

Curriculum Vitae

C. KENNETH WATERS

Department of Philosophy

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Biographical data

Education

Indiana University, Ph.D. 1985, History and Philosophy of Science
Indiana University, M.A. 1984, Philosophy
University of Vermont, B.A. (*Magna Cum Laude*) 1979, History and Philosophy of Science

Academic appointments

Canada Research Chair in Logic and Philosophy of Science, University of Calgary, since June 2014
Professor of Philosophy, University of Calgary, since June 2014
Samuel Russell Chair of Humanities, University of Minnesota, July 2011 – May 2014
Professor of Philosophy, University of Minnesota, August 2008 – May 2014
Director of the Minnesota Center for Philosophy of Science, September 1996 – May 2014
Scholar of the College, College of Liberal Arts, University of Minnesota, 2009 – 2012
John Dolan Professor of Philosophy, two year term professorship July 2007 - 2009
Associate Professor of Philosophy, University of Minnesota, September 1994–August 2008
Visiting Scholar, Cambridge University, July 1994–August 1995
Assistant Professor of Philosophy, University of Minnesota, September 1991–September 1994
Assistant Professor of Philosophy, Rice University, July 1987–June 1991
Visiting Fellow, Center for Philosophy of Science, University of Pittsburgh, January–June 1990
Visiting Assistant Professor of Biochemistry and Cell Biology, Rice University, Fall 1989
Assistant Professor of Philosophy, John Carroll University, September 1984–June 1987

Scholarship

Books

Scientific Pluralism, volume XIX of the *Minnesota Studies in the Philosophy of Science*, edited with Stephen Kellert and Helen Longino, Minneapolis, MN: University of Minnesota Press, 2006.

Julian Huxley: Biologist and Statesman of Science, edited with Albert Van Helden, Houston, TX: Rice University Press, 1992, 344 pages. [jointly edited]

Books forthcoming

Causal Reasoning in Biology, *Minnesota Studies in the Philosophy of Science*, edited with Michael Travisano and James Woodward

The Language of Nature: Reconsidering the Mathematization of Science, *Minnesota Studies in the Philosophy of Science*, to be edited with Geoffrey Gorham, Benjamin Hill, and Edward Slowik

Books in Progress

Why Genetics Succeeds: An Epistemology of Scientific Practice, sole author

Articles

“Shifting Attention From Theory to Practice in Philosophy of Biology” in M.C. Galavotti, D. Dieks, W.J. Gonzalez, S. Hartmann, T. Uebel, and M. Weber (eds.) *New Directions in the Philosophy of Science*, ed. by. Berlin: Springer International Publishing, 2014, pp. 121-139. [pre-print on PhilSci-Archive.pitt.edu]

“Okasha’s Unintended Argument for Toolbox Theorizing”, *Philosophy and Phenomenological Research*, 82 (1) (2010): 232-240. [pre-print of non-abridged version on PhilSci-Archive.pitt.edu]

“How Practical Know-how about Experimentation Contextualizes Theoretical Knowledge”, *Philosophy of Science*, Vol. 75, no. 5 (2008): 707- 719. [pre-print on PhilSci-Archive.pitt.edu]

“Beyond Theoretical Reduction and Layer-cake Antireduction: How DNA Retooled Genetics and Transformed Biological Practice”, in Michael Ruse (ed.) *Oxford Handbook to the Philosophy of Biology*. New York, NY: Oxford University Press, 2008, pp. 238–62. [pre-print on PhilSci-Archive.pitt.edu]

“The Nature and Context of Exploratory Experimentation: An Introduction to Three Case Studies of Exploratory Research”, *History and Philosophy of the Life Sciences*, Volume 29 (2007): 275–284. [pre-print on PhilSci-Archive.pitt.edu]

