# JOHN BEATTY

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## **Birthplace**

Midland, Texas

### Education

B.S. Biology and Chemistry, Tulane University, 1973.M.A. History and Philosophy of Science, Indiana University, 1977.Ph.D. History and Philosophy of Science, Indiana University, 1979.

### **Current Position**

Professor, Department of Philosophy, University of British Columbia, 2003-present.

### **Previous Positions**

Assistant Professor, Department of the History of Science, Harvard University, 1978-1982.

Associate Professor, Department of Philosophy, Arizona State University, 1982-1984.

Visiting Associate Professor, Department of Philosophy, and Program in the History of Science, Stanford University, 1985.

- Associate Professor and Professor, Department of Ecology, Evolution and Behavior, and Program in the History of Science and Technology, University of Minnesota, 1985-2003.
- Visiting Professor, Department of History and Philosophy of Science, University of Pittsburgh, 2017.

#### **Honors and Awards**

Distinguished Teaching Award, College of Biological Sciences, University of Minnesota, 1997.

Fellow, American Association for the Advancement of Science, 1997.

Morse-Alumni Distinguished Teaching Award, University of Minnesota, 1998.

### **Selected Research Grants and Fellowships**

- Fellow in Residence, Center for Interdisciplinary Research, University of Bielefeld, Germany, 1982-1983.
- National Science Foundation, History and Philosophy of Science Panel, Scholars Award and Summer Scholars Award, 1987-1988. PI.
- National Science Foundation, Instrumentation and Laboratory Improvement Grant, 1994-1996. PIs: John Beatty, Bruce Fall and Richard Peifer.
- National Science Foundation, Ethics and Value Studies Panel, Scholars Award and Summer Scholars Award, 1995-1996, extended through 1998. PI.
- National Science Foundation, Science and Technology Studies Panel, Small Grant for Research and Training, 1996-1998. PIs: John Beatty, James Collins and Gregg Mitman.
- National Science Foundation, Science and Technology Studies Panel, Doctoral Dissertation Improvement Award, 2000-2001. PI (for Karin Matchett's Ph.D. thesis).
- National Science Foundation, Science and Technology Studies Panel, Doctoral Dissertation Improvement Award, 2000-2001. PI (for Kevin Francis's Ph.D. thesis).
- Alfred P. Sloan Foundation and Dibner Institute for the History of Science and Technology, Grant for Web-Based Documentation and Analysis of Recent Science, 2000-2003; PI Jed Buchwald; Co-Investigators Babak Ashrafi, Diana Barkan, John Beatty, Bernadette Bensaude-Vincent, Michael Dietrich, Timothy Lenoir, and David Mindell.
- National Science Foundation, Science and Technology Studies Panel, Doctoral Dissertation Improvement Award, 2003. PI (for Jay Aronson's Ph.D. thesis).
- Social Sciences and Humanities Research Council of Canada, Standard Research Grant, 2006-2010.
- Social Sciences and Humanities Research Council of Canada, Insight Research Grant, 2020-2025.

### **Publications**

### Books

Gigerenzer, Gerd, Zeno Swijtink, Theodore Porter, Lorraine Daston, John Beatty and Lorenz Krüger. 1989. *The Empire of Chance: How Probability Changed Science and Everyday Life*. Cambridge: Cambridge University Press. In print continuously to the present.

### **Edited Books**

Singh, Rama S., Costas B. Krimbas, Diane B. Paul and John Beatty (eds.). 2000. Thinking about Evolution: Historical, Philosophical and Political Perspectives, a Festschrift for Richard C. Lewontin. Cambridge: Cambridge University Press.

#### **Books in Preparation**

*Evolution as Parable: Charles Kingsley and* Water Babies. An account of the interrelated evolutionary, theological and social dimensions of the classic Victorian fairy tale. In collaboration with Piers Hale. Under contract with University of Chicago Press.

#### **Articles and Essay Reviews**

- Mills, Susan B. and John Beatty. 1979. "The Propensity Interpretation of Fitness." *Philosophy of Science* 46: 263-286. **Reprinted** in Elliott Sober (ed.). 2006. *Conceptual Issues in Evolutionary Biology*. Cambridge: MIT Press. **Also reprinted** in Marc Lange (ed.). 2006. *Philosophy of Science: An Anthology*. London: Blackwell.
- Beatty, John. 1979. "Elliott Sober's Simplicity" (an essay review). Systematic Zoology 28: 643-651.
- Beatty, John. 1980. "Optimal-Design Models and the Strategy of Model Building in Evolutionary Biology." *Philosophy of Science* 47: 532-561.
- Beatty, John. 1981. "Garland Allen's *Life Science in the Twentieth Century*" (an essay review). *Annals of Science* 38: 207-216.
- Beatty, John. 1982. "What's Wrong with the Received View of Evolutionary Biology?" In P.D. Asquith and R.N. Giere (eds.), PSA 1980, Proceedings of the 1980 Biennial Meetings of the Philosophy of Science Association, Volume 2. East Lansing, Michigan: Philosophy of Science Association.

Beatty, John. 1982. "What's in a Word? Coming to Terms in the Darwinian Revolution." Journal of the History of Biology 15: 215-239. Also in M. Ruse (ed.). 1983. Nature Animated, Proceedings of the Third International Congress of History and Philosophy of Science. Dordrecht: Reidel.

Beatty, John. 1982. "Classes and Cladists." Systematic Zoology 31: 25-34.

