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Education

2006
Ph.D. in Insect Ecology
Cornell University

2002
M.Sc. in Economics & Management
Szt. Istvan University, Hungary

1999
M.Sc. in Zoology & Ecology
Uni. of Ag. Sciences, Hungary

Certificates

- Applied Quantitative and Qualitative Research Skills | UWE Bristol
- Alan Alda Center for Communicating Science | Stony Brook U.
- Faculty Leadership | Cornell U.
- Evidence-Based STEM Education | Vanderbilt U.
- Responsible Conduct of Research | U.S. Government
- Minnesota Ag. Traineeship | UMN

Awards

Honorary Professor, Hungarian University of Agriculture and Life Sciences

SUNY Chancellor's Award for Excellence in Teaching

North American Colleges and Teachers of Agriculture (NACTA) Teaching Award of Merit

Cornell Core Value Staff Award

Merrill Presidential Scholar Advising Award

Outstanding Graduate Teaching Assistant in Biology Award

Mark A. Sarvary

Senior Lecturer
Dept. of Neurobiology and Behavior

My teaching philosophy and educational research in biology and science communication focus on student-centered approaches to address contemporary challenges in higher education. With over two decades of interdisciplinary expertise spanning the biological sciences, social sciences, and management, I have successfully led a variety of projects. I promote the use of open science and engaged scholarship to make scientific information widely accessible, and I cultivate a supportive and effective learning environment in my classes. I actively contribute to discussions on improving higher education, both on the Cornell campus and at national and international levels. I recognize the challenges some students face in the hidden curriculum and apply the Universal Design for Learning principles to eliminate obstacles to learning. My education research directly supports my teaching, helping students develop autonomy, maintain motivation, manage expectations, and build valuable transferable skills such as critical thinking, science communication, and scientific literacy. I am dedicated to mentoring undergraduate and graduate teaching assistants, preparing them with the tools required for successful careers. My teaching, mentoring, leadership, and research efforts have been recognized by multiple awards.

Experience

2011- Cornell University, Ithaca, NY

Director of the Investigative Biology Teaching laboratories

- Develop, evaluate, and publish new pedagogical methods in biology, science literacy, and science communication.
- Develop curriculum for and teach five courses (BioG1500, BioG3500, BioG6500, BioG4980, Biog1250) to ~1000 STEM students each year.
- Supervise four laboratory staff and education research postdoctoral associates.
- Provide professional development and supervision for 12 graduate student laboratory instructors (Ph.D. & M.S.) annually.
- Provide pedagogy training and supervision for 30 undergraduate teaching assistants every year.
- Serve on college and national committees and advisory boards.
- Manage budgets and prepare grants to secure internal and external funding.
- Lead the externally funded "Summer Research Internship in Hungary" program and the "Science Communication and Public Engagement" undergraduate minor and advise the students in these programs (~30 students annually).

2010 - 2011 Ithaca College, Ithaca, NY

Lecturer and Laboratory instructor in Biology, Ithaca College

- Develop and hold lectures to ~200 biology students in Fundamentals of Biology.
- Teach laboratory sections to non-biology majors.
- Develop curriculum, write exams, grade, and hold office hours.

2009 - 2011 Cornell University, Ithaca, NY

Postdoctoral Research Associate

- Design and conduct experiments in plant-inset interactions at the Dept. of Ecology and Evolutionary Biology (P.I. Kessler) and the Dept. of Entomology (P.I. Hajek).
- Publish peer-reviewed journal articles and present at conferences.
- Mentor graduate and undergraduate research assistants.

2008 - 2009 Cornell University, Ithaca, NY

Education Postdoctoral Fellow

- Giving lectures to a 700-student biology core course using active learning.
- Managing 18-21 graduate student teaching assistants.
- Assisting the main course instructor with technology setup (A/V, Clickers, etc.)
- Developing and grading exams.

2006 - 2008 Swiss Federal Institute of Technology (ETH), Zurich, CH

Postdoctoral Research Associate

- Design and conduct lab and field experiments in plant-insect interactions (P.I. Dorn)
- Research liaison between the USDA FL and GA stations and ETH Zurich.
- Publications, presentations, and research assistant mentoring.

2001 - 2006 Cornell University, Ithaca, NY

Laboratory Instructor in Introductory Biology

- Teach laboratory sections to biological sciences majors.
- Develop curriculum, write exams, grade, and hold office hours.