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- “Causes that Make a Difference”, *The Journal of Philosophy*. Volume CIV, Number 11 (2007): 551–579. [pre-print on PhilSci-Archive.pitt.edu]
- “Julian Huxley”, *The New Dictionary of Scientific Biography*, Farmington Hills, MI: Frank Menchaca, Charles Scribner’s Sons, imprint of Thomas Gale, 2007.
- “Molecular Genetics”, *Stanford Encyclopedia of Philosophy*
<http://plato.stanford.edu/entries/molecular-genetics/>, 2007.
- “The Pluralist Stance” with Stephen Kellert and Helen Longino, in *Scientific Pluralism, Volume XIX of the Minnesota Studies in the Philosophy of Science*, edited with Stephen Kellert, Helen Longino, Minneapolis, MN: University of Minnesota Press, 2006, pp. 7–29.
- “A Pluralist Interpretation of Gene-centered Biology” in *Scientific Pluralism, Volume XIX of the Minnesota Studies in the Philosophy of Science*, edited by Stephen Kellert, Helen Longino, and C. Kenneth Waters, Minneapolis, MN: University of Minnesota Press, 2006, pp. 190–214.
- “Why Genic and Multilevel Selection Theories are Here to Stay”, *Philosophy of Science* 72 (2) (2005): 311–33.
- “Julian Sorrell Huxley”, *Nature Encyclopedia of Life Sciences*, Nature Publishing Group, eMacmillan, <http://www.els.net/els/public/home/>, 2005.
- “What Concept Analysis Should Be (and why competing philosophical analyses of gene concepts cannot be tested by polling scientists)”, *History and Philosophy of the Life Science* 26 (2004): 29–58.
- “What was Classical Genetics?”, *Studies in History and Philosophy of Science* 35 (2004): 783–809.
- “The Arguments in Darwin’s *Origin of Species*”, in *The Cambridge Companion to Darwin*, edited by Jonathan Hodge and Gregory Radick, Cambridge: Cambridge University Press, 2003, pp. 116–139.
- “Molecules Made Biological”, *Revue Internationale de Philosophie*, 4/2000—n 214—(2000), pp. 539–64. Condensed and translated: “Le gene moléculaire: la vie réduite, ou les molécules promues?” *Biofur*, November 2001. [invited]
- “Causal Regularities in the Biological World of Contingent Distributions”, *Biology and Philosophy*, 13 (1998): 5–36.
- “Genes Made Molecular”, *Philosophy of Science*, 61 (1994): 163–85.
- “Revising our Picture of Huxley”, in *Julian Huxley: Biologist and Statesman of Science* (1992), C. Kenneth Waters and Albert Van Helden (editors), Houston, TX: Rice University Press, pp. 1–27.
- “Tempered Realism about the Force of Selection”, *Philosophy of Science*, 58 (1991): 553–73.

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- "Why the Anti-reductionist Consensus Won't Survive: The Case of Classical Mendelian Genetics", in *PSA 1990 I* (1990): pp. 125–39.
Reprinted in Elliott Sober (ed.) *Conceptual Issues in Evolutionary Biology*, 2nd Edition (1993) and 3rd edition (2006). Cambridge, MA: Bradford, The MIT Press.
- "Rosenberg's Rebellion", *Biology and Philosophy* 5 (1990): pp. 225–39.
- "The Illusory Riches of Sober's Monism", with Philip Kitcher and Kim Sterelny, *Journal of Philosophy* 85 (1990): 158–61.
- "Confessions of a Creationist", in Nicholas Rescher, ed., *Evolution, Cognition, and Realism*, CPS Publications, University Press of America, Lanham, Maryland (1990): pp. 79–90. (This paper concerns meta-issues in epistemology; its subject matter is not biological or theological creationism.)
- "Relevance Logic Brings Hope to Hypothetico-deductivism", *Philosophy of Science* 54 (1987): 453–64.
- "Taking Analogical Inference Seriously: Darwin's Argument from Artificial Selection", *PSA 1986 I* (1986): pp. 502–13.
- "Why Chisholm's Analysis of Justification Won't Do", *Analysis* 46 (1986): pp. 134–7.
- "Natural Selection without Survival of the Fittest", *Biology and Philosophy* 1 (1986): pp. 207–25.

Letters in scientific journals

- "The Conceptual Basis of a Non-equilibrium Theory of Succession", *Trends in Ecology and Evolution* 5 (1990): p. 123.

Book reviews

- Review of *Biology and Philosophy* by Elliott Sober, *Isis*, **86** (1), (March, 1995): pp. 147–48.
- Review of *Taking Darwin Seriously* by Michael Ruse, *Teaching Philosophy* 12 (1990): pp. 179–81.

Presentations

- Upcoming talks at the APA Central Division (group symposium; Chicago, IL; February 2015), APA Pacific Division (contributed symposium; San Francisco; April 2015), Bristol University (May 2015), University of Cambridge HPS (May 2015), University of Cambridge Philosophy of Science (May 2015), European Research Council Project on Perspectival Realism (July 2015), Eighth Fellows Quadrennial Conference (Pittsburgh Center for Philosophy of Science; Lund, Sweden; July 2015), Presidential Address (PSA 2016, November 2016).

