM.** A high enrollment course-based undergraduate research experience improves student conceptions of scientific thinking. The Council on Undergraduate Research (CUR) meeting. Tampa, FL, USA. June 2016.
6. **Cooper KM.** Design elements of a high-enrollment course based undergraduate research experience may lead to inaccurate student conceptions about scientific research. Experimental Biology meeting. San Diego, CA, USA. April 2016.
5. **Cooper KM.** Design elements of a high enrollment course based undergraduate research experience may lead to inaccurate student conceptions about scientific research. Freshman Research Initiative (FRI) Biennial Conference. Austin, TX, USA. March 2016.
4. **Cooper KM.** BioBridge: A two-week intensely active learning biology program has a positive impact on incoming first year students. ASU Institute for the Science of Teaching and Learning (ISTL) Learning and Innovation Showcase. Tempe, AZ, USA. January 2016.
3. **Cooper KM.** A high enrollment course-based undergraduate research experience improves student conceptions of scientific thinking. ASU Association for Women in Science (AWIS) JumpStarting STEM Careers Conference. Tempe, AZ, USA. January 2016.
2. **Cooper KM.** A high enrollment course-based undergraduate research experience improves student conceptions of scientific thinking. American Society for Cell Biology (ASCB) annual meeting. San Diego, CA, USA. December 2015.
1. **Cooper KM.** A high enrollment course-based undergraduate research experience improves student conceptions of scientific thinking and ability to interpret data. Society for the Advancement in Biology Education Research (SABER) meeting. Minneapolis, MN, USA. July 2015.

#### **Trainee invited talks and workshops**

20. **Pigart CJ.** The relationship between academic social comparison and fear of negative evaluation among underserved students in college science (talk). Biology Education Research Group. University of Washington. February 2024.
19. **Mohammed TF.** Small changes, meaningful outcomes: Improving mental health among undergraduate and graduate students in the sciences. ASU RISE Seminar Series. Tempe, AZ. October 2023.
18. **Pigart CJ.** The relationship between fear of negative evaluation and social comparison among underserved students in college science. Research for Inclusive STEM Education STEM Inclusion Summit. Arizona State University. Tempe, AZ. October 2023.

17. **Mohammed TF.** Mental Health Awareness Workshop. School of Life Science Bio Bridge Program. Arizona State University. Tempe, AZ. August 2023.
16. **Mohammed TF.** The impact of online learning on science student anxiety and depression. Natural Sciences Inclusion Summit. Research for Inclusive STEM Education Center. Arizona State University. Tempe, AZ. November 2022.
15. **Busch CA.** Inclusion is not about just gender and race. The diversity of identities that are important to consider. Natural Sciences Inclusion Summit. Research for Inclusive STEM Education Center. Arizona State University. Tempe, AZ. November 2022.
14. **Busch CA.** Disclosure decisions: Exploring the concealable stigmatized identities of science and engineering instructors. ROSE Network. University of Alabama, Birmingham. October 2022.
13. **Busch CA.** Disclosure decisions: Exploring the concealable stigmatized identities of science and engineering instructors. Biology Education Research Group (BERG). University of Washington. March 2022.
12. **Gin LE.** Challenges and opportunities for students with disabilities in evolving learning environments: active learning, online instruction, and undergraduate research. East Carolina University Department of Biology. Research in Progress Seminar Series. February 2022.
11. **Busch CA.** Coming Out to the Class: Students Benefit from an Instructor Revealing her LGBTQ+ Identity in a Large-enrollment Biology Course. ASU School of Life Sciences Graduate Symposia. March 2022.
10. **Gin LE.** Challenges and opportunities for students with disabilities in evolving STEM learning environments: active learning, online instruction, and undergraduate research. Research on STEM Education (ROSE) Network Seminar Series. University of Alabama Birmingham. February 2022.
9. **Mohammed TF.** The impact of online college science courses on student depression. Biology Education Research Group (BERG). University of Washington. February 2022.
8. **Gin LE.** Plenary Panel on Showcase of Accessibility. Undergraduate Field Experience Research Network (UFERN). January 2022.
7. **Gin LE.** Challenges and opportunities for students with disabilities in evolving STEM learning environments: active learning, online instruction, and undergraduate research. Department of Chemistry and Biochemistry. Northern Arizona University. January 2022.
6. Cooper KM. **Gin LE. Wiesenthal NJ.** How teaching and research affect graduate anxiety and depression. Bio and Society Spotlight Series. Arizona State University. Tempe, AZ. November 2021.
5. **Gin LE.** Challenges and opportunities for students with disabilities in evolving learning environments: active learning, online instruction, and undergraduate research. University of California San Diego's Science of Teaching Seminar Series. November 2021.

4. **Busch CA.** Coming Out to the Class: Students Benefit from an Instructor Revealing her LGBTQ+ Identity in a Large-enrollment Biology Course. Scientific Queeries. University of Alberta, Edmonton, Canada. June 2021. Presented virtually due to COVID-19.
3. **Gin LE.** Challenges for students with disabilities in active learning, undergraduate research, and the transition to online. Duke University Biology Department's Inclusion, Diversity, Equity, and Anti-Racism (IDEA) Graduate Committee. April 2020. Presented virtually due to COVID-19.
2. **Gin LE.** Challenges for students with disabilities in active learning and the transition to online. University of Washington - Biology Learning and Teaching meeting. Seattle, WA. February 2020. Presented virtually due to COVID-19.
1. **Gin LE.** Challenges for students with disabilities in active learning, undergraduate research, and the transition to online. Washington State University - Seminar for the School of Molecular Biosciences. Pullman, WA. January 2020. Presented virtually due to COVID-19.

### **Trainee peer-reviewed talks and poster presentations**

135. Miranda F, **Kahraman MA**, Brownell SE, Cooper KM. The next generation is coming out in class: Revisiting the experiences of LGBTQ+ undergraduates in active learning science courses. Research For Inclusive STEM Education Center. Arizona State University. Tempe, AZ. November 2024.
134. Davis ON, **Savic T.** Fail-Safe Science: An online video repository of scientists discussing their failures in grad school (poster). STEM Inclusion Summit. Research For Inclusive STEM Education Center. Arizona State University. Tempe, AZ. November 2024.
133. **Davis ON.** International Science Postgraduate Mental Health Alliance (poster). STEM Inclusion Summit. Research For Inclusive STEM Education Center. Arizona State University. Tempe, AZ. November 2024.
132. **Pigart CJ.** Depression over time in graduate school research (poster). STEM Inclusion Summit. Research For Inclusive STEM Education Center. Arizona State University. Tempe, Arizona. November 2024.
131. **Mohammed T.** To What Extent Do Different Demands of Academia affect Science Faculty's Mental Health? (poster). STEM Inclusion Summit. Research For Inclusive STEM Education Center. Arizona State University. Tempe, AZ. November 2024.
130. **Bhanderi P.** Undergraduate science instructors across the US revealing their LGBTQ+ identities in class benefited students with marginalized identities (poster). STEM Inclusion Summit. Research For Inclusive STEM Education Center. Arizona State University. Tempe, AZ. November 2024.
129. **Bhanderi P.** Undergraduate science instructors across the US revealing their LGBTQ+ identities in class benefited students with marginalized identities (poster). SACNAS National Conference. Phoenix, AZ. October 2024.
128. **Bhanderi P.** Undergraduate science instructors across the US revealing their LGBTQ+ identities

in class benefited students with marginalized identities (talk). BioSouthwest Symposium. Tempe, AZ. October 2024.

127. **Miranda. F.** The next generation is coming out in class: Revisiting the experiences of LGBTQ+ undergraduates in active learning science courses (poster). SABER annual meeting. Minneapolis, MN. July 2024.

126. **Busch CA.** Science instructors revealing LGBTQ+ identity in class at universities across the US benefited LGBTQ+ students, women, and students with anxiety and depression (poster). SABER annual meeting. Minneapolis, MN. July 2024.

125. **Busch CA.** National audit study indicates that undergraduates are not biased against LGBTQ+ instructors (poster). SABER annual meeting. Minneapolis, MN. July 2024.

124. **Pigart CJ.** A longitudinal study of depression among a national sample of PhD students in the sciences (poster). SABER annual meeting. Minneapolis, MN. July 2024.

123. **Mohammed TF. Kahraman M.** A proof of concept for Hopelessness Theory of Depression: Attributions help explain why challenges in research can exacerbate depressive symptoms among science undergraduates and graduates (talk). SABER annual meeting. Minneapolis, MN. July, 2024.

