Angela Potochnik

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ACADEMIC EXPERTISE

Specializations: Philosophy of Science, Philosophy of Biology, History of Logical Empiricism
Competencies: History of Analytic Philosophy, Logic, Metaphysics, Epistemology

ACADEMIC APPOINTMENTS

University of Cincinnati
Head of the Philosophy Department, 2023 – present
Professor of Philosophy, 2020 – present
Founding Director of the Center for Public Engagement with Science, 2017 – present
Affiliated Faculty, Women's, Gender, and Sexuality Studies, 2012 – present
Associate Professor of Philosophy, 2013 – 2020
Assistant Professor of Philosophy, 2010 – 2013

Oklahoma State University
Assistant Professor of Philosophy, 2008 – 2010

EDUCATION

Stanford University: Philosophy, MA 2004, PhD 2007
Dissertation: *Evolution, Explanation, and Unity of Science*
Advisors: Elliott Sober and Michael Friedman
Committee Members: Helen Longino and Peter Godfrey-Smith
University Chair: Marcus Feldman (Biology)

Hendrix College: Philosophy, BA 2002
Honors in Philosophy, *Summa cum Laude*

SELECTED GRANTS, FELLOWSHIPS, AND AWARDS

PI, National Science Foundation, Innovations in Graduate Education DGE-2224857, "Engaging Science: Transforming Graduate Education through Public Engagement with Science," Co-PIs Melissa Jacquart, Carlie Trott, Brooke Crowley, Nathan Morehouse ($499,999), 2022-2027

Strategic Collaborative Faculty Team Project Award for Center for Public Engagement with Science sustainability initiative, University of Cincinnati ($40,000), 2023-2024

Research Fellowship, "Science and the Public," Charles Taft Research Center, University of Cincinnati, 2022-2023

Elected Fellow of the Graduate College, University of Cincinnati, 2022

Office of Research Research2030 Funding, Center for Public Engagement with Science ($265,000), 2021-2025

Co-PI, National Science Foundation, Conference Award SES-1946951, "Public Engagement and Philosophy of Science," PI Melissa Jacquart ($34,522), 2020

Center for Public Engagement with Science: College Structures award ($5,000), 2019

Rising Star Award, University of Cincinnati College of Arts and Sciences, 2017

Runner Up for the Dean's Award for Teaching Excellence, UC College of Arts and Sciences, 2017

Planning Committee, NEH Next Generation PhD Planning Grant, to enhance pathways from humanities PhDs to non-academic professions, University of Cincinnati, 2016-2017

Research Fellowship, "Idealization and the Aims of Science," Charles Taft Research Center, University of Cincinnati, 2013-2014

Marjorie Grene Prize, biannual award for the best graduate student manuscript from a meeting of the International Society for History, Philosophy and Social Studies of Biology, 2011-2013

Visiting Research Fellowship, Michelle R. Clayman Institute for Gender Research, Stanford University, 2010-2011

President's Medal, awarded to the senior "best exemplifying the highest ideals of the college," Hendrix College, 2002

R.G. Shoemaker Award, awarded to the outstanding graduating senior in philosophy, Hendrix College, 2002

BOOKS

Public Engagement with Science: Defining the Project, with Melissa Jacquart, Elements in Public Engagement with Science, Cambridge University Press, 2025. First author.

Reviewed in *Metascience* (Karen Kovaka, Elis Jones and Sabina Leonelli, and Roger Highfield), *Public Understanding of Science* (Felicity Mellor), *Journal of Science Communication* (Kiran Tomas van den Brande, Emmy Vrieling-Teunter, Arnoud Theodoor Evers, Frank de Jong)

Science and the Public, Elements in Philosophy of Science, Cambridge University Press, 2024.

Reviewed in *Public Understanding of Science* (Thomas Dickins), *Journal for General Philosophy of Science* (Ann-Christin Fischer), *Journal for Technology Assessment in Theory and Practice* (Dana Mahr), *Metascience* (Cristina Lagido), *Journal of Science Communication* (Laida Arbizu Aguirre)

Recipes for Science: An Introduction to Scientific Methods and Reasoning, with Matteo Colombo and Cory Wright, Routledge, 2018. Thoroughly revised 2nd edition, 2024. Italian translation, 2025. Japanese translation, in progress.

Reviewed in *Science & Education* (Peter Kosso), *Philosophy of Science* (Viorel Pâslaru)

Idealization and the Aims of Science, University of Chicago Press, 2017. Paperback released 2020.

Reviewed in *New Scientist* (Philip Ball), *Biology & Philosophy* (Adrian Currie), *Philosophy of Science* (Daniel Burnston), *The Year's Work in Critical and Cultural Theory: Science and Medicine* (Sherryl

Vint), *Notre Dame Philosophical Reviews* (Gregory J. Morgan), *Science & Education* (Kevin McCain), *Metascience* (N. Emrah Aydinonat), *History and Philosophy of the Life Sciences* (Frederico Boem), *Meta* (Nicholas Danne), *Medicine Anthropology Theory* (Kathryne Metcalf)

SPECIAL ISSUES AND SERIES

Editor-in-Chief, with Melissa Jacquart, *Elements in Public Engagement with Science*, Cambridge University Press, 2022-present.

Editor, Proceedings of the 2021 Biennial Meeting of the Philosophy of Science Association. Part II: Symposia. *Philosophy of Science*, Vol. 89, No. 5 (December 2022).

Editor, Proceedings of the 2021 Biennial Meeting of the Philosophy of Science Association. Part I: Contributed Papers. *Philosophy of Science*, Vol. 88, No. 5 (December 2021).