- Beatty, John. 1982. "The Insights and Oversights of Molecular Genetics: The Place of the Evolutionary Perspective." In P.D. Asquith and T. Nickles (eds.), *PSA 1982*, Proceedings of the 1982 Biennial Meetings of the Philosophy of Science Association, Volume 1. East Lansing, Michigan: Philosophy of Science Association. Reprinted in M. Ruse (ed.). 1989. *Philosophy of Biology*. New York: Macmillan.
- Beatty, John. 1983. "Rationality: Putting the Issue to the Scientific Community" (a reply to D. Dennett's "Intentional Systems in Cognitive Ethology: The Panglossian Paradigm Defended"). *The Behavioral and Brain Sciences* 6: 355-356.
- Beatty, John. 1984. "Chance and Natural Selection." *Philosophy of Science* 51: 183-211. **Reprinted** in Alexander Rosenberg (ed.). 2009. *Philosophy of Biology: An Anthology*. New York: Wiley.
- Brandon, Robert and John Beatty. 1984. "The Propensity Interpretation of Fitness: No Interpretation is No Substitute." *Philosophy of Science* 51: 342-357.
- Beatty, John. 1986. "Speaking of Species: Darwin's Strategy." In D. Kohn (ed.), Darwin's Heritage: A Centennial Retrospect. Princeton: Princeton University Press. Reprinted in M. Ereshevsky (ed.). 1992. Units of Evolution: Essays on the Nature of Species. Cambridge: MIT Press.
- Beatty, John. 1986. "Pluralism and Panselectionism." In P.D. Asquith and P. Kitcher (eds.), PSA 1984, Proceedings of the Biennial Meetings of the Philosophy of Science Association, Volume 2. East Lansing, Michigan: Philosophy of Science Association.
- Beatty, John. 1986. "The Synthesis and the Synthetic Theory." In W. Bechtel (ed.), *Integrating Scientific Disciplines*. Dordrecht: Nijhoff.
- Collins, James B., John Beatty and Jane Maienschein. 1986. "Introduction: Between Ecology and Evolutionary Biology" (introduction to a special journal issue, edited by the three of us, on the topic of historical connections between evolutionary biology and ecology). *Journal of the History of Biology* 19: 169-180.
- Beatty, John. 1987. "Natural Selection and the Null Hypothesis." In J. Dupré (ed.), *The Latest on the Best: Essays on Evolution and Optimality*. Cambridge: MIT Press.

- Beatty, John. 1987. "Dobzhansky and Drift: Facts, Values, and Chance in Evolutionary Biology." In Lorenz Krüger et al. (eds.), *The Probabilistic Revolution*, Volume 2. Cambridge: MIT Press.
- Beatty, John. 1987. "Weighing the Risks: Stalemate in the Classical/Balance Controversy." Journal of the History of Biology 20: 289-319.
- Beatty, John. 1987. "On Behalf of the Semantic View" (a reply to P. Sloep and W. van der Steen's "Evolutionary Biology and the Semantic View of Theories"). *Biology and Philosophy* 2: 17-23.
- Beatty, John. 1988. "Ecology and Evolutionary Biology in the War and Postwar Years: Comments and Questions." *Journal of the History of Biology* 21: 245-263.
- Beatty, John. 1988. "The Wright Stuff" (an essay review of W. Provine's Sewall Wright and Evolutionary Biology). Biology and Philosophy 3: 275-283.
- Beatty, John and Susan Finsen. 1989. "Rethinking the Propensity Interpretation of Fitness: A Peek Inside Pandora's Box." In M. Ruse (ed.), *What the Philosophy of Biology Is Today: Essays for David Hull*. Dordrecht: Kluwer.
- Beatty, John. 1990. "Evolutionary Anti-Reductionism: Historical Considerations." *Biology and Philosophy* 5: 199-210.
- Beatty, John. 1990. "Teleology and the Relationship of Biology to the Physical Sciences in the Nineteenth and Twentieth Centuries." In F. Durham and R. Purrington (eds.), Newton's Legacy: The Origins and Influence of Newtonian Science. New York: Columbia University Press. Reprinted in Lisa Gannett (ed.). 2014. Echoes from the Cave: Philosophical Conversations since Plato. Oxford: Oxford University Press.
- Beatty, John. 1991. "Genetics in the Atomic Age: The Atomic Bomb Casualty Commission, 1947-1957." In K. Benson, R. Rainger, and J. Maienschein (eds.), *The American Expansion of Biology*. New Brunswick, NJ: Rutgers University Press.
- Beatty, John. 1992. "Fitness." In E. Keller and L. Lloyd (eds.), *Keywords in Evolutionary Biology*. Cambridge: Harvard University Press.
- Beatty, John. 1992. "Random Drift." In E. Keller and L. Lloyd (eds.), *Keywords in Evolutionary Biology*. Cambridge: Harvard University Press.
- Beatty, John. 1992. "Julian Huxley and the Evolutionary Synthesis." Julian Huxley: Biologist and Statesman of Science. Houston: Rice University Press.
- Beatty, John. 1993. "Scientific Collaboration, Internationalism, and Diplomacy: The Case of the Atomic Bomb Casualty Commission." *Journal of the History of Biology* 26: 205-231.