122. **Mohammed TF.** Toward culturally responsive mentoring of Muslim research mentees (poster). SABER annual meeting. Minneapolis, MN. July 2024

121. **Kahraman M.** Identity intersection: Examining how identity affects the relationship between undergraduate research and exacerbation of students' depressive symptoms (poster). SABER annual meeting. Minneapolis, MN. July 2024

120. **Mohammed TF.** To what extent do different demands of academia affect science faculty's mental health? (talk). Teachers College Doctoral Council Research Conference. Tempe, AZ. February, 2024.

119. **Pigart CJ.** The relationship between academic social comparison and fear of negative evaluation among underserved students in college science (talk). SABER West. Irvine, CA. January 2024.

118. **Nadile EM.** Instructor-perceived costs and benefits of inviting students to voluntarily answer questions in front of large science courses. (poster). SABER West. Irvine, CA. January 2024.

117. **Mohammed TF.** To what extent do different demands of academia affect science faculty mental health? (poster). SABER West. Irvine, CA. January 2024.

116. **Busch CA.** Beyond gender and race: The representation of concealable identities among college science instructors (talk). Southeastern STEM Education Conference (S2ERC). Murfreesboro, TN. January 2024.

115. **Pigart J.** Social comparison partially mediates the relationship between underserved science identities and fear of negative evaluation (talk). ASMCUE. Phoenix, AZ. November 2023.



114. **Mohammed TF.** How academia affects science faculty mental health (poster). American Society of Microbiology Conference for Undergraduate Educators (ASMCUE). Phoenix, AZ. November 2023.
113. **Bhanderi P.** Breaking the silence: Exploring the disclosure of LGBTQ+ identities among science and engineering instructors (poster). RISE STEM Inclusion Summit. Arizona State University. Tempe, AZ. October 2023.
112. **Kahraman MA.** Hoping and coming in undergraduate research experiences: Attributions associated with hopelessness and how undergraduates cope with depression in research (poster). RISE STEM Inclusion Summit. Arizona State University. Tempe, AZ. October 2023.
111. **Pigart CJ.** Social comparison partially mediates the relationship between underserved science identities and fear of negative evaluation (poster). RISE STEM Inclusion Summit. Arizona State University. Tempe, AZ. October 2023.
110. **Mohammed TF.** The Upside to Depression: Undergraduates benefit from an instructor revealing depression in a large-enrollment physiology course. (poster). RISE STEM Inclusion Summit. Arizona State University. Tempe, AZ. October 2023.
109. **Zsuffa K. Busch CA.** Premed Pressure: Examining whether premed students experience more academic stress compared to non-premeds (poster). RISE STEM Inclusion Summit. Arizona State University. Tempe, AZ. October 2023.
108. **Mohammed TF.** The Upside to Depression: Undergraduates benefit from an instructor revealing depression in a large-enrollment physiology course. (poster). SABER. July, 2023. Minneapolis, MN, USA. July 2023.
107. **Pigart J.** Social comparison partially mediates the relationship between underserved science identities and fear of negative evaluation (poster). SABER. Minneapolis, MN. July 2023.
106. **Kahraman MA.** Hoping and coming in undergraduate research experiences: Attributions associated with hopelessness and how undergraduates cope with depression in research (poster). SABER. Minneapolis, MN. July 2023.
105. **Busch CA.** Revealing an LGBTQ+ identity improves instructor likeability and rapport among undergraduate biology students in a randomized study (talk). SABER. Minneapolis, MN. July 2023.
104. **Busch CA.** An instructor revealing an LGBTQ+ identity improves student-instructor rapport among undergraduate biology students in a randomized study (poster). Undergraduate Biology Education Gordon Research Conference. Lewiston, ME. July 2023.
103. **Busch CA.** Undergraduates have few science instructor role models with concealable stigmatized identities (poster). Undergraduate Biology Education Gordon Research Conference. Lewiston, ME. July 2023.
102. **Pigart J.** Social comparison partially mediates the relationship between underserved science identities and fear of negative evaluation (poster). Undergraduate biology education research Gordon Research Conference. Lewiston, ME. July 2023.

101. **Pigart J.** Depression over time in graduate school research (poster). Undergraduate biology education research Gordon Research Conference. Lewiston, ME. July 2023.
100. **Mohammed T.** Characterizing undergraduate fear of negative evaluation in large-enrollment science courses (talk). SABER West. Irvine, CA. January 2023.
99. **Araghi T.** Exploring undergraduate students' experiences with depression in active learning science courses (talk). SABER West. Irvine, CA January 2023.
98. **Mohammed T.** The underlying mechanisms that fuel stress among pre-med students (poster). SABER West. Irvine, CA January 2023.
97. **Araghi T.** Students are reluctant to label depression as a disability despite experiencing limitations in college science courses (poster). SABER West. Irvine, CA January 2023.
96. **Abraham A.** Can I write about my mental health on my medical school application? Medical school admissions committees' potential biases regarding mental health conditions (poster). SABER West. Irvine, CA January 2023.
95. **Busch C.** Women drive efforts to highlight concealable stigmatized identities in U.S. academic science and engineering (poster). SABER West. Irvine, CA January 2023.
94. **Doud N.** The positive impact of an instructor revealing her depression to undergraduates in a large-enrollment physiology course (poster). SABER West. Irvine, CA January 2023.
93. **Pigart J.** Graduate anxiety in research and teaching (poster). SABER West. Irvine, CA January 2023.
92. **Barstow M.** Characterizing undergraduate fear of negative evaluation in large-enrollment science courses (poster). 4<sup>th</sup> Annual BioSci Southwest Symposium. October 2022.
91. **Araghi T.** Exploring undergraduate students' experiences with depression in active learning science courses (talk). Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN. July 2022.
90. **Busch CA.** Disclosure decisions: Exploring the concealable stigmatized identities of science and engineering instructors (talk). Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN. July 2022.
89. **Araghi T.** Students are reluctant to label depression as a disability despite experiencing limitations in college science courses (poster). Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN. July 2022.
88. **Busch CA.** Coming out in academia: Factors that influence instructor decisions to reveal their LGBTQ+ identities to undergraduates (poster). Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN. July 2022.

87. **Busch CA.** The scientific rules, roles, and values that life sciences graduate students want to see upheld by undergraduate researchers (poster). Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN. July 2022.
86. **Abraham A.** Can I write about my mental health on my medical school application? Medical school admissions committees' potential biases against mental health conditions (poster). Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN. July 2022.
85. **Wiesenthal NJ.** Navigating academic biology as an LGBTQ+ PhD student: learning, teaching, doing research (poster). Society for the Advancement of Biology Education Research (SABER) annual meeting. Minneapolis, MN. July 2022.
84. **Abraham AE.** Medical school admissions committee members' potential biases toward applicant mental health (poster). Barrett Honors Symposium. Tempe, AZ. April 2022.
83. **Norton J.** The impact of disability characteristics on retention-related outcomes (poster). Barrett Honors Symposium. Tempe, AZ. April 2022.
82. **Araghi T.** Examining the relationship between active learning and undergraduate depression (poster). Barrett Honors Symposium. Tempe, AZ. April 2022.
81. **Abraham AE.** Instructor perceptions of undergraduate incivility in online science courses. (poster). Experimental Biology Annual Meeting. Philadelphia, PA. March 2022.
80. **Busch, CA.** Coming out to the class: Students benefit from an instructor revealing her LGBTQ+ identity in a large-enrollment biology course. (poster). American Association for the Advancement of Science (AAAS) annual meeting. Virtual conference due to COVID-19. February 2022  
*Awarded 1<sup>st</sup> place for the 2022 Graduate Student Poster Competition in the Social Sciences*
79. **Wiesenthal, NJ.** Examining how research and teaching affect depression in life sciences Ph.D. students. (poster) American Association for the Advancement of Science (AAAS) annual meeting. Virtual conference due to COVID-19. February 2022.
78. **Abraham AE, Busch CA, Brownell SE, Cooper KM.** Instructor perceptions of undergraduate incivility in online science courses. (poster). American Association for the Advancement of Science (AAAS) Annual Meeting. February 2022.
77. **Busch, CA.** Coming out to the class: Students benefit from an instructor revealing her LGBTQ+ identity in a large-enrollment biology course. (talk). The Society for Integrative and Comparative Biology (SICB). Phoenix, AZ. January 2022.
76. **Mohammed, T.** The impact of large-enrollment online college science courses on student anxiety. (poster). The Society for Integrative and Comparative Biology (SICB). Phoenix, AZ. January 2022.
75. **Gin, LE.** Challenges and opportunities for students with disabilities in life science undergraduate research experiences. (talk). The Society for Integrative and Comparative Biology (SICB). Phoenix, AZ. January 2022.