Updated: October, 2025

Instructor of Record

2011- now Cornell University, Ithaca, NY

Investigative Biology Laboratory (BioG 1500)

- This inquiry-based laboratory course is designed for biology majors to provide lab experience emphasizing processes of scientific investigations and promote communication, literacy, and collaboration in science. Students gain expertise in methods, including instrumentation, that biologists use to construct new knowledge.
- ~900 undergraduates/year

2018- now Cornell University, Ithaca, NY

Pedagogy, active learning and education research in biology (BioG 6500)

- This course is designed for graduate student instructors interested in teaching in the biological sciences. This course provides transferable pedagogical skills, focusing on discipline-based education research, active learning, undergraduate TA mentoring, metacognition and best teaching practices in biology courses.
- ~18 Ph.D. & M.S. student/year

2015- now Cornell University, Ithaca, NY

Evidence-based Undergraduate Teaching Experience (BioG 4980)

- This course uses evidence-based pedagogical techniques to prepare undergraduate teaching assistants to become better instructors.
- ~30 undergraduates/year

2017- now Cornell University, Ithaca, NY

Introduction to Applied Science Communication: Digital Platforms and Public Engagement (BioG 3500)

- This course was designed for STEM undergraduates to provide the necessary skills to engage the public in a scientific dialogue using a science communication strategy plan. Students gain hands-on experience with digital, oral, and visual communication platforms and apply the components of science literacy.
- ~35 undergraduates/year

2014-16 Cornell University, Ithaca, NY

Wikipedia Editing for Biologists (BioG 1250)

- This course offers a unique opportunity to enhance students' scientific literacy and help them become experts in biology topics of their interest. They write and edit biology related Wikipedia entries and use Wikipedia as a learning tool to develop stronger critical thinking and information literacy skills.
- ~15 undergraduates/year

2013-14 Cornell University, Ithaca, NY

Disturbance Ecology (BioG 1250)

- This course is designed for students interested in ecology, ecosystems, trophic interactions, and factors that change them. Students discuss how anthropogenic and natural effects reshape ecosystems and change biodiversity. They examine the impact of natural disturbances such as wildfires, hurricanes, and insect outbreaks, as well as anthropogenic disturbances such as increased carbon emissions, forest clearing, and the introduction of exotic species.
- ~20 undergraduates/year

2010-11 Ithaca College, Ithaca, NY

Fundamentals of Biology (BioL 11900)

- An introductory biology course covering cell biology through evolution, with lectures and hands-on labs using dissections, instrumentation, and active learning methods.
- ~200 undergraduates/year

2001-06 Cornell University, Ithaca, NY

Introductory Biology Lab (Bio 1101-1104)

- The laboratory portion of this two-semester-long course used group activities to teach students the most important skills in a biology laboratory. Exercises included dissections, experimental design and science communication.
- ~80 undergraduates/year

Honors, Award and Grants

2025
- Honorary Professorship, Hungarian University of Agriculture and Life Sciences

2023
- SUNY Chancellor's Award for Excellence in Teaching

2022
- Continuing an international research internship for undergraduates between Cornell University (USA) and the University of Agriculture and Life Sciences (Hungary). Erasmus+ Credit Mobility, *32,320 Euros*.

2021
- Individual Innovation Award to develop an Active Applied Critical Thinking module for Gateway Courses. Cornell University Center for Teaching Innovation. *20,000 USD*.

2020
- Continuing an international research internship for undergraduates between Cornell University (USA) and Szt. Istvan University (Hungary). Erasmus+ Credit Mobility, *25,000 Euros*.
- CALS Active Learning Initiative to develop student-centered remote teaching using evidence-based practices in the Investigative Biology Teaching Laboratories. College of Agriculture and Life Sciences, *37,000 USD*.

2019
- Carl Sagan Institute Fellow
- Developing a Science Communication minor. Office of Engagement Initiatives, *80,000 USD*.
- Whisper room recording studio. Student Assembly Infrastructure Fund, *9,470 USD*.