- Beatty, John and Elizabeth Sandager. 1993. "Documenting the Human Genome Project: Challenges and Opportunities." *The Mendel Newsletter* new series 1: 1-9.
- Beatty, John. 1994. "Theoretical Pluralism in Biology, Including Systematics." In O. Rieppel (ed.), *Interpreting the Hierarchy of Nature*, 1992 Spring Systematics Symposium of the Field Museum of Natural History. New York: Academic Press.
- Beatty, John. 1994. "Dobzhansky and the Biology of Democracy: The Moral and Political Significance of Genetic Variation." In M. Adams (ed.), *The Evolution of Theodosius Dobzhansky*. Princeton: Princeton University Press.
- Beatty, John. 1994. "Ernst Mayr and the Proximate/Ultimate Distinction." *Biology and Philosophy* 9: 333-356.
- Beatty, John. 1995. "The Evolutionary Contingency Thesis." In Gereon Wolters and James G. Lennox (eds.), *Concepts, Theories, and Rationality in the Biological Sciences*, The Second Pittsburgh-Konstanz Colloquium in the Philosophy of Science. Pittsburgh: University of Pittsburgh Press. **Reprinted** in Elliott Sober (ed.). 2006. *Conceptual Issues in Evolutionary Biology*. Cambridge: MIT Press. **Also reprinted** in Marc Lange (ed.). 2006. *Philosophy of Science: An Anthology*. London: Blackwell.
- Beatty, John. 1997. "Why Do Biologists Argue Like They Do?" *Philosophy of Science* S64: 231-242.
- Beatty, John. 2000. "Origins of the U.S. Human Genome Project: Changing Relationships between Genetics and National Security." In Philip Sloan (ed.), Controlling Our Destinies: The Human Genome Project from Historical, Philosophical, Social and Ethical Perspectives. Notre Dame: University of Notre Dame Press.
- Paul, Diane B. and John Beatty. 2000. "James Neel, *Darkness in El Dorado*, and Eugenics: The Missing Context." Society for Latin American Anthropology Newsletter, number 17 (also available at http://www.aaanet.org/slaa/newsletter.htm).
- Beatty, John and Diane B. Paul. 2001. "Introduction." In Rama Singh, Costas Krimbas, Diane Paul and John Beatty (eds.), *Thinking about Evolution: Historical, Philosophical and Political Perspectives*. A Festschrift for Richard C. Lewontin. Cambridge: Cambridge University Press.
- Beatty, John. 2001. "Historical Determinism, Evolution and Totalitarianism in the Works of Hannah Arendt and Karl Popper." In Rama Singh, Costas Krimbas, Diane Paul and John Beatty (eds.), *Thinking about Evolution: Historical, Philosophical and Political Perspectives*. A Festschrift for Richard C. Lewontin. Cambridge: Cambridge University Press.

- Lewontin, Richard C., Diane B. Paul, John Beatty and Costas B. Krimbas. 2001. "Interview of Richard C. Lewontin." In Rama Singh, Costas Krimbas, Diane Paul and John Beatty (eds.), *Thinking about Evolution: Historical, Philosophical and Political Perspectives*. A Festschrift for Richard C. Lewontin. Cambridge: Cambridge University Press.
- Beatty, John. 2002. "The Historicity of Nature: Everything That Is Might Have Been Different?" In Lewis E. Hahn (ed.), *The Philosophy of Marjorie Grene*. Library of Living Philosophers. LaSalle, Illinois: Open Court.
- Beatty, John. 2002. "Untangling the McClintock Myths: An Essay Review of Nathaniel Comfort's *The Tangled Field: Barbara McClintock's Search for the Patterns of Genetic Control*. Metascience 11: 280-305.
- Beatty, John. 2004. "Chance Variation: Darwin on Orchids." *Philosophy of Science* 73 (5): 629-641.
- Beatty, John. 2006. "Replaying Life's Tape." Journal of Philosophy 103: 336-362.
- Beatty, John. 2006. "Masking Disagreement Among Scientific Experts." Episteme 3: 52-67.
- Beatty, John. 2008. "Chance Variation and Evolutionary Contingency: Darwin, Simpson, *The Simpsons*, and Gould." In Michael Ruse (ed.), *Oxford Handbook of the Philosophy of Biology*. Oxford: Oxford University Press.
- Beatty, John and Piers Hale. 2008. "Water Babies: An Evolutionary Parable." *Endeavour* 32: 141-146.
- Beatty, John. 2009. "Theodosius Dobzhansky." In Michael Ruse and Joseph Travis (eds.), *Evolution: The First Four Billion Years*. Cambridge: Harvard University Press.
- Beatty, John. 2009. "Richard Lewontin." In Michael Ruse and Joseph Travis (eds.), *Evolution: The First Four Billion Years*. Cambridge: Harvard University Press.
- Beatty, John and Eric Cyr Desjardins. 2009. "Natural Selection and History." *Biology and Philosophy* 24: 231-246.
- Beatty, John. 2010. "Reconsidering the Importance of Chance Variation." In Gerd Müller and Massimo Pigliucci (eds.), *Evolution: The Extended Synthesis*, Cambridge: MIT Press.
- Beatty, John and Alfred Moore. 2010. "Should We Aim for Consensus?" Episteme 7: 198-214.
- Beatty, John and Isabel Carrera. 2011. "When What Had to Happen Was Not Bound to Happen: History, Chance, Narrative, Evolution." *Journal of the Philosophy of History* 5: 471-495.
- Beatty, John. 2013. "Chance and Design." In Michael Ruse (ed.), *The Cambridge Encyclopedia* of Darwin and Evolutionary Thought. Cambridge: Cambridge University Press.

- Beatty, John. 2014. "Darwin's Cyclopean Architect." In R. Paul Thompson and Denis Walsh (eds.), *Evolutionary Biology: Conceptual, Ethical and Religious Issues*. Cambridge: Cambridge University Press.
- Beatty, John. 2016. "What Are Narratives Good For?" Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences. 58: 33-40.
- Beatty, John. 2016. "The Creativity of Natural Selection? Part I: Darwin, Darwinism, and the Mutationists." *Journal of the History of Biology* 49: 659-684.
- Beatty, John. 2017. "Narrative Possibility and Narrative Explanation." *Studies in History and Philosophy of Science Part A*. 62: 31-41.
- Beatty, John. 2018. "Consensus: Sometimes It Doesn't Add Up." In Snait Gissis, Ehud Lamm and Ayelit Shavit (eds.), *Landscapes of Collectivity in the Life Sciences*. Cambridge, MA: MIT Press.
- Beatty, John. 2019. "The Creativity of Natural Selection? Part II: The Synthesis and Since." Journal of the History of Biology 52 (4): 705-731.
- Beatty, John, Eric Desjardins and David Crawford. Forthcoming. "What Does It Mean to Say That 'History Matters' (Causally Speaking)?" In C. Kenneth Waters, William Woodward and Christopher Hitchcock (eds.), *Causality in Biology. Minnesota Studies in Philosophy* of Science. Minneapolis: University of Minnesota Press.
- Beatty, John. Forthcoming. "Narrative Solutions to a Common Evolutionary Problem." In Mary S. Morgan, Kim M. Hajek and Dominic J. Berry (eds.), *Narrative Science: Reasoning, Representing and Knowing Since 1800.* Cambridge: Cambridge University Press.