Editor, *Socially Engaged Philosophy of Science*, special issue of *Erkenntnis*, 2014, 79(5): 901-1017.

ARTICLES AND CHAPTERS

*student coauthor

"Varieties of Explanation in Biology," with Zachary Peck*, Kostas Kampourakis and Ross Nehm (Eds.), *Explanation in Biology Education: Theory and Practice*. Springer, forthcoming. Second author; substantially revised version of "Biological Explanation," 2010.

"We Can't Know If Scientific Theories Are Correct," with Dana Tulodziecki, in *Too Weird to Believe, Too Plausible to Deny*, Clifford Sosis (Ed.), Routledge, 2025. Equal authorship.

"Antireductionism Has Outgrown Levels," in Alastair Wilson and Katie Robertson (Eds.), *Levels of Explanation*, Oxford University Press, 2025.

"Theorizing Participatory Research," with Andrew Evans*, in Emily Anderson (Ed.), *Ethical Issues in Stakeholder-Engaged Health Research,* Springer, 2023. Second author.

"Truth and Reality: How to Be a Scientific Realist Without Believing Scientific Theories Are True," in Insa Lawler, Kareem Khalifa and Elay Shech (Eds.), *Scientific Understanding and Representation: Modeling in the Physical Sciences*, Routledge, 2022.

"Divergence of Values and Goals in Participatory Research," with Lucas Dunlap, Amanda Corris*, Melissa Jacquart, Zvi Biener, in a special issue of *Studies in History and Philosophy of Science*, "Values and Pluralism in the Environmental Sciences," Zachary Piso and Viorel Paslaru (Eds.), 2021, 88: 284-291. Equal authorship.

"Our World Isn't Organized into Levels," in Daniel S. Brooks, James DiFrisco, and William C. Wimsatt (Eds.), *Levels of Organization in the Biological Sciences*, Boston: MIT Press, 2021.

"Idealization and Many Aims," *Philosophy of Science,* Symposium Proceedings PSA2018, 2020, 87: 933–943.

"What Constitutes an Explanation in Biology?," in *Philosophy of Science for Biologists*, Kostas Kampourakis and Thomas Uller (Eds.), Cambridge University Press, 2020.

"Patterns in Cognitive Phenomena and Pluralism of Explanatory Styles," with Guilherme Sanches de Oliveira*, in a special issue of *Topics in Cognitive Science*, "Levels of Explanation in Cognitive

Science: From Molecules to Culture," Matteo Colombo and Markus Knauff (Eds.), 2020, 12 (4): 1306-1320. First author.

"Eight Other Questions about Explanation," in *Explanation Beyond Causation*, Alexander Reutlinger and Juha Saatsi (Eds.), Oxford University Press, 2018.

"Scientific Explanation: Putting Communication First," *Philosophy of Science*, Symposium Proceedings PSA2014, 2016, 83: 721–732.

"The Diverse Aims of Science," in a special issue of *Studies in History and Philosophy of Science*, 2015, 53: 71-80.

"Causal Patterns and Adequate Explanations," *Philosophical Studies*, 2015, 172(5): 1163-1182.

"Toward Philosophy of Science's Social Engagement," with Francis Cartieri*, in a special issue of *Erkenntnis* on socially engaged philosophy of science, 2014, 79(5): 901-916.

"Biological Explanation," in Kostas Kampourakis (Ed.), *The Philosophy of Biology: A Companion for Educators*, vol. 1 of History, Philosophy and Theory of the Life Sciences, chapter 4, pages 49-65, Springer, 2013.

"Defusing Ideological Defenses in Biology," *BioScience*, 2013, 63(2): 118–123.

"Feminist Implications of Model-Based Science," *Studies in History and Philosophy of Science*, 2012, 43(2): 383-389.

"Modeling Social and Evolutionary Games," *Studies in History and Philosophy of Biological and Biomedical Sciences*, 2012, 43(1): 202-208.

"The Limitations of Hierarchical Thinking," with Brian McGill, *Philosophy of Science*, 2012, 79(1): 120-140. Primary authorship.

"A Neurathian Conception of the Unity of Science," *Erkenntnis*, 2011, 34(3): 305–319.

"Explanation and Understanding: An Alternative to Strevens' *Depth*," *The European Journal for the Philosophy of Science*, 2011, 1(1): 29-38.

"Explanatory Independence and Epistemic Interdependence: A Case Study of the Optimality Approach," *The British Journal for the Philosophy of Science*, 2010, 61(1): 213–233.

"Levels of Explanation Reconceived," *Philosophy of Science*, 2010, 77(1): 59–72.

"Optimality Modeling in a Suboptimal World," in a special issue of *Biology and Philosophy*, edited by Patrick Forber, 2009, 24(2): 183–197.

"Optimality Modeling and Explanatory Generality," *Philosophy of Science*, 2007, 74(5): 680–691.

"Revisiting Galison's 'Aufbau/Bauhaus' in Light of Neurath's Philosophical Projects," with Audrey Yap, *Studies in History and Philosophy of Science*, 2006, 37(3): 469–488. Equal authorship.

RESPONSES AND BOOK REVIEWS

Authors' Response, in review symposium of Potochnik and Jacquart's *Public Engagement with Science: Defining the Project*, with Melissa Jacquart, *Metascience*, 2026, 35, article 59. First author.

Review of Elena Bruni and Lianne M. Lefsrud's (Eds.) *Organized Science Denial*, with Qianrong Gong*, invited for *Metascience*, 2026, 35, article 42. Second author.