74. **Mohammed TF.** PhDepression: Examining how graduate research and teaching affect depression in life sciences PhD students. (talk). The Society for Integrative and Comparative Biology (SICB). Phoenix, AZ. January 2022.
73. **Wiesenthal, NJ.** The impacts of concealing and revealing depression among life sciences Ph.D. students. The American Society for Cell Biology (ASCB) meeting. Virtual conference due to COVID-19. (poster). December 2021.
72. **Gin LE.** Challenges and opportunities for students with disabilities in life science undergraduate research experiences. American Society for Cell Biology - EMBO Virtual Meeting. (talk). Held remotely due to COVID-19. December 2021.
71. **Busch CA.** Coming Out to the Class: Students Benefit from an Instructor Revealing her LGBTQ+ Identity in a Large-enrollment Biology Course. (poster). American Society for Cell Biology (ASCB) Cell Bio Virtual 2021. December 2021.
70. **Mohammed, TF.** The impact of large-enrollment online college science courses on student anxiety. (talk). 3<sup>rd</sup> Annual BioSci Southwest Symposium. October 2021.
69. **Abraham AE,** Busch CA, Brownell SE, Cooper KM. Instructor perceptions of student incivility in the online undergraduate science classroom (poster). BioSci Southwest Symposium. Tempe, AZ. October 2021.
68. **Busch CA.** Coming Out to the Class: Students Benefit from an Instructor Revealing her LGBTQ+ Identity in a Large-enrollment Biology Course (talk). Out in Science, Technology, Engineering, and Mathematics (oSTEM). Held remotely due to COVID-19. October 2021.
67. **Wiesenthal, NJ.** Navigating academic biology as an LGBTQ+ Ph.D. student: learning, teaching, and doing research (talk). Out in Science, Technology, Engineering, and Mathematics (oSTEM) Conference 2021. Held remotely due to COVID-19. October 2021.
66. **Gin LE.** Students with disabilities in undergraduate research: Challenges and opportunities (talk). Inclusion in Science Learning a New Direction: A Conference on Disability in STEM (ISLANDS) 2021 Annual Meeting. (talk). Virtual conference due to COVID19. September 2021.
65. **Busch CA.** Coming out to the class: Students benefit from instructor revealing LGBTQ+ identity in a large-enrollment biology course (talk). American Chemical Society (ACS). Virtual conference due to COVID19.
64. **Gin LE.** Challenges and opportunities for students with disabilities resulting from the rapid transition to online course delivery during COVID-19 (talk). American Association of Physics Teachers (AAPT) Summer Meeting. Virtual conference due to COVID19.
63. **Mohammed T.** The impact of online college science courses on student anxiety (poster). 2021 American Association of Physics Teachers (AAPT) Summer Meeting. Virtual conference due to COVID19.

62. **Gin LE.** An exploration across institution types of undergraduate life sciences student decisions to stay in or leave an academic-year research experience (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2021.
61. **Mohammed T.** The Effects of Online Science Learning Environments on Undergraduates with Depression (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2021.
60. **Wiesenthal N.** Exploring depression as a concealable stigmatized identity: factors that influence Ph.D. students to conceal or reveal their depression in graduate school programs (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2021.
59. **Gin, LE.** Challenges and opportunities for students with disabilities in life science undergraduate research experiences (talk). SABER 2021. Virtual conference due to COVID19. July 2021.
58. **Busch C.** Coming Out to the Class: Students Benefit from Instructor Revealing LGBTQ+ Identity in a Large-enrollment Biology Course. (talk). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2021.
57. **Abraham A.** Instructor perceptions of student incivility in the online undergraduate science classroom during the COVID-19 pandemic (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2021.
56. **Busch C.** To what extent do science and engineering instructors reveal or conceal potentially invisible identities to students? PhD student (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2021.
55. **Nadile E.** Student perceptions of personalized emails with their names in an upper-level online biology course (poster). American Society of Microbiology Conference for Undergraduate Educators (ASMCUE). Virtual conference due to COVID19. June 2021.
54. **Mohammed T.** The experiences of students with depression in online science learning environments (poster). American Society of Microbiology Conference for Undergraduate Educators (ASMCUE). Virtual conference due to COVID19. June 2021.
53. **Busch C.** Creating more inclusive biology learning environments for LGBTQ+ individuals (talk). American Society of Microbiology Conference for Undergraduate Educators (ASMCUE). Virtual conference due to COVID19. June 2021.
52. **Wiesenthal N.** The effect of research and teaching on depression in life sciences PH.D. students (poster). American Society of Microbiology Conference for Undergraduate Educators (ASMCUE). Virtual conference due to COVID19. June 2021.
51. **Wiesenthal N.** The effect of research and teaching on depression in life sciences PH.D. students (poster). Experimental Biology. Virtual conference due to COVID19. April 2021.
50. **Busch C.** Student benefit from instructor revealing LGBTQ+ identity in an upper-level physiology course (poster). Experimental Biology. Virtual conference due to COVID19. April 2021.

49. **Wiesenthal N.** The effect of research and teaching on depression in life sciences PH.D. students (talk). Experimental Biology. Virtual conference due to COVID19. April 2021.
48. **Busch C.** Student benefit from instructor revealing LGBTQ+ identity in an upper-level physiology course (talk). Experimental Biology 2021. Virtual conference due to COVID19. April 2021.  
*Awarded 2021 Teaching Section Research Recognition Award.*  
*Awarded Graduate College Q4 Online/Remote Travel Award for the Experimental Biology 2021 Conference*
47. **Mohammed T.** The effects of online science learning environments on undergraduates with depression (poster). Experimental Biology. Virtual conference due to COVID19. April 2021.
46. **Abraham A.** Instructor perceptions of student incivility in the online undergraduate science classroom during the COVID-19 pandemic (talk). ASU SOLUR Symposium. Virtual symposium due to COVID19. April 2021.
45. **Mohammed T.** The effects of online science learning environments on undergraduates with depression (talk). ASU SOLUR Symposium. Virtual symposium due to COVID19. April 2021.
44. **Nadile EM.** Call on me! Science undergraduates' perceptions of voluntarily asking questions (poster). American Association for the Advancement of Science (AAAS). Virtual conference due to COVID19. February 2021.  
*Awarded 1<sup>st</sup> prize in the AAAS Student E-Poster Competition- Social Science Division*
43. **Gin LE.** Challenges and opportunities for students with disabilities resulting from the rapid transition to online course delivery during COVID-19 (talk). SABER West Virtual Meeting. Virtual conference due to COVID19. January 2021.
42. **Nadile EM.** Call on me! Science undergraduates' perceptions of voluntarily asking questions (talk). National Association for Biology Teachers (NABT). Virtual conference due to COVID19. November 2020.  
*Awarded first prize at NABT Poster Competition*
41. **Gin LE.** Accessible active learning: To what extent is active learning inclusive for science undergraduates with disabilities? (talk). 2<sup>nd</sup> Annual BioSci Southwest Symposium. Virtual conference due to COVID19. October 2020.
40. **Nadile EM.** Call on me! Science undergraduates' perceptions of voluntarily asking questions (talk). 2<sup>nd</sup> Annual BioSci Southwest Symposium. Virtual conference due to COVID19. October 2020.
40. **Gin LE.** Factors that predict life sciences student persistence in undergraduate research experiences across institution types (poster). ASU Institute of Social Science Research (ISSR) Poster Competition. Virtual conference due to COVID19. October 2020.
39. **Gin LE.** Accessible active learning: To what extent is active learning inclusive for science undergraduates with disabilities? (talk). Geological Society of America (GSA) annual meeting. Virtual conference due to COVID19. October 2020.