### **Articles in Preparation**

- "It Pleased God that . . . . Capricious God and Capricious Nature in the Darwinian Revolution." Here I discuss ways in which the distinction between chance and design had become blurry in the literature of natural history and natural theology, and the reasons for which, and respects in which, Darwin sought to keep chance and design separate.
- "Consensus in the United Nations and in the UN Intergovernmental Panel on Climate Change." The first item under "Procedures" in the "Principles Governing IPCC Work" reads: "In taking decisions . . . , the Panel, its Working Groups and any Task Forces shall use all best endeavours to reach consensus." The meaning of "consensus" is unspecified. The IPCC is an agency of the United Nations. Interestingly, the UN General Assembly increasingly employs "consensus" procedures. Also interestingly, the UNGA "Rules of Procedure," like the IPCC "Procedures," do not elaborate on the meaning of "consensus."

As I explain, "consensus" in both the IPCC and the UNGA means that there is "no objection" – no voiced objection – to whatever is being proposed. Which can be and often is mistaken for unanimous agreement, or a supermajority vote, but is importantly different from both. In fact, it is not a vote of any sort (which means it is contrary to the majority and super-majority votes explicitly mandated by the UNGA's rules). I consider historical reasons for the adoption of this form of decision procedure in the UNGA and the IPCC, as well as the appropriateness of this form of procedure in such disparate – diplomatic vs. fact-seeking – contexts. And I speculate as to why the meaning of "consensus" is not specified in either setting.

"Karl Popper, Darwinism and Destiny." An attempt to make sense of Popper's changing attitudes toward Darwinism by considering them in the context of developments in biology and politics, and in connection with Popper's political philosophy, and by comparing Popper with some of his contemporaries, like Hannah Arendt and Friedrich von Hayek.

### **Invited Lectures and Refereed Symposia**

University of Connecticut, Department of Philosophy, Spring 1980. University of Massachusetts, Amherst, Department of Philosophy, Spring 1980. Third International Congress of History and Philosophy of Science, Montreal, Summer 1980. Philosophy of Science Association Biennial Meetings, Toronto, Fall 1980 University of Arizona, Departments of History and Philosophy, Spring 1981. Arizona State University, History and Philosophy of Science Lecture Series, Spring 1981. Bard College, Honors Program Lecture Series, Spring 1981. Woods Hole Oceanographic Institute, Summer 1981. University of Maryland, History and Philosophy of Science Lecture Series, Spring 1982. Harvard University, Colloquium on the History and Philosophy of Twentieth Century Science, Spring 1982. NEH Conference: Philosophy of Biology, Cornell University, Summer 1982. University of California, Davis, History and Philosophy of Science Lecture Series, Fall 1982. University of Bielefeld, Public Lecture, Spring 1983. University of Munich, Institute for the History of Science, Spring 1983. University of Munich, Institute for Statistics and the Foundations of Science, Spring 1983. University of Heidelberg, Department of Philosophy, Spring 1983. NEH Conference: Philosophical Issues in Aristotle's Biology, Williams College, Summer 1983. University of Arizona, Department of Philosophy, Fall 1983. Arizona State University, Department of Zoology, Spring 1984. NEH Conference: Integrating Scientific Disciplines, Georgia State University, Spring 1984. Arizona State University, Sigma Xi Lecture Series, Fall 1984. Philosophy of Science Association Biennial Meetings, Chicago, Fall 1984. Stanford University, Program in the History of Science, Spring 1985. American Philosophical Association, Pacific Division, San Francisco, Spring 1985. University of Minnesota, Department of Genetics and Cell Biology, Spring 1986. St. Johns University of Minnesota, Lecture Series in History and Philosophy of Science, Spring 1986.

Canadian Society for the History and Philosophy of Science, Winnipeg, Spring 1986. University of Chicago, Committee on the Conceptual Foundations of Science, Fall 1986. Northwestern University, Program in Science, Technology, and Values, Fall 1986.

Northwestern University, Program in Science, Technology, and Values, Fail 1980.

University of Toronto, Department of History and Philosohy of Science, Winter 1987.

- University of Minnesota, Wangensteen Lecture Series in the History of Biology and Medicine, Spring 1987.
- NEH Conference: Julian Huxley: Biologist and Statesman for Science, Rice University, Fall 1987.
- Tulane University, Conference on Newton's Legacy: The Origins and Influence of Newtonian Science, Fall 1987.
- University of Pennsylvania, Department of History and Sociology of Science, Spring 1988. University of Minnesota, Department of Geography, Spring 1988.

NSF Conference: Foundations of Evolutionary Biology, Ohio State University, Summer 1988.

University of Colorado, Program in History and Philosophy of Science, Fall 1988.

Purdue University, Department of Biology, Fall 1988.

- University of Minnesota at Morris, Freshman Colloquium Series, Fall 1988.
- University of California at San Diego, Science Studies Program, Fall 1988.

University of Georgia, Department of Genetics, Spring 1989.

- American Society of Zoologists, Section on the History of Science, Conference on American Biology, Friday Harbor, Washington, Spring 1989.
- Boston University, Colloquium in the History and Philosophy of Science, Spring 1989.