Review of Adam Frank, Marcelo Gleiser, and Evan Thompson's *The Blind Spot - Why Science Cannot Ignore Human Experience*, *Public Understanding of Science*, 2025, 34(2):261-262.

Essay Review of Michela Massimi's *Perspectival Realism*, *The Philosophical Quarterly*, 2024, 74(1):355–363.

"Different Ways to be a Realist: A Response to Pincock," in Insa Lawler, Kareem Khalifa & Elay Shech (Eds.), *Scientific Understanding and Representation: Modeling in the Physical Sciences*, Routledge, 2022.

Review of Catherine Elgin's *True Enough*, *Philosophical Review*, 2019, 128: 363-366.

"Mechanisms Are Causes, Not Components: A Response to Connolly, et al." with Brian J. McGill, *Trends in Ecology and Evolution*, 2018, 33: 304-305. Second author.

"A philosophical journey with some startling detours," A review of Paul Dicken's *Getting Science Wrong: Why the Philosophy of Science Matters* in *Physics Today*, 2018, 71(11):52.

Review of Helen Longino, *Studying Human Behavior: How Scientists Investigate Aggression and Sexuality* (University of Chicago Press, 2013), *Notre Dame Philosophical Reviews*, 2013.

Essay Review of Joan Roughgarden's *The Genial Gene*, in "Sex and Sensibility: The Role of Social Selection," Erika Milam, Roberta Millstein, Angela Potochnik, and Joan Roughgarden, *Metascience*, 2011, 20(2), 253-277.

WORK IN PROGRESS

A Guide for Academic Researchers Conducting Science Outreach, with Melissa Jacquart, Amanda Corris*, Andrew Evans*, Tim Elmo Feiten*, and Collin Lucken*, Elements in Public Engagement with Science, Cambridge University Press. Under contract and in revision; draft available.

"Maker's Knowledge and Scientific Understanding," with Collin Lucken*. Second author. Under review; draft available.

"Alternatives to Hierarchy: Scale and Complexity," with Brian McGill, invited for Jay Odenbaugh and Stefan Linquist (Eds.), *Routledge Handbook of the Philosophy of Ecology*. Second author. Under review; draft available.

"The Human Imprint on Science," invited for Sander Verhaegh and Alan Love (Eds.), *Philosophy of Science: Past, Present, and Future*. Minnesota Studies in Philosophy of Science. Under review; draft available.

"Idealization in Science," invited for *Comprehensive Philosophy of Science*, Sven Ove Hansson (Ed.), Elsevier. Under review; draft available.

"Causes Don't Push." Under review; draft available.

"Abandoning Veritism." Conditionally accepted into *Philosophy of Science*; draft available.

"Idealization," *The Stanford Encyclopedia of Philosophy*, Edward N. Zalta and Uri Nodelman (eds.). Invited; in progress.

"Explanations in Biology," invited for *The New Cambridge Companion to the Philosophy of Biology*, Grant Ramsey and Alejandro Fábregas-Tejeda (Eds.), Cambridge UP. In progress.

"Causation for Complex Systems," with Zvi Biener and Martin Li*, invited for a special issue of *Synthese*, Michal Oleksowicz (Ed.) In progress.

"Philosophy of Biology and Public Engagement," with Noa Dahan*, invited for Kate Lynch, John Matthewson, Maureen O'Malley, and Emily Parke (Eds.), *Routledge Companion to the Philosophy of Biology*. In progress.

INVITED PRESENTATIONS

Talk in an invited symposium "Recent Work in Philosophy of Science," Eastern Division Meeting of the American Philosophical Association, January 2027 (upcoming)

"Causes Don't Push," Spellman Lecture, University of Arkansas, October 2026 (upcoming)

"Architectures of Complexity," Keynote address, Ohio Philosophical Association, Ohio Dominican University, April 2026

"Philosophy as Public Engagement: Marie Reidemeister and Otto Neurath," Invited talk, PSA Philosophy of Science Around the World, November 2025 (virtual)

"Responsive Science: What do biomedical scientists owe the public and why?," Keynote address, University of Cincinnati MD-PhD Program Retreat, October 2025

"Causes Don't Push," Center for Philosophy of Science Annual Lecture Series, University of Pittsburgh, October 2025

"Responsive Science," Invited talk, Workshop on the Ethics and Epistemology of Public Engagement with Science, Fordham University, April 2025

"Science and the Public," Invited talk, Philosophy of science by all means: Animals, machines, ideology, and the public. A workshop with Angela Potochnik, Tilburg University, The Netherlands, March 2025

"Causes Don't Push," Invited talk, Workshop on Causality and Complexity, University of Cologne, Germany, March 2025

Explanation and AI, Peyrard Lab, University of Grenoble, February 2025 (virtual)

"How False Assumptions Contribute to Scientific Understanding," Quarterly Lectures in Philosophy of Science, Radboud University Nijmegen, December 2024 (virtual)

Invited participant, Workshop on Information, Selection, and Evolution (WISE), Carnegie Institution, October 2024

"The Human Imprint on Science," Philosophy of Science: Past, Present, and Future, University of Minnesota Center for Philosophy of Science, October 2024

"Science and the Public," STS Program, University of British Columbia, September 2024

"Recipes for Science," Wayne State Medical School, September 2024 (virtual)

Discussion and interview on *Idealization and the Aims of Science*, Centre for Philosophy and the Sciences, University of Oslo, September 2024 (virtual)

"Architectures of Complexity," Keynote Address, Philosophy of Biology at the Mountains (POBAM), University of Utah, July 2024