38. **Turner A.** Publications CURE all: Student-perceived benefits of co-authoring a peer-reviewed scientific publication stemming from a molecular genetics course-based undergraduate research experience (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2020.
37. **Gin LE.** Factors that predict life sciences student persistence in undergraduate research experiences across institution types (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2020.
36. **Downing VR.** Fear of negative evaluation and student anxiety in community college active learning science courses (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2020.
34. **Scott RA.** It's in the syllabus... or is it? How syllabi can serve as tools for creating inclusive classrooms (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2020.
36. **Gin LE.** Call on me! Accessible active learning: To what extent is active learning inclusive for science undergraduates with disabilities? (talk). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2020.
35. **Nadile EM.** Call on me! Undergraduates' perceptions of voluntarily asking questions in front of large-enrollment science classes (poster). Society for the Advancement of Biology Education Research (SABER). Virtual conference due to COVID19. July 2020.
34. **Nadile EM.** Call on me! Undergraduates' perceptions of voluntarily asking questions in front of large-enrollment science classes (poster). Australasian Science Education Research Association (ASERA). Virtual conference due to COVID19. June 2020.
33. **Downing VR.** Fear of negative evaluation and student anxiety in community college active learning science courses (talk). American Educational Research Association (AERA). San Francisco, CA, April 2020.
32. **Gin L.** Factors that predict life sciences student persistence in undergraduate research experiences (talk). Society for the Advancement of Biology Education Research West coast meeting. Irvine, CA, USA. January 2020.
31. **Gin L.** Fear of negative evaluation and student anxiety in community college active learning science courses (poster). Society for the Advancement of Biology Education Research West coast meeting. Irvine, CA, USA. January 2020.
30. **Nadile E.** Don't joke about me: The impact of student identity on perception of instructor humor in college science courses (poster). Society for the Advancement of Biology Education Research West. Irvine, CA, USA. January 2020.
29. **Cala J.** Fear of negative evaluation and student anxiety in community college active learning science courses (talk). National Association for Biology Teachers national meeting. Chicago, IL, USA. November 2019.

28. **Cala J.** The unwritten rules of undergraduate research (poster). National Association for Biology Teachers national meeting. Chicago, IL, USA. November 2019.
27. **Gin L.** Diagnosing differences in preparing for med school between students in online and in-person biology degree programs (poster). American Association for Medical Colleges Annual Meeting. Phoenix AZ, USA. November 2019.
26. **Scott R, Ramiriez D.** Factors that predict biological sciences student persistence in undergraduate research experiences (poster). BioSci Southwest Symposium. Tempe, AZ, USA. November 2019.
25. **Nadile E.** Don't joke about me: The impact of student identity on perception of instructor humor in college science courses (poster). BioSci Southwest Symposium. Tempe, AZ, USA. November 2019.
24. **Gin L.** Diagnosing differences in what undergraduates in ASU's fully online and an in-person biology degree program know and do regarding medical school admission (talk). ASU BioSci Southwest Symposium. Tempe, AZ, USA. November 2019.
23. **Clark C.** Arizona State University's LEAP Scholars program (poster). National Science Foundation S-STEM meeting. Washington DC, USA. September 2019.
22. **Gin L.** Leaving research: Factors that influence science student persistence in undergraduate research (talk). Geological Society of America national meeting, Phoenix AZ, September 2019.
21. **Gin L.** Diagnosing differences in what undergraduates in a fully online and in an in-person biology degree program know and do regarding medical school admission (talk). Society for the Advancement of Biology Education Research. Minneapolis, MN, USA. July 2019.
20. **Gin L.** Leaving Research: Factors that impact a student leaving an academic year research experience (poster). Society for the Advancement of Biology Education Research. Minneapolis, MN, USA. July 2019.
19. **Gin L.** Leaving Research: Factors that impact a student leaving an academic year research experience (poster). Undergraduate Biology Education Research Gordon Research Conference. Lewiston, ME, USA. June 2019.
18. **Gin L.** Diagnosing differences in what undergraduates in a fully online and in an in-person biology degree program know and do regarding medical school admission (poster). Undergraduate Biology Education Research Gordon Research Seminar. Lewiston, ME, USA. June 2019.
17. **Gin L.** Leaving Research: Factors that impact a student leaving an academic year research experience (poster). Sloan Equity and Inclusion in STEM Introductory Courses (SEISMIC) summer conference. Ann Arbor, MI, June 2019.
16. **Gin L.** Fear of negative evaluation: A novel construct underlying student anxiety in active learning college science courses (poster). Sloan Equity and Inclusion in STEM Introductory Courses (SEISMIC) summer conference. Ann Arbor, MI, USA. June 2019.



15. **Gin L.** Online with Career Goals? Exploring student decisions to enroll in online biology degree programs and lab courses (poster). ASU Teacher's College Education Research Conference. Tempe, AZ, USA. February 2019.
14. **Gin L.** Maximizing inclusion and questioning excellence: Are online biology degree programs a way to promote inclusive excellence in undergraduate education? (talk). ASU Diversity and Inclusion Science Initiative (DISI) Tempe, AZ, USA. February 2019.
13. **Hendrix T.** How do astrophysicists organize a party? Their wives planet: Gender differences in student perceptions of instructor humor in college science classrooms (poster). Experimental Biology. San Diego, CA, USA. April 2018.
12. **Hendrix T.** How do astrophysicists organize a party? Their wives planet: Gender differences in student perceptions of instructor humor in college science classrooms (poster). ASU Undergraduate Research Symposium. Tempe, AZ, USA. April 2018.
11. **Cala JM.** Identifying the unwritten rules of obtaining undergraduate research experiences (poster). Society for the Advancement of Biology Education Research. Minneapolis, MN, USA. July 2017.
10. **Krieg A.** What's in a name? The importance of student perceptions of an instructor knowing their names in a high enrollment biology course (poster). ASU Undergraduate Research Symposium. Tempe, AZ, USA. March 2017.
9. **Krieg A.** What's in a name? The importance of student perceptions of an instructor knowing their names in a high enrollment biology course (poster). American Association for the Advancement in Science (AAAS) national meeting. Boston, MA, USA. February 2017.
8. **Downing VR.** Learning Anxiously: The challenges and benefits of active learning for students with anxiety (poster). Society for the Advancement of Biology Education Research West coast regional meeting. Irvine, CA, USA. January 2017.
7. **Ashley ME.** Capital Gains: The influence of a summer bridge program on first year students' social capital (poster). Society for the Advancement of Biology Education Research West coast regional meeting. Irvine, CA, USA. January 2017.
6. **Krieg A.** What's in a name? The importance of student perceptions of an instructor knowing their names in a high enrollment biology course (poster). Society for the Advancement of Biology Education Research West coast regional meeting. Irvine, CA, USA. January 2017.
5. **Ashley ME.** Capital Gains: The influence of a summer bridge program on first year students' social capital (poster). ASU ISTL Learning Innovation Showcase. Tempe AZ, USA. January 2017.
4. **Krieg A.** What's in a name? The importance of student perceptions of an instructor knowing their names in a high enrollment biology course (poster). ASU ISTL Learning Innovation Showcase. Tempe AZ, USA. January 2017.
3. **Krieg A.** What's in a name? The importance of student perceptions of an instructor knowing their names in a high enrollment biology course (poster). ASU School of Life Sciences Honors Event. Tempe AZ, USA. December 2016.

2. **Ashley ME.** Using a lens of Expectancy Value Theory to explore student resistance to active learning (poster). Society for the Advancement of Biology Education Research national meeting. Minneapolis MN, USA. July 2016.

1. **Ashley ME.** A bridge to active learning: A summer bridge program helps students to maximize their active learning experiences and think about equity in groupwork (poster). ASU SOLS Undergraduate Research Symposium, Tempe, AZ, USA. April 2016.

## **RESEARCH-RELATED MEDIA APPEARANCES AND NEWS INTERVIEWS**

### **Television**

- Live interview with Ben Bland. BBC World News. BBC. May 2021. United Kingdom.
  - Featured as an expert on gender performance differences in education.
- Interview with Lauren Reimer. CBS Channel 5 Arizona's Family: Phoenix News. April 2018. USA.
  - Segment discussing 2018 article: *Who perceives they are smarter? Exploring the influence of student characteristics on student academic self-concept in physiology?*

### **Podcasts**

- Interview with Ryan Gray MD. The Premed Years Podcast. Jan. 2023.
  - Discussed lab paper: *Should I write about mental health on my med school app? Examining medical school admissions committee member biases regarding mental health conditions*
- Interview with Sabrina Solanki. SEISMIC [Office Hours Podcast](#). June 2021.
  - Featured as an expert on undergraduate research experiences. Episode highlighted results for my 2019 paper: *Factors that predict biological sciences student persistence in undergraduate research experiences.*
- Interview with Mary Spiro. American Society for Cell Biology (ASCB's) Pathways Podcast. June 2021.
  - Featured as an expert on the experiences of LGBTQ+ individuals in Biology. Full episode devoted to the use of humor in the classroom discussing my 2020 paper: *Fourteen recommendations to create a more inclusive environment for LGBTQ+ individuals in academic biology.*