2018
- Individual Innovation Award to develop multi-modal communication opportunities for STEM students. Cornell University Center for Teaching Innovation. *14,823 USD*.
- Atkinson Center for a Sustainable Future Fellow, David R. Atkinson Center for a Sustainable Future
- Active Learning Initiative to support Developing and Assessing Critical Thinking Skills in the Investigative Biology Teaching Laboratories. College of Agriculture and Life Sciences, *125,000 USD*.
- Faculty Fellow for Engaged Scholarship. Office of Engagement Initiatives, *2,000 USD*.
- Merrill Presidential Scholar- most influential faculty, Cornell University.
- Travel support to PCST 2018 in Dunedin, NZ. Office of Engagement Initiatives, *5,000 USD*.
- Establishing an international research internship for undergraduates between Cornell University (USA) and Szt. Istvan University (Hungary). Erasmus+ Credit Mobility, *25,000 Euros*.
- Planning of a Science (STEM) Communication minor. Office of Engagement Initiatives, *10,000 USD*.

2017
- Collaboration with a science café, as a community partner in science education. Office of Engagement Initiatives, *5,000 USD*.
- North American Colleges and Teachers of Agriculture (NACTA) Teaching Award of Merit

2013
- College of Agriculture and Life Sciences, Core Value Staff Team Award, Cornell University

2005
- College of Agriculture and Life Sciences, Outstanding Teaching Assistant Award, Cornell University

2004
- Cornell Graduate School Travel Grants to the International Congress of Entomology, Brisbane, Australia

2003
- Paul J. Chapman Graduate Student Fellowship, New York State Agricultural Experimental Station

2002
- President's 1st prize, Student Poster Competition, ESA-EB Annual Meeting, Ocean City, MD
- Rawlins Graduate Student Endowment Travel Grant to the 3rd IOBC symposium, France

2001
- Rawlins Graduate Student Endowment Travel Grant to ESA Annual Meeting, San Diego, CA

1996
- University of MN, Minnesota Agricultural Student Trainee (MAST) Program Fellowship (18 months)

Advising

- Founder and Faculty advisor for the undergraduate minor "Science Communication and Public Engagement"
- Founder of the International research internship with the Hungarian University of Agriculture and Life Sciences
- Faculty advisor for the student club "State-of-the-Pod"
- Faculty advisor & founding member of the "Debate in Sciences and Health" Student Club
- Faculty advisor of the "Global Dental Brigades" Student Club
- First-year student advisor
- Junior, Sophomore, Senior advisor

Service

2025
- Provost's Working Group on Innovation in Assessment
- Science Communication Education Research Network

2024
- Climate Change & Sustainability Curriculum Working Group
- Molecular Biology and Genetics lecturer search commitee
- Cornelia Ye Outstanding Teaching Assistant Award, Center for Teaching Innovation
- Ethics in Life Sciences lecturer search committee

2023
- NSF's Improving Undergraduate STEM Education (IUSE) Program Committee

2022
- CALS Faculty and Staff Awards Nomination Review Committee
- Vice Provost's Onboarding team for the Director of the Health Careers Advising Office
- CALS Faculty Executive Committee
- Chair of the Keynote speaker committee, Society for the Advancement of Biology Education research (SABER)

2021
- Editor, Journal of Microbiology and Biology Education (JMBE) Themed Issue on Scientific Literacy.

2020
- Vice Provost of International Affair's Global Hubs Committee
- Vice Provost of Undergraduate Education's working group on lab and studio teaching during the pandemic.

2019
- Provost's Committee on Preparation for Online Teaching (C-POT)
- CALS learning objectives revision committee

2018
- CALS Committee on Support of Teaching and Learning (chair, 2021-22)
- Science Communication Planning Committee (chair)

2017
- Member, Public Communication of Science and Technology Society
- Cornell Community Engagement Logistics Working Group
- Cornell CALS Education Innovation Grant Committee
- Cornell CALS Learning Community organizing committee
- International Technology, Education and Development Conference Advisory Board

2016
- Judge. SPARK Talks-Scholars Present About Research & Knowledge. Cornell University.

2015
- Poster Competition Judge, AAAS Annual Meetings
- Member, American Association for the Advancement of Science
- Advising committee: CALS life science new teaching laboratory

2014
- Search committee: Director of Undergraduate Biology position

2013
- Biology Curriculum Committee / Core course Assessment Leader

2012
- Subject editor: Annals of the Entomological Society of America

2000
- Member, Association for Biology Laboratory Education
- Member, Entomological Society of America

Sarvary, M.A. (ed.). Investigative Biology: a laboratory text, Hayden-McNeil Publishing, Plymouth, MI. 2012- every semester

Ruesch, J., **M.A. Sarvary** (2025). Empowering Early Researchers: A Structured Approach to STEM Undergraduate Lab Readiness. CBE Life Sciences Education. (Submitted).