"Where We Find Levels," Eastern Division Meeting of the American Philosophical Association, January 2024

"Letting Go of Levels," Logic and Philosophy of Science Interest Group, Philosophy Department, University of Toronto, March 2023

"Biology Without Levels," Integrated Biology Program, University of Akron, February 2023 (virtual)

"Truth and Reality: How to Be a Scientific Realist Without Believing Scientific Theories Are True," Joint Talk of Department of Philosophy and Department of History and Philosophy of Science, Indiana University, September 2022

"What Not to Expect from Theories," Keynote address, Workshop on 'What makes a good theory? Interdisciplinary perspectives', Lorentz Center, Leiden University, The Netherlands, June 2022 (virtual)

Course Leader and talk, "Challenging Levels and Localism in Philosophy and Ecology," Bordeaux Summer School - Philosophy in Biology and Medicine, June 2022

"Truth and Reality: How to Be a Scientific Realist Without Believing Scientific Theories Are True," Keynote address, Rotman Graduate Student Conference, Western University, May 2022

"Antireductionism Has Outgrown Levels," Keynote address, Graduate Workshop on Complexity, University of Kentucky, April 2022

"Participation in Science," Department of Logic and Philosophy of Science, University of California Irvine, March 2022

"Idealization and the Aims of Science," Neuroscience & Philosophy Salon, Feb. 2022 (virtual)

"It's All Relevant," Interdisciplinary Centre for Science and Technology Studies (IZWT), University of Wuppertal, Germany, Dec. 2021 (virtual)

"Non-Factive Understanding and Scientific Progress," PhilSci India Winter School, Dec. 2021 (virtual)

"It's All Relevant," Graduate Student Society for Philosophy of Science, Ohio State University, Oct. 2021

"Participation in Science," Department of Philosophy, University of Washington, Oct. 2021

"To Whom Does Science Belong?" Bioethics, Citizen Science, and Human Subject Protection Conference, Cincinnati Children's Hospital and Medical Center, Sept. 2021 (virtual)

"It's All Relevant," Workshop on Understanding and Explanatory Relevance, University of Hamburg, June 2021 (virtual)

"Truth and Reality: How to Be a Scientific Realist Without Believing Scientific Theories Are True," Philosophy of Physics Reading Group, Caltech, March 2021 (virtual)

"A Non-Factive Epistemic Standard for Understanding and its Implications for Scientific Progress," Department of Philosophy, University of Groningen, March 2021 (virtual

"A Non-Factive Epistemic Standard for Understanding and Its Implications for Scientific Progress," Understanding Progress in Science & Beyond Workshop, University of Iceland, Oct. 2020 (virtual)

"Why It Matters that Idealizations Are False," FRAMEPHYS Workshop on Idealization and Modeling, University of Birmingham, Oct. 2020 (virtual)

"Divergence of Values and Goals in Participatory Research," with Melissa Jacquart, Workshop on doing science in a pluralistic society, University of Dayton, April 2020 (virtual)

"How Misrepresentation Augments Understanding," Keynote address, 2nd Scientific Understanding and Representation (SURe) Workshop, Emory, Atlanta, GA, March 2020 (virtual)

"Causal Complexity and Styles of Explanation," Complexity, Social Cognition, and Social Explanation Workshop, University of Cincinnati, Feb. 2020

"Why It Matters that Idealizations Are False," Department of Philosophy, University of Kentucky, Feb. 2020

"Causal Patterns and Styles of Explanation," Plenary lecture, Fundamentals of Modeling Workshop, Center for Interdisciplinary Research, University of Bielefeld, Nov. 2019

"Our World Isn't Organized into Levels," Workshop on compositional explanation in biology and the neurosciences, Rutgers-SHU, Oct. 2019

"Our World Isn't Organized into Levels," Department of Philosophy, University of Pennsylvania, Sept. 2019

"Why It Matters that Idealizations Are False," Workshop on idealization across the sciences, Prague, June 2019

"Idealization and Many Aims," Center for Philosophy of Science, University of Minnesota, April 2019

"What We're Talking About When We Talk About Levels," Committee on History and Philosophy in Science Distinguished Speaker, University of Colorado, Boulder, April 2019

"Causal Patterns and How Our Theories Change," Philosophy & Biology Series, University of Bordeaux, April 2019

"Causal Patterns and How Our Theories Change," keynote address, *Evolution Evolving* conference, Cambridge University, April 2019

"Explaining with Idealizations," Seminar on Epistemic Norms of Explanation, University of Bordeaux, Jan. 2019 (virtual)

"What We're Talking About When We Talk About Levels," Department of History and Philosophy of Science, University of Pittsburgh, Sept. 2018

"Idealization and Understanding," Orange Beach Epistemology Workshop, May 2018

Author-meets-critics session on *Idealization and the Aims of Science*, with Catherine Elgin, Bradley Skow, and Michael Strevens, American Philosophical Association, Pacific Division Meeting, San Diego, March 2018

"Prizing Apart Levels Concepts," Altenberg Workshop on Hierarchy and Levels of Organization, Konrad Lorenz Institute for Evolution and Cognition Research, Vienna, March 2018

"Causal Patterns and Idealization in Biology," Department of Biology, University of Cincinnati, Nov. 2017

"Idealization and the Aims of Science," Bryn Mawr, Nov. 2017; Wake Forest University, Nov. 2017

"Explaining with Idealizations," University of Notre Dame, Oct. 2017; University of California, Davis, May 2017; University of Maryland, Feb. 2017