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- “How to Naturalize Metaphysics; Insights from Biological Practices”, University of Cologne (Cologne, Germany; June 29, 2015)
- “Comments on *Beyond Versus*”, Author Meets Critics Symposium, American Philosophical Association Pacific Division Conference (Vancouver, BC; April 4, 2015)
- “Why Genetics Succeeds; An Epistemology of Scientific Practice”, invited keynote lecture at University of Calgary Graduate Student Conference (Calgary, AB; March 14, 2014)
- “How to Naturalize Metaphysics; Insights from Biological Practices”, Southern California Philosophy of Biology Group (Irvine, CA; February 28, 2014)
- “Why Genetics Succeeds; An Epistemology of Scientific Practice”, invited lecture, Department of Logic and Philosophy of Science, University of California, Irvine (Irvine, CA; February 27, 2014)
- “Gene Causation”, invited lecture, Interdisciplinary Research Forum (organized by graduate students), University of Calgary (Calgary, Alberta; February 2, 2015)
- “Shifting Philosophical Attention from Individuals to Individuating”, Keynote Address, Taiwan Conference on Scientific Individuation in Biology and Experimental Sciences at National Chung Cheng University (Chia-Yi, Taiwan; December 9, 2014)
- “What Should Every Student Know about Philosophy of Science and Scientific Reasoning?”, invited presentation for panel discussion, “Re-examining Science, 2nd Asian Regional Conference of the International History, Philosophy, and Science Teaching Society” (Taipei, Taiwan; December 6, 2014)
- “Actual Difference Makers and Potential Difference Makers; What Questions Might Behavioral Genetics Answer?”, invited presentation, John Templeton Foundation meeting of consultants, (Miami, FL; November 1, 2014)
- “Reconceiving the Success of Science; Lessons from the Practice of Genetics”, invited lecture, Department of Biology and Department of Philosophy, Hofstra University (Hempstead, NY; October 23, 2014)
- “Reconceiving the Success of Science in Terms of Practice”, Calgary Summit of Philosophers of Science, invited lecture, University of Calgary (Calgary, Alberta; September 26, 2014)
- “How Genetics Succeeds: An Epistemology of Scientific Practice”, invited lecture, Annual Lecture Series in Philosophy of Science, Ohio University (Athens, Ohio; February 21, 2014)
- “Causes that Matter in Scientific Practice”, keynote lecture in workshop titled: *Causality in the Biological Sciences; Workshop with C. Kenneth Waters*, University of Cologne (Cologne, Germany; January 17, 2014)

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- “Why Genetics Succeeds: An Epistemology of Scientific Practice”, invited lecture, Kuban State University (Krasnodar, Russia; October 21, 2013)
- “From Conceptual Analysis to the Analysis of Scientific Practice”, International Society for History, Philosophy, and Social Studies of Biology Conference; Montpellier, France (July 2013)
- “Why Genetics Succeeds: An Epistemology of Scientific Practice”, Keynote Speaker, Mississippi Philosophical Association (Starksville, Mississippi, February 2013)
- “Can Experimentation Play the Role of Theorizing in Evolutionary Biology?”, Symposium Organizer and Speaker: Philosophy of Science Association Biennial Meeting (San Diego, CA; November 2012)
- “Shifting Attention from Theory to Practice in Philosophy of Biology”, invited Lecture: Medical School, University of Bologna (Bologna, Italy; October 2012).
- “Shifting Attention from Theory to Practice in Philosophy of Biology”, Main Conference Speaker: New Directions in the Philosophy of Science: Philosophy of Science in a European Perspective, Final Conference sponsored by the European Union (Bertinora, Italy; October 2012)
- “Why Genetics Succeeds: What Genetics Can and Cannot Do for Brain Research”, Keynote Conference Speaker, Conference: University of Munich (Munich, Germany; July 2012):
- “Metaphysical Implications of Conceptual Practice in Genetics”, Submitted Conference Talk: *Quadrennial Fellows Conference* of the Pittsburgh Center for Philosophy of Science (Mugla, Turkey; June 2012):
- “Why Genetics Succeeds: An Epistemology of Scientific Practice”, Invited Lecture: University of Chicago (Chicago, IL; June 2012)
- “Why Genetics Succeeds: An Epistemology of Scientific Practice”, home institution lecture: Samuel Russell Lecture, University of Minnesota (Minneapolis, MN; April 2012)
- “Metaphysical Implications of Conceptual Practice in Genetics”, invited lecture, Bielefeld University (Bielefeld, Germany; April 2012)
- “Why Genetics Succeeds: An Epistemology of Scientific Practice”, “Why Genetics Succeeds: An Epistemology of Scientific Practice”,
- “Why Genetics Succeeds: A Causal Analysis of Scientific Practice, Keynote Speaker, Intermountain West Graduate Philosophy Conference, University of Utah (Salt Lake City; March 2012)
- “Metaphysical Implications of Conceptual Practice in Genetics”, Arizona State University (February 2012)