Sarvary, M.A., C. Schmidt (2025). Perceptions, Pedagogies, and Challenges in Critical Thinking Education. A faculty perspective. Frontiers in Education, (in review).

Schmidt, C., **M.A. Sarvary,** J. St. Juliana, C. Specht (2025). From Implicit to Explicit: Overcoming Common Barriers to Teaching Critical Thinking Through an Innovative Online Module. Frontiers in Education, (in review).

Shea, A., K.L. Pacion, N. Valle, **M.A. Sarvary** (2025). Data Literacy in the Age of AI: A Scoping Review of Post-Secondary Educational Interventions, and a Qualitative Synthesis of their Limitations. Educational Research Review, (in review).

Schmidt, C., M.A. Sarvary, G. Whitehouse, C. Reynolds, A. Fortin, and K. Wingert (2025). From Hidden to Highlighted: Teaching Transferable Skills in General Education. In: Shaping the Future of Higher Education (Eds: C.E. Watson & C.J. Keith), (in-print).

Bostrom, N., J. Ruesch, M.A. Sarvary, C. Carenen, B. Abel, B. Miller and M. Broscious (2025). Disrupted Gen Ed: Student-Centered Solutions to Shape the Future of Higher Education. In: Shaping the Future of Higher Education (Eds: C.E. Watson & C.J. Keith), Routledge, (in-print).

Sarvary, M.A., F.R. Castelli, M. Asgari, J. Ruesch (2025). Applying the mentor mindset to undergraduate and graduate student teaching assistant professional development in a laboratory course. Journal of Microbiology and Biology Education. Special Issue: Teaching Assistant Professional Development. DOI: https://doi.org/10.1128/jmbe.00049-25

Ruesch, J., **M.A. Sarvary** (2025). Instructors as communication strategists: using multimodal communication to successfully implement a new course policy on assignment extension due dates. Frontiers in Education. DOI: https://doi.org/10.3389/feduc.2025.1558758

Asgari, M., Cardace, A., **M.A. Sarvary** (2024) Demographic isolation and attitudes toward group work in student-selected lab groups. PloS One, DOI: https://doi.org/10.1371/journal.pone.0310918

Ruesch, J., **M.A. Sarvary** (2024). Structure and Flexibility: Systemic and explicit assignment extensions foster an inclusive learning environment. Frontiers in Education. DOI: https://doi.org/10.3389/feduc.2024.1324506

Gifford, KM, **M.A. Sarvary** (2023). Chapter 41: Using the Message Triangle to Distil Complex Research into a Story. In: Teaching Science Students to Communicate: A Practical Guide (Eds: Rowland, S & Kuchel, L.), Springer Nature Publishing, 978-3-030-91627-5

Kelp, N.C., M. McCartney, **M.A. Sarvary**, J.F. Schaffer and M.J. Wolyniak (2023). Developing Science Literacy in Students and Society: Theory, Research, and Practice. Journal of Microbiology and Biology Education. DOI: https://doi.org/10.1128/jmbe.00058-23

Sarvary, M.A., J. Ruesch (2023) A multi-step science literacy training framework in an introductory biology classroom: teaching how to find, evaluate, comprehend, and cite scientific evidence. Journal of Microbiology and Biology Education. Special Issue: Scientific Literacy. DOI: https://doi.org/10.1128/jmbe.00197-22

Education research & Teaching Publications (cont.)