### **Radio**

- Interview with Peter Ludovice, Jennifer Leavy, and Ed Greco. Inside the Black Box. WREK Georgia Tech Radio. April 2019. USA.
  - Full episode devoted to the use of humor in the classroom discussing my 2018 research paper: *To be funny or not to be funny: Gender differences in student perceptions of instructor humor in college science courses*
- Interview with Wendy Harmer and Robbie Buck. Australian Broadcast Centre (ABC) Breakfast Show. ABC Radio. April 2018. Sydney, Australia
  - Segment discussing the overconfidence of men and my 2018 research paper: *Who perceives they are smarter? Exploring the influence of student characteristics on student academic self-concept in physiology?*
- Interview with Simi Sara. Mornings with Simi | Global News. CKNW. April 2018. Vancouver B.C., Canada

- Segment discussing my 2018 research paper: *Who perceives they are smarter? Exploring the influence of student characteristics on student academic self-concept in physiology?*

### Interviews for national & international news articles

- Interview with Nature journalist Chris Woolston for the 2022 write up of Nature's mental health survey of graduate students. [\*Stress and uncertainty drag down graduate students' satisfaction.\*](#) October 2022.
  - My commentary helps make sense of Nature's annual survey of graduate students about their mental health.
- Interview with Ryan Kelly from Passport Admissions.
  - Interview highlighted results from recent study: *Should I write about mental health on my med school app? Examining medical school admissions committee members' biases regarding mental health conditions.*
- Interview with American Society of Biochemistry and Molecular Biology (ASBMB) Today writer Annie Prud'homme-Genereux about the experiences of students with depression in online biology courses. [\*Many undergraduates are depressed. Online instructors can help.\*](#)
  - Article brings attention to the experiences of students with depression in online biology courses based on two of our published papers: *The experiences of undergraduates with depression in online science learning environments* and *Aspects of online college science courses that alleviate and exacerbate undergraduate depression.*
- Interview with NBC News journalist Julie Compton for [\*NBC PRIDE 30: The new generation.\*](#) Featured as a [\*pioneering biology professor\*](#) making biology more inclusive for LGBTQ+ individuals. June 2022.
  - Article recognized me as one of 30 LGBTQ+ individuals helping sculpt the future for LGBTQ+ people.
- Interview with Science Magazine journalist Katie Langin for article [\*This lab asked depressed Ph.D. students what's hardest- and what parts of grad school help them cope.\*](#) Science Magazine. 2021.
  - Article highlights my 2021 research paper: *PhDepression: Examining how graduate research and teaching affect depression in life sciences PhD students*
- Interview with New York Times journalist Niraj Chokshi for article [\*Do men think they're better at science than women do? Well, actually...\*](#) New York Times. 2018.
  - Article highlights my 2018 research paper: *Who perceives they are smarter? Exploring the influence of student characteristics on student academic self-concept in physiology?*
- Interview with NBC journalist Maggie Fox for article [\*Not smart enough? Men overestimate intelligence in science class.\*](#) NBC News. 2018.
  - Article highlights my 2018 research paper: *Who perceives they are smarter? Exploring the influence of student characteristics on student academic self-concept in physiology?*

### ASU press

- [\*SOLS faculty and graduate student win awards for mentorship and research.\*](#) ASU News. May 2024.
- [\*Honoring the LGBTQ+ community in science.\*](#) ASU News. June 2022.
  - Article highlights my efforts to create more inclusive science learning environments for LGBTQ+ individuals.
- [\*19 ASU faculty receive NSF CAREER Awards.\*](#) ASU News. June 2022.

- [NSF CAREER award supports research to improve student mental health](#). *ASU News*. May 2022
  - Articles highlight my NSF CAREER award focused on understanding the relationship between undergraduate/graduate research and depression.
- [Life sciences graduate students awarded NSF fellowships](#). *ASU News*. April 2022.
  - Article highlights Cooper lab NSF GRFP winners: incoming graduate student Jynx Pigart (2022) current graduate students Tasneem Mohammed (2022), Nicholas Wiesenthal (2022), Carly Busch (2020), and alumnus Logan Gin (2017).
- [NSF Graduate Research Fellowship Program \(GRFP\) recognizes 4 outstanding CBS graduate students](#). *Center for Biology and Society*. April 2022.
  - Article highlights Cooper lab NSF GRFP winners: incoming graduate student Jynx Pigart (2022) and current graduate students Tasneem Mohammed (2022), Nicholas Wiesenthal (2022), and Carly Busch (2020).
- [ASU faculty create welcoming spaces for women in STEM](#). *ASU Online*. March 2022.
  - Article highlights my in-person and online biology education research CUREs.
- [ASU school awarded seed grants to develop immersive online undergraduate research opportunities](#). *ASU News*. November 2021.
  - Article highlights the biology education CURE that was developed for ASU online students.

#### **University of Central Florida press**

- [10 UCF Students Recognized by NSF Graduate Research Fellowship Programs](#). *UCF News*. April 2022.
  - Article highlights graduate student Nick Wiesenthal's GRFP.
- [New Biology Hire Brings Focus to Accessibility](#) *UCF College of Sciences News*. September 2019.
  - Article highlights Cooper lab at UCF and focus on creating more inclusive science learning environments.

### **TEACHING EXPERIENCE**

#### **Arizona State University, School of Life Sciences (2021 – present)**

- BIO 360 Animal Physiology, Fall 2022, Spring 2024
  - Co-teach a 340 person, 3-credit, upper-level course on animal physiology with an emphasis on human physiology. This course is taught to biology majors in an active learning way. The course aims to teach physiology through the core concepts of biology as outlined by Vision and Change, focusing especially on information flow, systems, and structure function.
- BIO 494: Biology Education Research, as an o-course for ASU online students, Spring 2022, Spring 2023
  - Developed and taught a 3-credit course-based research experience (CURE) for undergraduates in ASU's fully online program. In this course, students learn about the process of science by engaging in an authentic biology education research project with the intent to publish their findings. The development of the oCURE was partially funded by the 2022 ASU Online Undergraduate Research Scholars (OURS) Program Group-based Research Experience Seed Grant for \$10,000, which was renewed in 2023 for an additional \$10,000. This course was backward designed to deliver process of science, quantitative reasoning, modeling and simulation, and communication and

collaboration skills; four of the biology core competencies outlined by Vision and Change.

- **Course press:**
    - [ASU News article about grant awarded to develop the class](#)
    - [ASU News article on research publication](#)
  - **Spring 2022 course publication:**
    - *CBE LSE*: <https://www.lifescied.org/doi/10.1187/cbe.22-10-0195>
- BIO 494/598: Biology Education Research, for in-person students taught online due to the COVID-19 pandemic, Spring 2021
    - Developed and taught a 3-credit course-based research experience (CRE) for undergraduates and graduate students interested in conducting biology education research. In this course, students learn about the process of science by engaging in an authentic biology education research project with the intent to publish their findings. This is the first bio ed CURE to be taught entirely online. This course was backward designed to deliver process of science, quantitative reasoning, modeling and simulation, and communication and collaboration skills; four of the biology core competencies outlined by Vision and Change.
      - **Spring 2021 course publications:**
        - *CBE LSE*: <https://www.lifescied.org/doi/10.1187/cbe.21-05-0132>
        - *CBE LSE*: <https://www.lifescied.org/doi/10.1187/cbe.22-05-0088>
  - BIO 591: Topic: Papers in Inclusive Teaching in College Sciences, Fall 22, Spring 23, Fall 23
    - Developed and taught this 1-credit course where undergraduate and graduate students engage in undergraduate and graduate biology education research by (1) engaging in workshops focused on creating inclusive sciences classrooms, (2) participating in journal article reading and discussion, and (3) contribute to discussions about biology education research projects happening in the Research for Inclusive STEM Education Center. This course was backward designed to deliver process of science skills and communication and collaboration skills; two of the core competencies outlined by Vision and Change.