"Idealization and the Aims of Physics?", Department of Physics, University of Cincinnati, Sept. 2017

"How Idealizations Represent and Explain," University of Kansas, Dec. 2016

Author-meets-critics session on James Tabery's *Beyond Versus: The Struggle to Understand the Interaction of Nature and Nurture*, American Philosophical Association, Pacific Division Meeting, Vancouver, April 2015

"How Scientific Explanations Generate Understanding," Case Western Reserve, Feb. 2015

"Explaining with Idealizations," Modeling and Scientific Explanation Workshop, Jerusalem, June 2014

"Causal Patterns and Adequate Explanations," Indiana University, April 2014; Undergraduate Philosophy Club, Saint Louis University, Feb. 2014

"Science Isn't After the Truth," Missouri Philosophy of Science Workshop, University of Missouri, Oct., 2013

"Increasing Realism Without Getting Real," invited paper with commentary by Alyssa Bokulich and Quayshawn Spencer, American Philosophical Association, Pacific Division Meeting, San Francisco, March 2013

"Modeling Social and Evolutionary Games," Department of Biology, University of Cincinnati, April 2012

"Idealizing the Realizers," American Philosophical Association, Pacific Division Meeting, Group Program, April 2011

"Feminist Implications of Model-Based Science," Philosophy of Biology Lab Group, University of California, Davis, Feb. 2011

"The Limitations of Hierarchical Thinking," Department of Philosophy, Stanford University, Nov. 2010

"Modeling Social and Evolutionary Games," Philosophical Pizza Munch, California Academy of the Sciences, Oct. 2010

"Cooperation, Competition, and the Evolution of Sex," Undergraduate Philosophy Club, Oklahoma State University, Feb. 2010

"Explanation and Understanding," University of Cincinnati, Jan. 2010; University of Kentucky, Feb. 2010

"Science in a Complex World: Lessons from Biology," Steel Center Lecture, Hendrix College, March 2009

"Cooperation, Competition and the Evolution of Sex," Department of Philosophy, Hendrix College, March 2009

"Evolution and Contextual Explanation," University of Washington, Jan. 2009

"Philosophical Lessons from the Historical Sciences," School of Geology, Oklahoma State University, Sept. 2008; Undergraduate Philosophy Club, Oklahoma State University, Sept. 2008

"Situating the Optimality Approach in Population Biology," Department of Zoology, Oklahoma State University, Sept. 2008

"The Unity of Science in a Disordered, Dappled World," Departments of Philosophy at Syracuse University; University of California, Davis; University of Western Ontario; Florida State University; Oklahoma State University; and California State University, Long Beach; Jan. and Feb. 2008

"Evolution and the Unity of Science," Undergraduate Philosophy Association, Stanford University, Nov. 2005

"Another Kind of Unity: The Case of Evolutionary Modeling," Philosophical Pizza Munch, California Academy of the Sciences, October 2005

"Otto Neurath's Philosophy and Politics," with Audrey Yap, Undergraduate Philosophy Association, Stanford University, Oct. 2004

REFEREED PRESENTATIONS

"Abandoning Veritism," Contributed Paper, Philosophy of Science Association Biennial Meeting, San Diego, November 2026 (upcoming)

"Causes Don't Push," Asian Philosophy of Science Association Meeting, Nanyang Technological University, Singapore, July 2026

"How a humble role for values shapes all scientific knowledge," in a Symposium on Idealizations and Values, International Society for the History, Philosophy, and Social Studies of Biology, Portugal, July 2025

"Equilibrium Explanations are Causal," in a Symposium on Elliott Sober's Philosophy of Biology, International Society for the History, Philosophy, and Social Studies of Biology, University of Toronto, July 2023

"What's to Gain by Letting Go of Levels," in Symposium "Science Without Levels," Philosophy of Science Association Biennial Meeting, Pittsburgh, Nov. 2022

"Our World Isn't Organized into Levels," Society for Philosophy of Science in Practice, Michigan State University, July 2020 (conference canceled due to COVID-19)

"Idealization and Many Aims," in Symposium "Understanding and the Aims of Science," Philosophy of Science Association Biennial Meeting, Seattle, Nov. 2018

"Causal Patterns and Actual Causes," in a session on "Modeling Real Patterns in Biology," International Society for the History, Philosophy, and Social Studies of Biology, University of Montreal, July 2015

"Putting Communication First," in a Symposium on Scientific Explanation: Communication, Representation, Objectivity, Philosophy of Science Association Biennial Meeting, Chicago, Nov. 2014

"Idealization and the Limits of Science," Models and Simulations in the Sciences: Perspectives from Philosophy, History, and Policy, University of Notre Dame, May 2014

"Science Isn't After the Truth," American Philosophical Association, Pacific Division Meeting, San Diego, April 2014

"Non-Causal Features of Causal Explanations," A Conference in Honor of Elliott Sober, University of Wisconsin, Madison, May 2013

"Defusing Ideological Defenses in Biology," Philosophy of Science Association Biennial Meeting, San Diego, Nov. 2012

"A Dispute over the Basics of Nature," part of a critical discussion of Roughgarden's *The Genial Gene*, International Society for the History, Philosophy, and Social Studies of Biology, University of Sydney, July 2009

"Optimality Explanation as Anti-Reductionism," International Society for the History, Philosophy, and Social Studies of Biology, University of Exeter, July 2007

"Generality, Complexity, and Approaches to Explanation," American Philosophical Association, Pacific Division Meeting, San Francisco, April 2007