Sarvary, M.A., F.R. Castelli, M. Asgari (2022). Undergraduates' experiences with online and in-person courses provide opportunities for improving student-centered biology laboratory instruction. Journal of Microbiology and Biology Education. Special Issue: Opportunities and Challenges of Online Instruction - Blurring the Lines Between Online and On-site Teaching and Learning. DOI:https://doi.org/10.1128/jmbe.00289-21

Asgari, M., Miles, A., Lisboa, S. and M.A. Sarvary (2021). "COPUS, PORTAAL, or DART? Classroom observation tool comparison from the instructor user's perspective". Frontiers in Education. DOI: https://doi.org/10.3389/feduc.2021.740344

Castelli, F.R., and M.A. Sarvary (2021). Why students do not turn their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. Ecology and Evolution. DOI: https://doi.org/10.1002/ece3.7123

C. Meaders., M.K. Smith, T. Boester, A. Bracy, B.A Couch, A.G Drake, S. Farooq, B. Khoda, C. Kinsland, A.K. Lane, S.E. Lindahl, W.H. Livingston, A. Maliwal, A. Mccormick, A.I. Morozov, J.L. Newell-Caito, K.J. Ruskin, **M.A. Sarvary**, M. Stains, J.R. St Juliana, S.R. Thomas, C. Van Es, E. Vinson, M.N. Vitousek and M.R. Stetzer (2021). What questions are on the minds of STEM undergraduate students and how can they be addressed? Frontiers in Education, DOI: https://doi.org/10.3389/feduc.2021.639338

Castelli, F.R., Asgari M. and **M. A. Sarvary** (2020). Benefits of the Undergraduate Teaching Assistant Experience in an Introductory Biology Laboratory Course and Other STEM Courses. Advances in Biology Laboratory Teaching, Publication of the Association for Biology Laboratory Education (ABLE), vol. 41., Article 61. (www.ableweb.org)

Megan Biango-Daniels & **M. A. Sarvary** (2020). A challenge in teaching scientific communication: academic experience does not improve undergraduates' ability to assess their or their peers' writing. Assessment & Evaluation in Higher Education, DOI: https://doi.org/10.1080/02602938.2020.1812512

Asgari, M., & **M.A. Sarvary** (2020). The Value of Undergraduate Teaching Assistants in Synchronous Online Learning Environments: 10 Steps That Can Make a Positive Change. The Teaching Professor, September 14, 2020. https://www.teachingprofessor.com

Olabisi, L.S., Schwarz, K., Lambert, K.F., Garlick, S., Zinnen, T., **M.A. Sarvary,** J. Shakalli, J. (2020). University Practices for Making Community-University Partnerships Work for All. Public Engagement Reflections of the American Association for the Advancement of Science. October 27. 2020. https://www.aaas.org/programs/center-public-engagement-science-and-technology/reflections/university-practices-making

Sarvary, M.A. and K.M. Gifford (2017). The benefits of a real-time web-based response system for enhancing engaged learning in classrooms and public science events. Journal of Undergraduate Neuroscience Education, 2017 vol. 15., issue 2. https://www.funjournal.org/901-2/

Deane-Coe, K.K., **M. A. Sarvary** and T.G. Owens (2017). Student performance along axes of concept novelty and complexity in introductory biology: lessons from a unique factorial approach to assessment. CBE Life Sciences Education., Vol. 16. No. 1. DOI: https://doi.org/10.1187/cbe.16-06-0195

Drott, M. and **M.A. Sarvary** (2016). Why did the snake cross the road? A Population Genetics and Habitat Conversation Case Study. National Center for Case Study Teaching in Science. https://www.nsta.org/ncss-case-study/why-did-snake-cross-road

Education research & Teaching Publications (cont.)

Sarvary, M.A. and K. M. Gifford (2016). Engaging Students in Large Classrooms: Turning Classical Lectures Into Dialogues Using Digital Pedagogy. Examples, Benefits and Pitfalls. Proceedings of the 8th annual International Conference on Education and New Learning Technologies (EduLearn16), pp. 7089-7097, doi:10.21125/edulearn.2016.0547.
https://library.iated.org/view/SARVARY2016ENG

Sarvary, M.A. (2015). How to make scientific paper reading fun: Journal club style role-playing to improve scientific literacy and reading comprehension skills in biology laboratories. Tested Studies for Laboratory Teaching, Peer-Reviewed Proceedings of the 35th Conference of the Association for Biology Laboratory Education (ABLE), vol. 36.