University of Minnesota, Department of Philosophy, Fall 1989.

- Academy of Sciences of the U.S.S.R., Moscow, Council for Philosophical and Social Problems, Fall 1989.
- Virginia Polytechnic Institute, Departments of Biology, Philosophy, and Science Studies, Spring 1990.
- University of Michigan, Biology Colloquium, Spring 1990.
- University of Minnesota, College of Biological Sciences, "The Dean's Lecture," Spring 1990.
- Academy of Sciences of the U.S.S.R., Leningrad, Conference on Theodosius Dobzhansky and the Evolutionary Synthesis, Fall 1990.
- Center for Interdisciplinary Research, University of Bielefeld, Conference on Evolutionary Biology and Human Culture, Fall 1990.
- University of Pittsburgh, Honors Program, Winter 1991.
- University of Minnesota, Sampler Lecture Series, Winter 1991.
- American Philosophical Association, Midwest Division, Chicago, Spring 1991.
- Center for Interdisciplinary Research, University of Bielefeld, Conference on Evolutionary Biology and Human Culture, Fall 1991.
- History of Science Society, "Critical Problems" Conference, Madison, Fall 1991.
- Johns Hopkins University, Department of the History of Science and Technology, Fall 1991.

Johns Hopkins University, Department of Philosophy, Fall 1991.

Washington University, Department of Biology, Winter 1992.

Iowa Humanities Symposium, University of Iowa, Winter 1992.

Tufts University, Department of Philosophy, Spring 1992.

Field Museum of Natural History, 15th Annual Spring Systematics Symposium, Spring 1992.

University of Guelph, Department of Biology and Department of Zoology, Guelph, Ontario, Fall 1992.

Max Planck Institute for History and Philosophy of Science, Berlin, Winter 1993. Pittsburgh-Konstanz Colloquium in the Philosophy of Science, Pittsburgh, Fall 1993. Notre Dame, Department of History and Philosophy of Science, Spring 1994. MIT, Program in Science, Technology and Society, Mellon Workshop on "Institutional and

- Disciplinary Contexts of the Life Sciences in the Late Twentieth Century," Spring 1994. University of Cincinnati, Biology Department, Spring 1994.
- Institut Universitaire Kurt Bösch, Sion, Switzerland, Evolution Workshop, Fall 1994.
- Northwestern University, Department of Philosophy, Fall 1994.
- Arizona State University, Department of Zoology, Spring 1995.
- University of Texas, Department of Philosophy, Spring 1995.
- Notre Dame, Conference on the Human Genome Project, Fall 1995.
- Erwin Schrödinger Institut and Internationales Forschungszentrum Kulturwissenschaften,
  - Workshop on "The Changing Metaphysics of Science," Winter 1996.
- University of Oklahoma, Department of the History of Science, Fall 1996.
- Philosophy of Science Association Biennial Meetings, Cleveland, Fall 1996.
- Journal of the History of Biology Workshop, History of Science Society Meetings, Atlanta, Fall 1996.
- Carnegie Mellon University, Department of History, Spring 1997.
- Cornell University, Department of Science and Technology Studies, NSF Workshop on "Knowledge and Its Discontents: Science, Expertise, Modernity," Spring 1997.
- American Association for the Advancement of Science, Symposium on "Paradigms for the Sciences: Past, Present and Future," Winter 1998.
- Oregon State University, Departments of History and Biology, Conference on "The History of Natural History," Winter 1998.
- Max Planck Institute for the History of Science, Berlin, Conference on "Postgenomics: The History and Future of the Human Genome Project," Summer 1998.
- American Philosophical Society, Russian-American Exchange, sponsored by the History of Science Society, Summer 1998.
- University of Pittsburgh, NSF Workshop on "Science and Values," Fall 1998.
- International Union for the History and Philosophy of Science, Symposium on Historiography, Fall 1998.
- Princeton University, Joint Colloquium sponsored by Princeton's Program in the History of Science and University of Pennsylvania's Department of History and Sociology of Science, Spring 1999.
- Indiana University, Department of the History and Philosophy of Science, Spring 1999.
- MIT, Program in Science, Technology and Society, Lecture Series in History and Philosophy of Biology, Spring 2000.
- Dalhousie University, Department of Philosophy, Fall 2000.
- University of Bremen, The Helmholtz Lectures ("Three Lectures on Darwinism"), Department of Philosophy, Fall 2000.
- Max Planck Institute for the History of Science, Berlin, Workshop on "Darwinian Heresies." Fall 2000.
- Florida State University, Department of Philosophy, Spring 2001.
- Washington University, History and Philosophy of Science Lecture Series, Fall 2002.
- Washington University, Department of Biology and All-University Assembly Series, The Thomas Hall Lecture, Fall 2002.

University of Texas, Department of Philosophy, Fall 2002.

- Philosophy of Science Association, Biennial Meetings, special session in honor of Stephen Jay Gould, Fall 2002
- University of British Columbia, Department of Philosophy, Fall 2002.
- Charles University, Prague, Department of Philosophy and Institute for Theoretical Studies, Emmanuel Rádl Symposium, Spring 2003.
- Tel Aviv University, Cohn Institute for the History and Philosophy of Science and Ideas, Spring 2003.
- Hebrew University, Jerusalem, Van Leer Institute and Edelstein Center for History and Philosophy of Science, Symposium on "Foundational Issues in Biology," Spring 2003.
- Hebrew University, Jerusalem, Department of Genetics, Spring 2003.
- U.S. National Academies of Science, Meeting of the Science, Technology and Law Panel, Fall 2003.

Canadian Society for History and Philosophy of Science. Plenary Address. Summer 2004.