#### **University of Central Florida, Department of Biology (2020)**

- BSC 4910 Biology Education Research, \*Research-Intensive course, Spring 2020, first half of semester in-person, second half online owing to the COVID-19 pandemic
  - Developed and taught a 3-credit course-based undergraduate research experience (CURE) for 19 biology, chemistry and physics majors. In this course, students learn about the process of science by engaging in an authentic biology education research project with the intent to publish their findings. \*The University of Central Florida awards Research-Intensive (RI) course designations to courses that provide curriculum-based engagement in high impact practices such as research.
    - **Spring 2020 course publications:**
      - *PLoS One*: <https://pubmed.ncbi.nlm.nih.gov/33434226/>
      - *Journal of Microbiology and Biology Education*: <https://journals.asm.org/doi/epub/10.1128/jmbe.00100-21>

#### **Arizona State University, School of Life Sciences (2013 – 2019)**

- BIO/BCH/SES 494 Producing Research, Instructor of Record, Spring 2019

- Co-developed and co-taught a 1-credit course-based undergraduate research experience (CURE) for 7 students in biology and biochemistry. This is the fourth course in a four-semester sequence of courses aimed to support undergraduate transfer students as they engage in scientific research. This course guides students as they finish their final semester of undergraduate research and focus on developing research products including posters, presentations, and manuscripts. The 4-course sequence (Learning about research, Entering research, Advising research, and Producing research) resulted in a publication in the journal PLoS One with all 16 students as co-authors and myself as first author.
- **Spring 2019 course publication:**
  - PLoS One:  
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0220186>
- BIO/BCH/SES 494 Entering Research, Instructor of Record, Spring 2018, Spring 2019
  - Co-developed and co-taught a 1-credit course-based undergraduate research experience (CURE) for 7 students in biology and biochemistry. This is the second course in a four-semester sequence of courses aimed to support undergraduate transfer students as they engage in scientific research. This course guides students as they enter their first basic science research experience. Additionally, students continue to conduct education research by exploring a novel research question with the aim to publish their findings.
- BIO/SES 494 Advising Research, Instructor of Record, Fall 2018
  - Co-developed and co-taught a 1-credit course-based undergraduate research experience (CURE) for 8 students in biology and geosciences. This is the third course in a four-semester sequence aimed to support undergraduate transfer students as they engage in scientific research. As a class, students continue an education research project, investigating a novel research question with the aim to publish their findings.
- BIO/BCH/PHY 494 Learning about Research, Instructor of Record, Fall 2017, Fall 2018
  - Co-developed and co-taught a 3-credit course-based undergraduate research experience (CURE) for ~10 students in biology, biochemistry, geosciences, and physics. This is the first course in a four-semester sequence of courses aimed to support undergraduate transfer students as they engage in scientific research. This course prepares students to conduct scientific research through engaging in a science education research project. As a class, students explore a novel research question with the aim to publish their findings.
- BIO 360 Animal Physiology, Instructor of Record, Fall 2017
  - Co-taught a 300-person, 3-credit, upper-level course on animal physiology with an emphasis on human physiology. This course was taught to biology majors in an active learning way. I taught a unit on muscle physiology and a unit on metabolism and diabetes.
- BIO 494/594 Biology Education Research, Instructor of Record, Spring 2017
  - Co-developed and co-taught a 3-credit course-based research experience (CRE) in biology education research to 16 undergraduate and graduate students. As a class, students explored a novel research question with the aim to publish their findings. We

successfully completed the project and our manuscript was published in PLoS One with all 16 students as co-authors and myself as first author.

- **Spring 2017 course publications:**
  - *PLoS One:*  
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0201258>
- BIO 189 Life Sciences Career Paths, Instructor of Record, Fall 2015 and Fall 2016
  - Co-developed and co-taught a 1-credit course to ~35 academically underprepared first-semester biology majors that was an extension of the Bio Bridge early start program. The focus of course was on specialized topics in biology and I taught a five-week module on infectious diseases.
- BIO 194 Bio Bridge Early Start Program, Instructor of Record, Summer 2014, Summer 2015, Summer 2016
  - Co-developed and co-taught a 3-credit biology course to ~35 students as part of an early start program for academically underprepared incoming biology majors. The purpose of this course was to prepare students for introductory biology. I taught modules on thinking like a scientist, career options in biology, and academic success strategies.
- BIO 360 Animal Physiology, Teaching Assistant, Fall 2015
  - Teaching assistant for a 200 person, 3-credit, upper-level course focused on animal physiology with an emphasis on human physiology. Co-developed and taught one lesson to three sections of ~65 students each, which was later published as a CourseSource article. Facilitated active learning in weekly classes and discussion sessions and wrote exam questions.
- BIO 294 Advanced Career Preparation in Health and Medicine, Instructor of Record, Spring 2014, Spring 2015, Spring 2016
  - Developed and taught a 1-credit course to ~30 upper-level students that focused on enhancing students' scientific thinking and preparing students for careers in health and medicine.
- BIO 189 Career Preparation in Health and Medicine, Instructor of Record, Fall 2013, Fall 2014
  - Developed and taught a 1-credit course to ~36 introductory biology students that focused on enhancing their scientific thinking and familiarizing students with careers in health and medicine.

### **Guest lectures**

- Syracuse University. Discussion about course-based undergraduate research experiences.
- University of Tennessee Knoxville. Training session for introductory biology teaching assistants.
  - Taught a guest lecture on the importance of using student names in high enrollment biology courses

### **MENTORSHIP EXPERIENCE**

**Primary mentorship as a faculty member, Arizona State University**

**All 5 graduate students were awarded NSF GRFPs**

- Teona Savic, undergraduate researcher, 2024 - present

- Felicity Miranda, Biology & Society 4+1 Master's student, 2023 - present
- Hayleigh Shaw, ASU Online Biological Sciences undergraduate researcher, 2023 – present
- Olivia Davis, NSF-funded Biology Education postdoc, 2023 - present
- Kimberly Zsuffa, ASU Online Biological Sciences 4 +1 Master's student, 2023 - present
- Sarah Clark, Biological Sciences Barrett Honors student, 2023 - 2024
- Mary Kahraman, Biological Sciences undergraduate researcher who graduated and became a research assistant in the lab, 2022 - present
- Parth Bhandari, Biochemistry undergraduate researcher, 2022 – present
  - Mentored research has led to 1 publication
- Margaret Barstow, ASU Online Biological Sciences student and undergraduate researcher 2022-2024
  - Mentored research has led to 1 publication and 1 under review
- Jynx Pigart Coleman (*NSF GRFP recipient*), Biology & Society Ph.D. student- committee chair, 2022 – present
  - Mentored research has led to 1 paper and 1 manuscript under review
- Tala Alaghi, Biological Sciences Barrett Honors student- committee chair, 2021 – present
  - Mentored research has led to 1 publication
  - Next position: Medical student the University of Arizona College of Medicine Phoenix
- Faith Cisneros, Biological Sciences undergraduate researcher, 2022
- Jennifer Norton, Barrett Honors Engineering student- committee chair, 2021 – 2022
  - Next position: Compliance Engineer at Microchip Technology
- Linzi Kennedy- Biological Sciences undergraduate researcher- 2020-2021
  - Mentored research has led to 1 manuscript under review
- Tasneem Mohammed (*NSF GRFP recipient*), Biology & Society undergraduate researcher (2020 – 2021), Biology & Society 4 + 1 Master's student (2021- 2022), Biology & Society Ph.D. student- committee chair, 2022 – present
  - Mentored research has led to 7 publications and 2 manuscripts under review
- Carly Busch (*NSF GRFP recipient*), Biology & Society Ph.D. graduate student- committee chair, 2020 – 2024
  - Mentored research has led to 13 publications and 3 manuscripts under review
  - Next position: NSF STEM Education Postdoctoral Fellow at the University of Washington
- Erika Nadile, Biology & Society Ph.D. graduate student- committee co-chair, 2020 – 2024
  - Mentored research has led to 7 publications
  - Next position: Assistant Director of STEM Education, Searle Center for Advancing Learning and Teaching, Northwestern University
- Anna Abraham, Biological Sciences Barrett Honors student- committee member, 2020 – present
  - Mentored research has led to 2 publications.
  - Next position: Medical student at the University of Arizona College of Medicine- Phoenix
- Nicholas Wiesenthal (*NSF GRFP recipient*), UCF Biology undergraduate researcher (2019 – 2021) & ASU Biology & Society Master's student- committee chair 2021 - 2022
  - Mentored research has led to 6 publications and 3 under review
  - Next positions: Qualitative Fieldwork Specialist at the National Research Group, Consumer Insight Senior Analyst at The Walt Disney Company
- Rachel Scott, Biological Sciences undergraduate student, 2018 – 2022
  - Mentored research led to 3 publications.