Sarvary, M.A. (2014). Biostatistics in the Classroom: Teaching Introductory Biology Student How to Use the Statistical Software 'R' Effectively. Tested Studies for Laboratory Teaching, Peer-Reviewed Proceedings of the 35th Conference of the Association for Biology Laboratory Education (ABLE), vol. 35., pp. 129-131. (www.ableweb.org)

Hester, L. L., **M. A. Sarvary,** and C. J. Ptak (2014). Mutation and Selection: An Exploration of Antibiotic Resistance in Serratia marcescens. Tested Studies for Laboratory Teaching, Peer-Reviewed Proceedings of the 35th Conference of the Association for Biology Laboratory Education (ABLE), vol. 35. pp. 98-132. (www.ableweb.org)

Sarvary, M.A. (2013). Test Bank revision, In: Biology of Humans: Concepts, Applications, and Issues, 5th edition by Judith Goodenough and Betty A. McGuire, Benjamin Cummings Publishing.

Sarvary, M.A. (2013). Study Guide revision, In: LIFE: The Science of Biology, 10thedition by Sadava et. al, W.H. Freeman Publishing.

Sarvary, M.A. (2011). Test Bank revision, In: Biology of Humans: Concepts, Applications, and Issues, 4th edition by Judith Goodenough and Betty A. McGuire, Benjamin Cummings Publishing.

Ecology Research Publications

Sarvary, M.A., K. Boroczky, M.F. Cooperband, R.A. Raguso, A.E. Hajek (2016). Investigating the effects of symbiotic fungi on the flight behaviour of Sirex noctilio (Hymenoptera: Siricidae). The Canadian Entomologist, 148(5), pp. 543–551.

Sarvary, M.A., M.F. Cooperband, A.E. Hajek (2015). The importance of olfactory and visual cues in developing better monitoring tools for Sirex noctilio (Hymenoptera: Siricidae). Agricultural and Forest Entomology, 17, 29-35.

Sarvary, M. A., H. Reissig, J. Nyrop (2010). Effects of natural enemies and host plants in wild and orchard habitats on the larval survival of Choristoneura rosaceana (Lepidoptera: Tortridicae). Biological control 55. 110–117

Sarvary, M.A., S. Hight, J. Carpenter, K. Bloem, S. Bloem, S. Dorn (2008). Identification of factors influencing flight performance of field-collected and laboratory-reared, overwintered and non-overwintered cactus moths fed with field-collected host plants. Environmental Entomology, 37: 1291-1299.

Sarvary, M.A., K. Bloem, S. Bloem, J. Carpenter, S. Hight, S. Dorn (2008). Diel flight pattern and flight performance of Cactoblastis cactorum (Berg) (Lepidoptera: Pyralidae) measured on a flight mill: the influence of age, gender, mating status and body size. Journal of Economic Entomology, 101: 314-324.

Ecology Research Publications (cont.)

Sarvary, M.A., H. Reissig, J. Nyrop (2007). Assessment of three techniques for measuring natural enemy inflicted mortality of leafroller larvae in commercial orchards. Biological Control, 41. 312-320

Sarvary, M.A., H. Reissig, J. Nyrop, K. M. Gifford (2007). Potential for conservation biological control of the obliquebanded leafroller (OBLR) Choristoneura rosaceana (Harris) in orchard systems managed with reduced-risk insecticides. Biological Control, 40. 37-47

Sarvary, M. A., H. Reissig, J. Nyrop (2004). Mortality of obliquebanded leafroller larvae due to natural enemies in orchards treated with conventional or reduced-risk insecticides. New York Fruit Quarterly, 12(4):23-26

Sarvary M. A., G. Bakonyi, V. Claassen (2000). Food preference of Hemileius initialis (Acari: Oribatidae) in the presence of endomycorrhizal fungi. Allattani Kozlemenyek (Zoology Journal of the Hungarian Biological Society), 85: 53-58

Invited talks & Workshops

2025
Workshop: Evidence-based pedagogies in the science communication classroom. Cottrell Scholars meeting, Tucson, AZ.
Poster: Science Communication Education for Undergraduates: Student Interest and Institution-Level Implementation Society for the Advancement of Biology Education Research (SABER) Annual Meeting, University of Minnesota
Workshop: Using the message triangle to distill complex research into a story. Cornell Grant Fellows Workshop series. Cornell University, CALS Research and Innovation Office.
Workshop: Evidence-based pedagogies in the science communication classroom. Public Communication of Science and Technology Conference. Aberdeen, Scotland.
Talk: Science Communication Education for Undergraduates: An Analysis of Student Interest and Institution-Level Implementation, Public Communication of Science and Technology Conference. Aberdeen, Scotland.
Workshop: Communicating Scientific Information to Non-Scientists. New York State Department of Environmental Conservation.
Panel discussion: Assessment Practices that Support Student Well-being. Provost's Working Group on Innovation in Assessment. Cornell University.