- Vienna International Summer University / Vienna Circle Institute 2004 Course, "Scientific Objectivity" (with Michael Friedman and Helen Longino).
- Philosophy of Science Association, Biennial Meetings, Symposium on Chance in Biology, Fall 2004.
- Princeton University, Department of History, History of Science Workshop, Fall 2004.
- American Association for the Advancement of Science, Annual Meetings, Winter 2005, Symposium on New Perspective on Science in the Cold War
- University of Calgary, History and Philosophy of Science Research Group, Winter 2005.
- University of Calgary, Departments of History, Philosophy and Biology, Joint Colloquium, Winter 2005.
- University of California at San Diego, Program in Science Studies, Winter 2005.
- University of Pittsburgh, Center for History and Philosophy of Science, Fall 2005.
- National Autonomous University of Mexico, Institute for Philosophical Investigations, Workshop on Contingency and Explanation, Fall 2005.
- Third Annual Episteme Conference, Toronto, Summer 2006.
- Philosophy of Science Association, Biennial Meetings, Symposium on How to Put Politics Back Into the Philosophy of Science, Fall 2006.
- Peter Wall Institute for Advanced Study, Associates Lecture Series, Spring 2007.
- Duke University, Conference on Chance in Biology, Spring 2007.
- Thirteenth International Congress of Logic, Methodology and Philosophy of Science, Beijing, Summer 2007.
- University of Pennsylvania, Department of Philosophy and Department of History and Sociology of Science, Fall 2007.
- University of California at San Diego, Program in Science Studies, Workshop on Dissent in Science, Spring 2008.
- International Society for the History of Philosophy of Science, Vancouver, Summer 2008.
- Konrad Lorenz Institute, Altenberg, Austria, Workshop on Extending the Evolutionary Synthesis, Summer 2008.
- University of Colorado, Department of Philosophy, Fall 2008.
- University of Pennsylvania, Distinguished International Scholar, Fall 2008.
- University of Oklahoma, Department of the History of Science, Spring 2009.

- University of Connecticut, Heinz and Virginia Herrmann Distinguished Lecture on Human Rights and the Life Sciences, Spring 2009
- University of Cincinnati, Department of Philosophy, Spring 2009
- Oregon State University, Horning Lectures (3), Spring 2009
- Institute for History and Philosophy of Science, University of Paris 1, Spring 2009.
- Dalhousie University, Departments of Biology and Philosophy, Darwin Workshop, Fall 2009.
- National Autonomous University of Mexico, Department of Biology and Institute for Philosophical Investigations, Darwin Conference, Fall 2009.
- National Autonomous University of Mexico, Institute for Philosophical Investigations, Course on "Historicity and Science."
- University of Toronto, Institute for History and Philosophy of Science and Technology, Darwin Conference, Fall 2009.
- National Autonomous University of Mexico, Department of Biology and Institute for Philosophical Investigations, Darwin Conference, Fall 2009.
- University of Western Ontario, Department of Philosophy, Workshop on "Science and Values," Spring 2010.
- University of Western Ontario, Department of Philosophy, Conference on "Integrating Complexity: Environment and History," Fall 2010.
- University of British Columbia, Interdisciplinary Studies Graduate Program, Fortieth Year Anniversary Colloquium, Spring 2011.
- Harvard University, Kennedy School of Government, Workshop on "Science and Technology Studies: The Next Twenty," Spring 2011.
- University of British Columbia, Peter Wall Institute for Advanced Studies, Workshop on "Science and Democracy," Summer 2011.
- University of Minnesota, Center for Philosophy of Science, Workshop on "Causation in Biology," Summer 2012.
- University of Toronto, Consortium for the History and Philosophy of Biology (Toronto-Duke-Paris-Montréal), Keynote Lecture, Summer 2012.
- University of Cincinnati, Annual Philosophy Colloquium, "Socially Engaged Philosophy of Science," Fall 2012.
- University of Calgary, Department of Philosophy, Fall 2012.
- Tel Aviv University, Cohn Institute for the History and Philosophy of Science and Ideas, Bar-Hillel Colloquium for the History, Philosophy and Sociology of Science, Spring 2013.
- Notre Dame, Department of Philosophy, Conference on "Cognitive Attitudes in the Sciences," Summer 2013.
- University of Geneva, Department of Philosophy, Workshop on "The Question 'What If?' in the Sciences and the Humanities," Summer 2013.
- Max Planck Institute for the History of Science, Berlin, Workshop on "Narrative Thinking in the Sciences," Summer 2013.
- Oxford University, Workshop on "Contingency and Order in History and the Sciences," Summer 2013.
- Virginia Polytechnic University, Department of Science and Technology in Society, Burian-McNabb Distinguished Lecture, Spring 2014.
- University of Toronto, Institute for the History and Philosophy of Science and Technology, Symposium in Honor of Michael Ruse, Spring 2014.

- University of Wisconsin at Madison, Department of Philosophy, "Philosophy of Biology at Madison, Conference 3," Keynote Address, Summer 2014.
- Oxford University, Conference on "Evolution and Historical Explanation: Contingency, Convergence, and Teleology," Keynote Address, Summer 2014.
- Washington University, Department of Biology, Symposium in Honor of Garland E. Allen, Fall, 2014.
- History of Science Society and Philosophy of Science Association, Symposium on "Narrating Order," Fall 2014.
- University of Washington, Department of Philosophy, Fall 2014.
- Dalhousie University, Department of Philosophy, Spring 2015.
- Tel Aviv University and Hebrew University, Conference on "Networks of Collectivity," Summer 2015.
- Northwestern University, Department of Philosophy, Workshop on "Disagreement," Summer 2015
- University of Calgary, Department of Philosophy, Workshop on "Historical Investigations in Science," Fall 2015.
- University of British Columbia, Institute for Resources, Environment and Sustainability, Spring 2016.
- Tsinghua University, Beijing, "Tsinghua-Pittsburgh Seminar for the History and Philosophy of the Life Sciences, five-lecture series on "Replaying Life's Tape," Summer 2016.
- Beijing Normal University, Department of Philosophy, Summer 2016.
- University of Calgary, Department of Philosophy, Spring 2017.
- University of Tilburg, Netherlands, Tilburg Institute for Logic, Ethics and Philosophy of Science, Workshop on "Group Decision-Making in Expert Scientific Committees," Spring 2017.
- Case Western University, Department of Philosophy, "Gundzik Visiting Scholar," Spring 2017. University of Konstanz, Department of Philosophy," Workshop on "Analogies in Philosophy,

Science and Law," Summer 2017.