"Optimality Modeling and Explanatory Generality," Philosophy of Science Association Biennial Meeting, University of British Columbia, Nov. 2006

"Optimality Modeling and Explanatory Generality," Southwest Colloquium in History and Philosophy of the Life Sciences, University of California, Davis, April 2006

"Another Kind of Unity: The Case of Evolutionary Modeling," International Society for the History, Philosophy, and Social Studies of Biology, University of Guelph, July 2005

"Another Kind of Unity: The Case of Evolutionary Modeling," Philosophy of Biology Workshop, Stirling University, May 2005

"A Shift in Wittgenstein's Position on Syntax," The International Society for the History of Philosophy of Science, University of San Francisco, June 2004

SELECTED PUBLIC-FACING ACTIVITIES

Philosophy in Media Fellow (Trade Books Workshop), Marc Sanders Foundation, 2026

Facilitator, Public Engagement with Science workshop at the Society for Philosophy and Neuroscience (SPAN), May 2026

Developed 5th-6th grade field trips to University of Cincinnati for Title I public schools, 2022-present. Media coverage: https://www.fox19.com/2025/02/18/kids-learn-about-science-engineering-majors-uc/

"Science and the Public," invited post for the APA blog *Public Philosophy*, 2025

"What is Public Engagement with Science?," invited post for the blog *Epistemic Injustice in Healthcare*, 2025

Organizer, with Melissa Jacquart: Public Engagement with Science workshops at the biennial meeting of the Philosophy of Science Association, November 2022, and the Southern Society for Philosophy and Psychology meeting, March 2024

Speaker, Science on Tap series, Urban Artifact, September 2022

Co-organizer, virtual workshop, "Public Engagement with Science and Philosophy of Science," with over 300 registrants, 2021 (postponed from 2020 and moved online due to Covid-19)

Co-organizer and interviewer for author conversations with Maya Goldenberg (on vaccine hesitancy) and Sarah Richardson (on the science of maternal-fetal effects) at the Mercantile Library, Cincinnati, 2020-2021

"Constructing an ideal reality: Truth and understanding in science," *IAI News*, September 24, 2020

"Awareness of Our Biases Is Essential to Good Science," *Scientific American*, August 9, 2020

"Toward a More Expansive Conception of Philosophy," guest post on *Daily Nous*, a blog on the philosophy profession, August 2020

Co-organizer, "Climate Change/Cincinnati" event series at the Mercantile Library, Cincinnati, August-October 2019; fully subscribed with over 300 participants

Participant, interdisciplinary workshop on teaching scientific strategies for critical thinking, Lawrence Berkeley National Labs, July 2019

"How philosophy of science relates to scientific practices," invited post for the BJPS blog *Auxiliary Hypotheses*, 2018

Participant, Beyond the Ivory Tower writing workshop, facilitated by James Ryerson, Editor, New York Times (competitive selection process), 2018

"Idealization and the Aims of Science," book event at the Mercantile Library, Cincinnati, April 2018

"Why Philosophy is a Good Introduction to Science," invited post for the APA blog *The Teaching Workshop*, 2017

Participant in The Op Ed Project workshop (competitive selection process), 2015

TEACHING AND MENTORSHIP

Graduate Courses

Hum/NSci/SoSc 7000: Sharing Science Experience Workshop	2023 - 2026
Phil 8060: Organization	2023
Hum/NSci 7030: Public Engagement with Science (with Melissa Jacquart)	2020
Phil 8060: Complexity	2018
Phil 7021: History of Logical Empiricism	2012, 2017, 2022, 2025
Phil 6041: Graduate Logic	2015, 2018
Phil 8060: Idealization in Science	2014
Phil 8060: Socially Engaged Philosophy of Science	2012

Phil 740: Philosophy and Evolutionary Biology 2011
Phil 239: Teaching Methods (Stanford University) 2007, 2008

Undergraduate Courses
Hum/NSci/SoSc 4000: Sharing Science Experience Workshop 2026
Phil 1089/WGSS 1089: Sex and Death (online) 2019 – 2021
Phil 1032: How Science Works 2012, 2015, 2019, 2026
Phil 2010: Symbolic Logic 2014 – 2018
Hist/Phil 3096: Vienna and the Birth of Modern Culture (with Katherine Sorrels) 2017
Phil 123: Introduction to Logic 2011, 2012
Phil 336: Gender and Science 2011
Phil 212: Twentieth Century Philosophy 2011
Phil 1313: Logic and Critical Thinking (Oklahoma State University) 2008 – 2010
Phil 4990: History of Analytic Philosophy (Oklahoma State University) 2010
Phil 4733: Philosophy of Biology (Oklahoma State University) 2009
Phil 4983: Metaphysics and Epistemology (Oklahoma State University) 2009
Phil 4713: Philosophy of Science (Oklahoma State University) 2008
Phil 195A: Unity of Science (Stanford University) 2008
Phil 50: Introductory Logic (Stanford University) 2008

PhD Dissertation Chair
Martin Li
Timothy Luft
Clif Clemotte
Ramy Amin: *Explanatory Concepts, Levels of Abstraction, and Degrees of Complexity: A Basic Explanatory Schema for Neuroscience*
Zach Srivastava: *Analogies in Philosophy and Science*
Collin Lucken: *Engineering Progress in Science* PhD 2025
Mel Andrews: *The Math is Not the Territory: On the Uses & Abuses of Machine Learning & Other Mathematical Modelling Strategies* PhD 2025
Jonathan Kanzelmeyer: *Complex Systems and Concepts of Emergence*
Amanda Corris (Co-Chair with Tony Chemero): *Organism-Environment Codetermination: The Biological Roots of Enactivism* PhD 2020
Guilherme Sanches de Oliveira: *Scientific Modeling Without Representationalism* PhD 2019