2024
Talk: A Foundation, not an Afterthought: Using Evidence-based Pedagogies to Integrate Science Communication Training into the STEM Curriculum. Discipline-based Science Education Research Speaker Series, U. of Pittsburgh.
Talk: Deadline improvements using a student-centered approach: Communicating and responding to student emergencies, ASM Conference for Undergraduate Educators, Pittsburgh, PA
Talk: Inspiring Curiosity and Combating Misinformation: The Sagan Effect Reimagined. Celebration of Carl Sagan's 90th birthday, Cornell University.
Workshop: Teaching Science Communication. German branch of the Fulbright-Cottrell community, Saarbrücken, Germany
Workshop: How to integrate science communication into your biology course using active learning. Society for the Advancement of Biology Education Research (SABER) Annual Meeting, University of Minnesota.
Talk: Bridging the Gap: Enhancing Research Lab Access Through Early Academic Pathway Intervention. Society for the Advancement of Biology Education Research (SABER) Annual Meeting, University of Minnesota.
Poster: A Multistep Science Literacy Training Framework in an Introductory Biology Classroom: Teaching How to Find, Evaluate, Comprehend, and Cite Scientific Evidence. Society for the Advancement of Biology Education Research (SABER) East Coast Meeting, RIT, Rochester, NY.

Invited talks & Workshops (cont.)

2023 **Talk:** Structure and flexibility: Assessing a student-centered extension deadline system in a large introductory biology course. Society for the Advancement of Biology Education Research (SABER) Annual Meeting, University of Minnesota.
Workshop: Evidence-based pedagogies in the science communication classroom. Public Communication of Science and Technology Conference. Rotterdam, The Netherlands.
Panel discussion: Systemic assignment extensions promote an inclusive classroom. CALS Lunch & Learn. Cornell University.
Talk: Disinterring Critical Thinking from the Introductory STEM Curriculum. American Association of Colleges and Universities. Conference on General Education, Pedagogy, and Assessment. New Orleans.

2022 **Talk:** What to keep from online learning: a student-centered approach to developing the "new normal.
Society for the Advancement of Biology Education Research (SABER) Annual Meeting, University of Minnesota.
Workshop: Fostering Critical Thinking. CALS Teaching Experience Workshop.
Workshop: Social media for Storytelling. Cornell's Center for Teaching Innovation Digital Storytelling Series.
Workshop: Science Communication Workshop, Dean's Leaders program, College of Veterinary Medicine, Cornell University.

2021 **Talk:** A Foundation, not an afterthought: diversifying training models to transform science communication education worldwide. An international roundtable discussion at the Public Communication of Science and Technology Conference (virtual).
Workshop: Active learning in the science communication classroom. Public Communication of Science and Technology Conference (virtual).
Talk: A challenge in teaching scientific communication: Academic experience does not improve undergraduates' ability to accurately assess their own or their peers' work. Society for the Advancement of Biology Education research (SABER) Annual meeting (virtual).
Poster: A challenge in teaching scientific communication: Academic experience does not improve undergraduates' ability to accurately assess their own or their peers' work. X-DBER conference at the University of Nebraska-Lincoln (virtual).

2020 **Talk:** Embracing students' creativity when teaching them how to communicate scientific information to the publics. CALS Learning Community lunch. Cornell University.
Talk: What criteria do students use to form research groups and how do these criteria relate to students' learning and attitude towards group work? Association of Colleges and Universities Biology Educators Annual Conference.
Talk: Why students do not turn on their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. Association of Colleges and Universities Biology Educators Annual Conference

2019 **Workshop:** Critical Thinking and Metacognition. CALS Teaching Experience Workshop.
Workshop: SciComm in the classroom. Cottrell Scholars Collaborative. American Chemical Society, Washington, D.C.
Workshop: Is your brand bland? Improve your digital footprint and learn how to use social media for science communication! Office of Undergraduate Biology research seminar. Cornell University

2018 **Talk:** Informal education via science cafes: promoting open science and enhancing scientific literacy. Open science: from values to practice. Building a roadmap for transformative change, Barcelona, Spain
Talk: Turning undergraduates into science storytellers. What are the best practices? Public Communication of Science and Technology Conference, Dunedin, New Zealand.
Talk: #CuSciStory: turning undergraduates into science storytellers via public engagement and digital platforms. American Association for the Advancement of Science, Annual meeting. Austin, TX.
Roundtable discussion: Science Communication Workshop for Graduate Students. COMM 5660.
Workshop: Maternal and Child Nutrition Research Forum, Science Communication workshop. "Is your brand bland? Flavor your nutrition sciences research with public engagement." Cornell University.