- Ohio University, Annual Lecture Series in History and Philosophy of Science, Fall 2017.
- University of Pittsburgh, Center for the Philosophy of Science, Fall 2017.
- University of Pittsburgh, Center for the Philosophy of Science, Spring 2018.
- KU Leuven, Belgium, Department of Philosophy, Workshop on "Historical and Scientific Explanation," Summer 2018.

Florida State University, Department of Philosophy, Fall 2018.

- Philosophy of Science Association, Biennial Meetings, Symposium on "Consensus," Fall 2018.
- London School of Economics, Department of Economic History, "Narrative Science Project" Workshop, Spring 2019.
- University of British Columbia, Okanagan, Department of Philosophy, Spring 2020.
- Keynote, Conference on "Climate Change and Future Studies", University of Coruña, Spain, POSTPONED COVID.
- Workshop "Contingency and Determinism in Complex Adaptive Systems," Santa Fe Institute (Santa Fe, New Mexico), POSTPONED COVID.
- Invited Commentator, "Narrative as Practice in the Life Sciences," History of Science Society, POSTPONED COVID.

### **Professional Offices and Panels**

- U.S. National Committee, International Union of History and Philosophy of Science, National Academy of Sciences / National Research Council, 2000-2003.
- American Association for the Advancement of Science, Committee on Council Affairs (steering committee) 1998-2000.
- American Association for the Advancement of Science, Council 1997-2000.
- American Association for the Advancement of Science, Section L, History and Philosophy of Science, Chair Elect / Chair / Past Chair, 2002-2005.
- American Association for the Advancement of Science, Section L, History and Philosophy of Science, Member at Large, 1990-1994.
- National Science Foundation, Comparative Biology IGERT (Integrative Graduate Education and Research Traineeship Program) Panel, 2000-2001.
- National Science Foundation, Science and Technology Studies Panel, 1994-1997.
- Canadian Society for History and Philosophy of Science, Advisory Board, 2003-2006, 2008-2010.
- History of Science Society, Governing Council, 1988, 1990-1992, 2006-2009.
- History of Science Society, Nominating Committee 1990-1991, 2008-2009.
- History of Science Society, Committee on Research and the Profession, 1988-1992.
- Philosophy of Science Association, Governing Board, 1994-1996.
- Vienna International Summer University / Vienna Circle Institute, Advisory and Executive Committees, 2004-present.
- International Society for the History, Philosophy, and Social Studies of Biology, Nominating Committee, 2013-present; Education Committee 2013-present
- Society for the History of the Philosophy of Science, Program Committee, 2001-2002, 2007-2008.

#### **Other Professional Activities and Positions**

Co-Director (with Jane Maienschein and James Collins), Seminar in the History of Biology, Marine Biological Laboratory, Woods Hole, Massachusetts, 1990-present.

#### **Editorial Boards**

Isis (journal of the History of Science Society), 1991-1994. Philosophy of Science (journal of the Philosophy of Science Association), 1984-1999. Biology and Philosophy, 1984-2000. The Mendel Newsletter, 1991-present. Perspectives on Science: Historical/Philosophical/Social, 1992-present. History and Philosophy of the Life Sciences, 1998-2011.

### **Referee Work**

Philosophy of Science **Biology and Philosophy** British Journal for the Philosophy of Science Philosophy Compass History of Science Isis Journal of the History of Biology History of the Philosophy of Science Perspectives on Science: Historical/Philosophical/Social History and Philosophy of the Life Sciences **Evolution** American Naturalist Journal of Heredity Systematic Botany Paleobiology Quarterly Review of Biology Philosophy and Theory in Biology Science and Education Studies in History and Philosophy of Science National Science Foundation National Endowment for the Humanities Social Sciences and Humanities Research Council of Canada University of Chicago Press Harvard University Press **MIT Press** University of Minnesota Press **Oxford University Press Cornell University Press** University of California Press **Temple University Press** Sinauer Press **Columbia University Press** 

### **Selected University Committees and Department Responsibilities**

University of British Columbia (2003-present)

Department of Philosophy, Acting Head, 2006-2007. Department of Philosophy, Graduate Advisor, 2007-2008. Graduate Program in Science and Technology Studies, Chair, 2012-2014. Interdisciplinary Graduate Studies Program, Chair, 2004-2010. Peter Wall Institute for Advanced Studies, Advisory Committee, 2004-2014. Green College, Academic Committee, 2004-2007. Green College, Policy and Planning Committee, 2008-2009. Killam Postdoctoral Fellowship Adjudication Committee, 2005-2006.

University of Minnesota (1985-2003)

University Council on Liberal Education, 1996-1999.

University Senate, 1992-1995.

University Senate Social Concerns Committee, 1986-1991; Chair, 1989-1991; 1999-2003.

University Faculty Research Fellowship Committee, 1994-1998.

- University Senate, Nominating Committee for the Faculty Consultative Committees, Chair, 1999-2000.
- University Graduate School Fellowship Committee, 2000-2001.