- Logan Gin (*NSF GRFP recipient*), Biology & Society Ph.D. student- committee co-chair, 2017 - 2022
  - Mentored research has led to 16 publications and 3 under review
  - Next position: Assistant Director of STEM Education, Sheridan Center for Teaching and Learning, Brown University

#### **Committee-level mentorship, Arizona State University**

- Heather Hewitt, Astrophysics Ph.D. student- committee member, 2024 - present
- Elizabeth Schriener, University of Memphis Ph.D. student- external committee member, 2023 – present
- Ren Dickson- Barrett Honors Thesis student- second reader, 2023 – present
- Cindy Vargas, Environmental Life Science Ph.D. student- committee member, 2021- present
  - Mentored research led to 4 publications.
- Baylee Edwards, Master’s and Ph.D. Biology and Society graduate student- committee member, Master’s 2020 – 2022, 2022 - current
  - Mentored research has led to 1 publication.
- Danielle Alarid, Biology Master’s student- committee member, 2022 - 2023
- Taya Misheva, Ph.D. Biology and Society graduate student- committee member, 2019 – 2023

#### **CURE students who continued conducting research in the lab, Arizona State University**

- Cindy Vargas, Environmental Life Sciences PhD student, 2020- 2022
  - Mentored research led to 4 publications
- Madison Witt, undergraduate SOLS student, 2020- 2022
  - Mentored research led to 2 publications
- Missy Tran, undergraduate SOLS student, 2020- 2022
  - Mentored research led to 2 publications
- Joseph Gazing Wolf, Environmental Life Sciences PhD student, 2020- 2022
  - Mentored research led to 2 publications
- Danielle Brister, undergraduate SOLS student, 2020- 2022
  - Mentored research led to 2 publications

#### **Trainees mentored as a faculty member, University of Central Florida**

- Isabella Ferriera, undergraduate student, 2019 – 2020
  - Mentored research led to 3 publications.
- Lorena Parilla, undergraduate student, 2019 - 2020
- Jordan Dowell, ecology graduate student, 2019

#### **Trainees mentored as a graduate student or post-doc in biology education research, Arizona State University**

- Jacquie Cala, graduate student, 2016 – 2019
  - Mentored research led to 5 publications.
- Virginia Downing, graduate student, 2016 – 2019
  - Mentored research led to 2 publications.
- Michelle Stephens, undergraduate student, 2017 – 2018
  - Mentored research led to 4 publications.
- Taija Hendrix, undergraduate student, 2017 – 2018
  - Mentored research led to 2 publications.

- Austin Huang, undergraduate student, 2016-2017
  - Mentored research led to 1 publication.
- Kayla Campbell, undergraduate student, 2016 – 2017
- Brian Haney, graduate student, 2015-2016
  - Mentored research led to 1 publication.
- Anna Krieg, undergraduate student, Honors thesis student, 2015 – 2017
  - Mentored research led to 3 publications.
- Michael Ashley, undergraduate student, 2015 – 2017
  - Mentored research led to 4 publications.
- Cyril Wassef, undergraduate student, Honors thesis student 2015 – 2016
- Kate Bergovy, undergraduate student, 2015

### **Mentor for UCF LGBTQ+ Alliance Mentoring Program (2019 – 2020)**

- Served as an LGBTQ+ academic mentor for two LGBTQ+ undergraduates during the academic year

### **Director of Activities and Engagement, UCLA School of Theater Film and Television and US Performing Arts (2012)**

- Coordinated weekly activities for groups of 300+ incoming college students and mentored 15 students each week over a three-month period

### **Trainee awards**

#### 2024

- Jynx Pigart- 3<sup>rd</sup> place in the Institute for Social Science Research (ISSR) Poster Contest Completed Research Category
- Jynx Pigart- 2<sup>nd</sup> Place in the ASU SOLS Research Poster Showcase
- Tasneem Mohammed- SABER Bill Wood Graduate Student Talk Award
- Olivia Davis- NSF STEM Education Individual Postdoctoral Research Fellowship
- Carly Busch- NSF STEM Education Individual Postdoctoral Research Fellowship
- Tasneem Mohammed- Q1 & Q3 SOLS Travel Award to attend the 2024 APS and SABER conferences.

#### 2023

- Jynx Pigart- Gordon Research Conference Biology Education Travel Award
- Jynx Pigart- ASU School of Life Sciences Graduate Student Travel Award
- Tasneem Mohammed- Q1 SOLS Travel Award to attend the 2023 SABER annual meeting.
- Margaret Barstow- ASU SOLUR third prize in the biology education category
- Mary Kahraman- ASU SOLUR third prize in the biology education category
- Carly Busch- Institute for Social Science Research 2<sup>nd</sup> Place in the Completed Research Category
- Carly Busch- Finalist for 2023 AAAS Student Poster Competition in the Social Sciences category

#### 2022

- Jynx Pigart-Coleman- Awarded NSF GRFP
- Nicholas Wiesenthal- Awarded NSF GRFP
- Tasneem Mohammed- Awarded NSF GRFP

- Tasneem Mohammed- Fall 2021/Spring 2022 Graduate College Enrichment Fellowship (GCEF)- full funding for first year of her graduate program
- Carly Busch- SABER society Graduate Student Travel Award
- Jynx Pigart-Coleman- ASU Graduate College Q3 Travel Award for SABER West
- Nicholas Wiesenthal- SABER society Graduate Student Travel Award
- Anna Abraham- Student of the Year for Biological Sciences- Biomedical Sciences
- Anna Abraham- American Physiological Society Horowitz Research Excellence Award
- Anna Abraham- American Physiological Society Horowitz Outstanding Undergraduate Abstract Award
- Carly Busch- Graduate 1<sup>st</sup> place winner of the 2022 AAAS Student Poster Competition in the Social Sciences category
- Carly Busch- Graduate College Travel Award for the Society for Integrative and Comparative Biology annual meeting, SABER West, and SABER.

## 2021

- Logan Gin- The College Outstanding Graduate- Selected out of all PhD students in the largest college at Arizona State University
- Anna Abraham- Selected as 2021 The College Student Leader by ASU's College of Liberal Arts and Sciences
- Carly Busch- Graduate College Online/Remote Travel Award for the American Chemical Society Resilience of Chemistry, for the Society for the Advancement of Biology Education Research, and for Experimental Biology 2021 Conference
- Tasneem Mohammed- Fall 2021/Spring 2022 Graduate College Fellowship (GCF)- full funding for her final year of the 4 + 1 program.
- Carly Busch- Awarded 2021 Teaching Section Research Recognition Award, Experimental Biology 2021 Conference
- Erika Nadile- Awarded 1<sup>st</sup> prize in the AAAS Student Competition- Social Science Division
- Erika Nadile- Awarded first prize at NABT Poster Competition
- Carly Busch- Awarded NSF GRFP

## **ASSESSMENT**

***\*Performed as Director of Evaluation for the Research for Inclusive STEM Education (RISE)***

***Center:*** For each evaluation, the RISE Center assessment team creates the assessment, collects and analyzes the data, and provides a summary for the respective effort unless otherwise noted.

- Yale STEM Project Evaluation and Research Lab- student buy-in project, 2023
  - Served as expert reviewer by providing feedback on a list of potential moderators of student-buy in to evidence-based teaching.
- Equitable Classroom Discussion Observation Protocol, 2023
  - Served as expert reviewer by providing feedback on a draft of the Equitable Classroom Discussion Observation protocol by Lin Yan and colleagues in the Learning, Literacies, and Technologies sect of the Mary Lou Fulton Teachers College.
- ASU Evolution CURE\*, 2022, 2023
  - Assessed extent to which CURE incorporated collaboration, iteration and discovery/broad relevance in addition to pre-post gains in undergraduate research self-efficacy, science identity, science community values, interest in a research career, and a career in science. Also measured student cognitive and emotional ownership as it related to their research project.