PhD Committees
I-Jan Wang: *Explicating and Engineering Probes: A Practice-Oriented Philosophy of Cognitive Science*
Qianrong Gong: *Reconceptualizing Pro-Natalism: Beyond Birth Rates*
Ilir Isufi: *Interdisciplinary Tensions in the Study of Cognition: Integrating Philosophy of Mind, Anthropology, and Psychology Through a Critique of Linguistic Relativity*
Vanessa Lovato: *The History and Science of Premenstrual Syndrome*
Zach Peck: *Towards a Cyborgian Social Ontology of AI* PhD 2026
Tim Elmo Feiten: *Jakob von Uexküll's Concept of Umwelt as an Account of the Mental* PhD 2024
Bradley Griggs: *Powerful Emergence: An Ontologically Serious Account of Subset Realization* PhD 2026
Andrew Evans: *Treatable Conditions: Boundaries for a Mental Health Ontology* PhD 2023
Alex Huffman: *The Metaphysics and Semantics of Natural Kinds: A Case for Kind Nominalism*
Frank Faries: *Big Data and the Integrated Sciences of the Mind* PhD 2022

Sahar Heydari Fard: *The Morality of Social Movements* PhD 2021
Matthew Baxendale (Central European University): *Levels of Organisation in Scientific Practice* PhD 2018
Maurice Lamb: *Characteristics of Non-Reductive Explanations in Complex Dynamical Systems Research* PhD 2015
Vanessa Bentley: *Building a Feminist Philosophy of Cognitive Neuroscience* PhD 2015
Nina Atanasova: *Animal Models and the Unity of Neuroscience* PhD 2014

Postdoctoral Funding and Mentorship (for UC Center for Public Engagement with Science)
Mia Levenson (Theatre and Performance Studies PhD) 2026-present
Kate Nicole Hoffman (Philosophy PhD) 2024-2026
Megan Corcoran (Geosciences PhD) 2023-2024
Melissa Jacquart (Philosophy PhD) 2018-2020

Other Mentorship
Independent study on philosophy of astrobiology, PHIL 8098 2022
Philosophy cognate advisor, Anne Delfin, Music Theory PhD student 2021
Independent study on scientific methods, PHIL 8098 2021
PhD Qualifying Exam committees: Philosophy of Science (3) 2017, 2021
Teaching mentor (for graduate students teaching independently) 2018 – present
University Honors Program undergraduate summer internship mentor 2018, 2019
Philosophical writing graduate mentoring 2015, 2017
Vanessa Bentley, MA Thesis Co-advisor, Women's, Gender, and Sexuality Studies: *Establishing the case for discipline-specific feminist philosophy of science* MA 2013
Independent study on feminist philosophy of science, WGSS 811 2012

Pedagogical Training
Participant in STEM Teaching and Learning Workshop: Hidden inequities in active learning 2017
Presentation on combatting implicit bias and stereotype threat in the classroom
with Vanessa Carbonell, at a university-wide professional training workshop 2015
with Vanessa Carbonell, at UC's Annual Diversity Conference 2014
Participant in CET&L Showcasing Your Teaching workshop, University of Cincinnati 2012
Participant in CET&L Teaching Large Classes workshop, University of Cincinnati 2011

PROFESSIONAL AND SERVICE ACTIVITIES

Service to the Profession
Associate Editor, *Philosophy of Science* 2023 – present
Governing Board, Philosophy of Science Association 2026 - 2029
Executive Office Liaison, Philosophy of Science Association 2020 – present
Editorial Board, *Studies in History and Philosophy of Science* 2023 – present
Editorial Board, *Biology and Philosophy* 2020 – present
Editorial Board, *Stanford Encyclopedia of Philosophy* 2018 – present
Consulting Editor, *Theoria* 2018 – present
Steering Committee, Scientific Understanding and Representation workshop series 2019 – present
Steering Committee, PhilInBioMed Network 2019 – present
Program Committee, 5th Philosophy in Biology and Medicine Conference 2024
Program Chair, Philosophy of Science Association Biennial Meeting 2020/2021 2019 – 2023