Invited talks & Workshops (cont.)

2017 **Talk:** Going beyond clickers: using a versatile web-based response system for engaging audiences in college classrooms and in public science events. The 9th annual International Conference on Education and New Learning Technologies (EduLearn17). Barcelona, Spain.

Workshop: Science Communication for the Graduate student/postdoc club “Advancing Science and Policy”.

Poster: From consumers to critical contributors: training the next generation of skeptical scientists through editing Wikipedia. American Association for the Advancement of Science, Annual meeting. Boston, MA

2016 **Talk**: Engaging Students in Large Classrooms: Turning Classical Lectures Into Dialogues Using Digital Pedagogy. Examples, Benefits and Pitfalls. The 8th annual International Conference on Education and New Learning Technologies (EduLearn16). Barcelona, Spain.

Talk: Going beyond clickers: using a versatile web-based response system for engaging students. Annual meeting of the National Center for Case Study Teaching in Science, Buffalo, NY.

Faculty panel: Cornell Undergraduate Research Board, Peer Mentorship Program.

2015 **Talk:** Benefits and expectations of undergraduate research. Cornell Undergraduate Research Board, Peer Mentorship Program.

Workshop: Science Café: make dissemination of science fun! Association for Biology Laboratory Education Annual Meeting. Eugene, OR.

2014 **Workshop:** How to make scientific paper reading fun: Journal club style role-playing to improve scientific literacy and reading comprehension skills in biology laboratories. Association for Biology Laboratory education annual meeting. Eugene, OR.

Workshop: How to prepare posters for the Cornell Undergraduate Research Board (CURB) Annual Undergraduate Spring Research Forum.

Talk: Exploring The Role Of Symbiotic Fungus Derived Volatiles In The Host-Finding Behavior Of Sirex noctilio And Sirex nigricornis (Hymenoptera: Siricidae). In: Roles of Biotic Interactions in Invasion Biology Symposium. Entomological Society of America Annual Meeting, Portland, OR

Talk: The Pest Side Story. In: Nimble Nozzles, Menacing Maggots, and Lovely Leafrollers: Honoring Harvey Reissig's Contributions to Fruit Pest Management, Entomological Society of America, Eastern Branch meeting, Williamsburg, VA.

2013 **Workshop:** How to prepare posters for the Cornell Undergraduate Research Board (CURB) Annual Undergraduate Fall & Spring Research Forum (multiple workshops).

Workshop: Using Statistical Software “R” in Biology Courses. Association for Biology Laboratory education annual meeting. Calgary, AB.

Workshop: Mutation and Selection: An Exploration of Antibiotic Resistance in Serratia marcescens. Association for Biology Laboratory education annual meeting. Calgary, AB.

Talk: No time to be neutral when invasive species jump continents: the Cactoblastis cactorum and Sirex noctilio stories. In: Strengthening the Connection between Continents –A Symposium Honoring Silvia Dorn's Impact on Applied Entomological Research, Entomological Society of America, Annual meeting, Austin, TX.

Talk: Attracting Sirex noctilio using visual and olfactory signals., 24th USDA Interagency Research Forum on Invasive Species, Annapolis, MD.

2012 **Workshop:** How to prepare posters for the Cornell Undergraduate Research Board (CURB) Annual Undergraduate Fall & Spring Research Forum (multiple workshops).

Workshop: Limiting Nutrient and Algal Growth: Designing An Individualized Project. Association for Biology Laboratory Education annual meeting. Chapel Hill, NC.

Talk: Trophic interactions in various agro-ecosystems., Department of Plant Protection Biology, SLU Alnarp, Sweden

Talk: The new introductory biology program at Cornell: what changed and how it was received., New York State Experimental Station, Geneva, NY