- ASU Bioinformatics CURE\*, 2022, 2023
  - Assessed extent to which CURE incorporated collaboration, iteration and discovery/broad relevance in addition to pre-post gains in undergraduate research self-efficacy, science identity, science community values, interest in a research career, and a career in science. Also measured student cognitive and emotional ownership as it related to their research project.
- ASU DEI Biocollections Scholars Program\*, 2021, 2022
  - Assessed gains in nature-relatedness, science career familiarity, belonging, research self-efficacy, science identity, and science community values for this opportunity for students who are underrepresented in biodiversity science to participate in natural history collections research.
- ASU Animal Behavior removal of hetero and gender-normative content\*, 2021
  - Assisted the teaching team with the evaluation of undergraduates' perceptions of typical animal behavior content vs content that had been redesigned to be inclusive of all gender and LGBTQ+ identities.
- Consultant for Stetson University CURE assessment stemming from an NSF IUSE grant, 2021

## **LEADERSHIP**

### ***Disciplinary***

- Member of the American Society of Cell Biology (ASCB) LGBTQ+ Committee, Survey sub-committee chair (2019 – present)
- Society for the Advancement of Biology Education Research (SABER) Awards Committee co-chair (2019- 2023)
- Mentor for APS Physiology Summit Education Workshop leader for the publishing in education section (2023)
- Panelist for American Society of Biochemistry and Molecular Biology (ASBMB) LinkedIn Wellness Chat 2023 (2023)
- Lead mentor for the APS Center for Physiology Education's inaugural workshop at the American Physiology Summit (2022)
- SABER LGBTQ+ affinity group leader for SABER Action Group for Racial Justice during the 2020 annual meeting (2020)
- Panelist for CUREs in the Time of COVID19. American Society of Cell Biology, Cell Biology Education, Life Sciences Education, CUREnet (2020)
- Undergraduate Biology Education Research, Gordon Research Conference discussion leader for "Changing Identities and Demographics in Undergraduate Biology Education" session (June 2019)
- Mentor for NSF Community College Biology Instructor Network to support Inquiry into Teaching and Education Scholarship (CC Bio INSITES) mentor (2019 – 2021).

### ***Institutional***

- Director of Mental Health Division of ASU's RISE Center (2023 – present)
- Director of Evaluation for ASU's RISE Center (2021 – present)

### ***Departmental***

- Co-lead for the Reimagining SOLS Working Group on Promoting Research Interactions Arizona State University School of Life Sciences (2023 – present)
- Biology and Society Graduate Director of the Biology Education Research Program (2021 – present)

## **PROFESSIONAL SERVICE**

### ***Disciplinary***

- Panel service for NSF (2020, 2021, 2022, 2023)
- Ad hoc reviewer for *Heliyon* (2023 – present), *Integrative and Comparative Biology* (2023 – present), *BioScience* (2021 – present), *Journal of American College Health* (2021 – present), *PNAS* (2020 – present), *PLoS One* (2019 – present), *Studies in Higher Education* (2019 – present), *Journal for STEM Education Research* (2019 – present), *International Journal of STEM Education* (2017 – present), *Wildlife Society Bulletin* (2017 – present), *CBE: Life Sciences Education* (2016 – present)
- Member of the AAAS Multidisciplinary Working Group on Disability Inclusion and Anti-Ableism in STEMM. (2024 – present)
- Editor for National Academies Sciences Engineering Medicine Consensus Study Product: Equitable and Effective Teaching in Undergraduate STEM Education: A Framework for Institutions, Educators and Disciplines (2023)
- Member of the Society for Advancement of Biology Education Research (SABER) Diversity and Inclusion committee (2018- 2020)

### ***Institutional***

- Arizona State University Be CAREER Ready panelist (2023)
- Member of Mental Health Sub Committee to the ASU Health Services Advisory Committee (2023 – present)
- Natural Sciences faculty committee member to review the OURS seed-funding proposals for spring 2023 cycle
- Faculty advisor for Arizona State University Pitchforks a cappella group (2023 – present)
- Faculty partner for University of Central Florida Out in STEM (oSTEM) (2019 – 2020)

### ***Departmental***

- Interviewer for SOLUR pre-med mock interviews (2023)
- BioBridge Mental Health workshop, lead my grad student Tasneem Mohammed (2023)
- Member of School of Life Sciences Conservation Biology Lecturer target search committee (2022)
- Member of School of Life Sciences Director search committee (2021 – 2022)
- Member of School of Life Sciences target search committee (2021)
- Member of School of Life Sciences Physiology Lecturer search committee (2021)
- Keynote panelist for the ASU School of Life Sciences SOLUR Symposium (2021)
- Led a virtual Coffee Chat for the 2<sup>nd</sup> Annual BioSci Southwest Symposium on how anxiety and depression affect graduate students (2020)
- Member of UCF Department of Biology's Undergraduate Programs Committee (2020)

## **AWARDS and RECOGNITIONS**

- Arizona State University Faculty Women's Association Outstanding Faculty Mentor Early Career Award (2024). <https://sols.asu.edu/sols-faculty-graduate-student-earn-fwa-awards-mentorship-research>
- The Online Undergraduate Research Scholars program awarded ASU's President's Award for Innovation (2023)
  - Recognized for being a part of the initial committee contributing to the design of the OURS program and as a faculty member leading an OURS Program experience.
- American Society of Cell Biology [Member Spotlight](#)
- ASU Teacher of Impact Award (2023)

- Featured in the Aug. 2022 ASCB Newsletter: [Reflections on Pride 2022](#)
- Featured on the 2022 NBC PRIDE 30 list. [NBC PRIDE 30: The new generation](#) features a new generation of LGBTQ+ leaders, creators, and newsmakers.
- Teaching of Physiology Section New Investigator Award, American Physiology Society (2022)
- Featured in UCF's Faculty Center for Teaching and Learning Faculty SOTL Activity: [Scholarship of Teaching and Learning Activity](#) (2019)
- Work with the NSF S-STEM grant featured by Course Hero in "[How to Enrich the Research Experience of Transfer Students](#)" (2019)
- Featured in the University of Leicester Department of Physics and Astronomy's showcase of LGBT+ identifying scientists (2019)
- AAAS/Sciencscience Program for Excellence in Science (2018)
- ASU Faculty Women's Association (FWA) Distinguished Graduate Student Award (2018)
- ASU College of Liberal Arts and Sciences (CLAS) Graduate Excellence Award (2018)
- ASU School of Life Sciences Innovative Teaching Award (2018)
- ASU Sun Devil Award for Service (2018)
- Featured on ASU Now as one of ASU's outstanding graduates: *Biology PhD Grad Gains International Recognition for Her Research in Final Week of School* (2018)
- ASU Graduate and Professional Student Association (GPSA) Teaching Excellence Award (2017)
- iEMBER Best Lightening Talk Award (2017)
- ASU College of Liberal Arts and Sciences (CLAS) Graduate Excellence Award (2016)
- University of Arizona College of Medicine-Phoenix Academic Accomplishments Tuition Scholarship (2011 – 2012)

## **TRAVEL AWARDS**

### **Awarded 16 travel awards to attend meetings or to visit other institutions**

- Florida International University Advance Women, Equity and Diversity travel award, \$700, October 2019
- LGBTQ+ Scientist Travel Award to the 2018 American Society of Cell Biology (ASCB) Annual Meeting, \$600, September 2018
- ASU School of Life Sciences (SOLS) Graduate Student Travel Award, \$400, April 2018
- Undergraduate Biology Education Gordon Research Conferences Travel Stipend, \$500, July 2017
- ASU School of Life Sciences Undergraduate Programs Travel Stipend, \$500, July 2017
- ASU Graduate & Professional Student Association (GPSA) Travel Grant, \$950, June 2017
- ASU School of Life Sciences (SOLS) Graduate Student Travel Award, \$400, June 2017
- ASU Graduate College Travel Award, \$500, June 2017
- ASU Center for Evolutionary Medicine Trainee Travel Grant, \$500, June 2017
- Environment and Metrics in Biology Education and Research (EMBER) Conference Travel Award, \$600, June 2017
- ASU Graduate & Professional Student Association (GPSA) Travel Grant, \$450, July 2016
- ASU School of Life Sciences (SOLS) Graduate Student Travel Award, \$400, July 2016
- American Society for Biochemistry and Molecular Biology (ASBMB) Graduate Travel Award, \$1000, April 2016
- ASU Graduate & Professional Student Association (GPSA) Travel Grant, \$632, December 2015
- ASU School of Life Sciences (SOLS) Graduate Student Travel Award, \$400, July 2015

- National Association of Advisors for the Health Professions (NAAHP) Travel Grant, \$610, June 2014

### **PROFESSIONAL SOCIETY MEMBERSHIPS**

- LGBTQ+ Leaders in Higher Education (2023 – present)
- American Physiological Society (APS) (2021- present)
- American Society of Microbiology (ASM) (2021 – present)
- American Association for the Advancement of Science (2018 – present)
- Out in STEM (OSTEM) (2016 – present)
- American Society of Cell Biology (ASCB) (2016 – present)
- Society for the Advancement of Biology Education Research (SABER) (2014 – present)
- Inclusive Environments and Metrics for Biology Education Research (iEMBER) (2017 – 2019)
- American Society of Biochemistry and Molecular Biology (ASBMB) (2016 – 2017)
- National Academic Advising Association (NACADA) (2013 –2017)
- ASU Council of Academic Advisors (CAA) (2013 – 2017)
- National Association of Advisors for the Health Professions (NAAHP) (2013 – 2015)