College of Biological Sciences, General Biology Program, Director, 1994-1998.
College of Biological Sciences, General Biology Advisory Committee, 1992-2003.
College of Biological Sciences, Undergraduate Major in "Biology, Society and the Environment," in charge of development, 1998-2003.
College of Biological Sciences, Ad Hoc Committee to Revise the Introductory Biology Curriculum, 1990-1991.

Department of Ecology, Evolution and Behavior, Advisory Committee, 1991-1993, 1996-1998, 1999-2003.

Department of Ecology, Evolution and Behavior, Colloquium Chair, 1986-1987. Program in History of Science and Technology, Director of Graduate Studies, 1990-1995. Program in History of Science and Technology, Colloquium Chair, 1985-1991, 1997-2003.

### **K-12 Curriculum Development Activities**

- Biological Sciences Curriculum Study (BSCS), Evolution Curriculum Development, Board of Advisors, funded by the National Science Foundation, 2001-2003.
- "Evolution Workshop," for high school teachers, funded by the Eisenhower National Clearinghouse for Mathematics and Science Education, June 2000, July 2002.

- "The History and Nature of Science," a workshop for high school teachers, sponsored by the Minnesota Humanities Commission, June 2000, June 2001.
- "Biology Life Science Teacher Conference," a workshop for high school teachers, sponsored by the Science Museum of Minnesota, December 2000.

#### **Graduate Students (completed)**

- Paolo Palladino (Ph.D. 1990, University of Minnesota), Department of History, University of Lancaster.
- Joe Cain (Ph.D. 1995, University of Minnesota), Department of Science and Technology Studies, University College London, U.K.
- Christian Young (Ph.D. 1997, University of Minnesota), Department of Biology, Alverno College.
- Roberta Millstein (Ph.D. 1997, University of Minnesota, co-advised by Kenneth Waters), Department of Philosophy, University of California at Davis.
- Diana Kenney (M.A. 1998, University of Minnesota), Science Writer, Marine Biological Laboratory.
- Carl Chung (Ph.D. 2000, University of Minnesota, co-advised by Kenneth Waters), Department of Philosophy, Century College of Minnesota.
- Tania Munz (M.A. 2000, University of Minnesota); Tania subsequently took her Ph.D. in History of Science at Princeton and is currently Lecturer in Science in Human Culture, and Weinberg College Adviser at Northwestern University.
- Karin Matchett (Ph.D. 2002, University of Minnesota, co-advised by Sally Kohlstedt), Science Writer and Grants Coordinator, University of Minnesota.
- Kevin Francis (Ph.D. 2002, University of Minnesota), Science Inquiry Unit, Evergreen College, Olympia, WA.
- Juan Ilerbaig (Ph.D. 2002, University of Minnesota, co-advised by Sally Kohlstedt), Faculty of Information, University of Toronto.
- Jay Aronson (Ph.D. 2004, University of Minnesota), Department of History, Carnegie Mellon University.
- Georgina Montgomery (Ph.D. 2005, University of Minnesota, co-advised by Sally Kohlstedt), Lyman Briggs School and Department of History, Michigan State University.

- Margot Iverson (Ph.D. 2007, University of Minnesota, co-advised by Sally Kohlstedt), Independent research/writing/editorial work on health-related topics, public policy, and history of science and medicine, Boston.
- Eric Desjardins (Ph.D. 2009, University of British Columbia), Department of Philosophy, University of Western Ontario.
- Yuichi Amitani (Ph.D. 2011, University of British Columbia), Postdoctoral Fellow, Center for the Philosophy of Science, University of Pittsburgh (2011-2012). Beginning Fall 2013, Assistant Professor, Tokyo University of Agriculture.
- S. Andrew Inkpen (Ph.D. 2014, University of British Columbia), Social Sciences and Humanities Research Council (Canada) Postdoctoral Fellow, and Visiting Assistant Professor, Department of History and Philosophy of Science, University of Pittsburgh. Now Assistant Professor, Department of Philosophy, Mt. Allison University, New Brunswick.
- Margareta Chiapetta (M.A. 2014, University of British Columbia, Program in Science and Technology Studies). Now in the STS Ph.D. Program at York University.
- Alirio Rosales (Ph.D. 2014, University of British Columbia). Instructor, Department of Philosophy, Thompson Rivers University, Greater Vancouver.
- Shoshana Deutsh (M.A. 2015, University of British Columbia, Program in Science and Technology Studies). Now in the STS Ph.D. Program at Cornell University.

Jiwon Byun (Ph.D. 2017, University of British Columbia).

Eric Anderson (M.A. 2020, University of British Columbia). Now in HPS Ph.D. Program at University of Pittsburgh.

## **Graduate Students (current)**

Serban Dragulin (Ph.D. Candidate), Department of Philosophy. Kinley Gilette (Ph.D. Candidate), Department of Philosophy. Cristian Hernandez (MA), Science and Technology Studies.

### **Postdoctoral Fellows**

Peter Sloep (Ph.D., Theoretical Biology, University of Groningen; postdoc 1983-1984), Center for Learning Sciences and Technology, Open University of the Netherlands.

- Lisa Gannett (Ph.D., Department of Philosophy, University of Western Ontario; postdoc 1999-2000, University of Minnesota, co-supervised by Kenneth Waters); Department of Philosophy, St. Mary's University, Halifax.
- Piers Hale (Ph.D., Department of History, University of Lancaster, U.K.; postdoc 2003-2004, University of British Columbia); Department of the History of Science, University of Oklahoma.
- Ian Hesketh (Ph.D., Department of History, York University, York, Ontario; postdoc 2006-2008, University of British Columbia). Associate Professor, Institute for Advanced Studies in the Humanities, University of Queensland, Brisbane.
- Alison McConwell (Ph.D., Department of Philosophy, University of Calgary); postdoc 2020-2021. Assistant Professor, Department of Philosophy, University of Massachusetts, Lowell.