PSA Underrepresented Philosophy of Science Scholars Program mentor 2020 – 2022
Invited comments on Lorenzo Spagnesi's "Regulative Idealization: A Kantian Approach to Idealized Models," North American Kant Society Virtual Meeting 2022
Program Committee, Eastern European Philosophy of Science Network Conference 2022
Associate Editor, *Biology and Philosophy* 2017 – 2020
Member of the PSA2018 Program Committee 2017 – 2019
Category Editor for PhilPapers (Models and Idealization) 2017 – 2019
Leaf Editor for PhilPapers (Unity of Science) 2010 – 2019
Member of the MS8 (Models and Simulations Conference) Program Committee 2017 – 2018
Invited speaker at the Early Career Development Workshop, ISHPSSB conference in Montreal 2015
Invited Comments on Woodward's talk at a conference in honor of Hausman, UW Madison 2015
Organizer of "Explanation: Communication, Representation, Objectivity" Symposium, Philosophy of Science Association Biennial Meeting 2014
Comments on Joel Velasco's "Species, Genes, and the Tree of Life," Pacific APA 2010
Comments on Robert Northcott's "Genetic Drift," Eastern APA 2009
Organizer of "The Genial Gene: Author Meets Critics," ISHPSSB Conference 2009
Reviewer for *Animal Behavior*, *Australasian Journal of Philosophy* (2), *Biology and Philosophy* (3), *BioScience* (2), *The British Journal for the Philosophy of Science* (9), *Cognitive Science*, *Ergo*, *Erkenntnis* (5)*, European Journal of Philosophy of Science* (4)*, Hypatia*, *The International Journal of Philosophy of Science*, *The Journal of Aesthetics and Art Criticism, Perspectives on Science, Mind*, *Philosophers' Imprint*, *Philosophical Studies* (3)*, Philosophy and Phenomenological Research* (2), *Philosophy and Theory in Biology, Philosophy of Science* (14), PLOS ONE, *Science and Education*, *The Southern Journal of Philosophy, Studies in the History and Philosophy of Biological and Biomedical Sciences* (3)*, Studies in the History and Philosophy of Science* (2), *Synthese* (14), *Theoria* (3), Cambridge University Press (3), Elsevier Press, Oxford University Press (4), Minnesota Studies in Philosophy of Science book series, Routledge (4), Springer, University of Chicago Press, the Central States Philosophical Association
Grant or postdoc reviewer for the European Research Commission, Zentrum für interdisziplinäre Forschung (ZiF), French National Research Council, Estonian Research Council, Israel Science Foundation, John Templeton Foundation (2), National Science Foundation (2), NSF Panel Reviewer, Konrad Lorenz Institute, and Clayman Institute at Stanford University

Professional Development

Principles & Techniques of Fundraising Workshop, Lilly Family School of Philanthropy 2025
Training in facilitating research mentorship, Center for the Improvement of Mentored Experiences in Research (CIMER) 2024
Participant in Academy of Leadership and Practice, sponsored by the Office of the Provost, University of Cincinnati (competitive selection process) 2022 – 2023
Participant in UC Women Lead Executive Leadership program, sponsored by the Office of the Provost, University of Cincinnati (competitive selection process) 2016 – 2017
Participant in the FORTE workshops: Pathways to Leadership, University of Cincinnati 2015
Participant in the Function and Evolution Working Group at the National Institute for Mathematical and Biological Synthesis, University of Tennessee 2009 – 2010
Participant in the Ecology and Evolution Reading Group, Oklahoma State University 2009 – 2010
Participant in the Roughgarden Lab meetings, Stanford University 2007 – 2008
Member of Science and Technology Studies Writing Group, Stanford University 2006 – 2008
Coordinator of interdisciplinary reading group on feminist philosophy of science, Stanford 2006

Presenter, Participant in Logical Methods in the Humanities discussion series, Stanford 2002 – 2006

University of Cincinnati: Philosophy Department

Head of the Philosophy Department 2023 – present
Chair, Awards Committee 2021 – 2022
Chair, Ad Hoc Workload Committee 2020 – 2021
Member, Undergraduate Studies Committee 2020 – 2021
Director of Graduate Studies for the Philosophy Department 2014 – 2019
Member, Diversity Task Force 2011 – 2016
Member, Department Head Search Committee 2015
Member, Merit Review Committee 2014 – 2015
Member, Graduate Studies Committee 2011 – 2013
Organizer of 49th Annual UC Philosophy Colloquium (three-day conference) 2012
Member, Taft Undergraduate Fellowship application review committee 2011

University of Cincinnati: College- and University-Level

Founding Director of Center for Public Engagement with Science 2017 – present
Chair, A&S Heads Council 2025 – 2026
Vice Chair, A&S Heads Council 2024 – 2025
A&S ad hoc Academic Oversight Committee 2025
Chair, Africana Studies Head Search Committee 2024
A&S and CEAS Cooperative Grants Office Planning Committee 2023 – 2024
Advisory Board, UC Science and Engineering Expo (UC SEE) 2022 – 2023
Advisory Board, Institute for Research in Sensing (IRiS) 2021 – 2022
Mentor, Branches Women Faculty Mentorship Program, UC 2021 – 2022
Member, Ad Hoc Committee on Administrative Compensation, Arts & Sciences 2021 – 2022
Search committee, business administrator staff position for College of Arts & Sciences 2022
Search committee, post-award grant staff position for College of Arts & Sciences 2021
NEH Summer Stipends Committee 2021
Planning Committee Member, Taft Research Center 2019 – 2020
Member, College Structures Committee, College of Arts & Sciences 2019
Mentor, A&S women-to-women mentoring project 2016 – 2018
Representative (A&S Humanities) on the University Graduate Council 2015 – 2019
Member, Graduate Council of the College of Arts and Sciences 2014 – 2019
Executive Committee Member, Graduate Council of the College of Arts and Sciences 2017 – 2018
Co-Chair, Graduate School Decanal Review Committee 2017 – 2018
Developed Head's Guide to Managing Adjunct Faculty, presented at Provost Senior 2016– 2017
Staff Meeting, New Heads Orientation, influenced HR adjunct on-boarding (with two other faculty)
Member, Taft Faculty Fellowship Committee 2016 – 2017
Member, Classics Department Head Search Committee 2014 – 2015
Member, Diversity Task Force for the College of Arts and Sciences 2013 – 2014
Member, University Research Council's Review Committee for Undergrad. Fellowships 2012 – 2013

Service to the Community

Led University of Cincinnati partnership with Clifton Area Neighborhood School, with collaborations spanning five UC colleges 2017 – 2023
Local School Decision-Making Committee of Clifton Area Neighborhood School 2018 – 2022
Chair 2019-2020, Co-Chair 2020-2022