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- “An Argument for Complex Metaphysics; Based on the Nature of Systematic Inquiry in an Ultimately Messy Biological World”, Philosophy of Science in Europe – European Philosophy of Science and the Viennese Heritage, An International Conference on the 20th Anniversary of the Institute Vienna Circle; Vienna, Austria (December 2011)
- “Why DNA-centered Biological Science Succeeds: A Causal Analysis of Explanatory and Investigative Practice”, London School of Economics; London, Great Britain (November 2011)
- “Why DNA-centered Biological Science Succeeds: A Causal Analysis of Explanatory and Investigative Practice”, University of Missouri, Columbia, MO (October 2011)
- “Somewhat Antirealist Bottom-up Realism”, European Philosophy of Science Association Conference; Athens, Greece (October 2011)
- “Signaling as a Distinctive Kind of Biological Function” (joint presentation with Barton Moffatt), International Society for History, Philosophy, and Social Studies of Biology Conference; Salt Lake City, UT (July 2011)
- “An Argument for Complex Metaphysics; Based on the Nature of Systematic Inquiry in an Ultimately Messy Biological World”, Plenary Speaker, Conference on Metaphysics and the Philosophy of Science, Institute for the History and Philosophy of Science and Technology, University of Toronto, Toronto, Canada (May 2011)
- “Analyzing Gene Causation; Solving Morgan’s Paradox” (two part lecture), Research Center for Philosophy of Science and Technology, Shanxi University, Shanxi, China (March 2011)
- “*Why DNA-centered Biological Sciences Succeed: A Causal Analysis of Scientific Practice*” *Institut für Philosophie der Universität Wien* (Institute of Philosophy, University of Vienna, January 13, 2011)
- “*Chanciness, Robustness, and Historical Contingency in Evolutionary Theorizing*”, Konrad Lorenz Institute, Altenberg, Austria (January 2011)
- “*The Causal Basis of Success in Genetics: A Practice-centered Analysis*, Department of Philosophy, University of Western Ontario, December 2010)
- “*Why DNA-centered Biological Sciences Succeed*” keynote speaker, *European Advanced Seminars in the Philosophy of the Life Sciences*, (Geneva, Switzerland, September 2010)
- “Can Toolbox Theorizing be Objective?”, *Objectivity in Science: What is it? Why Does it Matter? Conference*, University of British Columbia (June 2010)
- “Somewhat Antirealist Bottom-up Realism”, *50th Annual Lecture Series, Pittsburgh Center for Philosophy of Science*, University of Pittsburgh (March 2010)
- “Are Actual Difference Making Causes the Causes that Really Matter”, *Philosophy of Biology*

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Seminar of the IHPST Paris (University Paris 1 Sorbonne) Paris University of Paris 1, Sorbonne (February 2010)

“Are Actual Difference Making Causes the Causes that Really Matter?”, *Barcelona Conference on Causality and Explanation in Physics, Biology, and Economics*, University of Barcelona (February 2010)

“Drawing the Division Between What’s Real and Unreal in Biological Knowledge”, Symposium Paper, *Conference of the European Philosophy of Science*, Amsterdam, Netherlands (October 2009)

“Causes that Matter” 2009 *Conference of the Society for the Philosophy of Scientific Practice*, Minneapolis, MN (June 2009)

“Causes that Matter” 2009 *Meeting of the Behavioral Genetics Association* (June 2009) Minneapolis, MN (June 2009)

Visiting Scholar at University of Cincinnati, presented two seminars on my research and a public lecture in the *Cincinnati Darwiniana Series* “Getting Real about Genetics and Genomics: An Antirealist Perspective” (week of April 27 – May 1, 2009)

“Getting Real about Genetics and Genomics: An Antirealist Perspective” Department of History and Sociology of Science University of Pennsylvania; Philadelphia, PA (April 2009)

“Chance and Contingency in Evolutionary History” Philosophy of Biology Conference at California State University Northridge; Northridge CA (February 2009)

“Beyond Theoretical Reduction and Layer-cake Antireduction: How DNA Retooled Genetics and Transformed Biology” Department of Philosophy, National Taiwan University; Taipei, Taiwan (November 2008)

“An Antirealist View about Fundamental Theories” and “A Realistic View about Practice” Two plenary lectures in workshop and conference, *Models and Evolution in Philosophy of Biology and Economics*, National Chung-Cheng University, Chia-yi, Taiwan (November 2008)

“The Plurality of Formal Approaches Analyzed in Okasha’s *Evolution and the Levels of Selection*” *Philosophy of Science Association Biennial Conference*, Pittsburgh, PA (November 2008)

“Beyond Theoretical Reduction and Layer-cake Antireduction: How DNA Retooled Genetics and Transformed Biology” *Quadrennial Fellows Conference* (Pittsburgh Center for Philosophy of Science), University of Ohio; Athens, OH (July 2008)

“Causes that Matter” plenary speaker at *Conference on Biology and Behavior*, Leibniz University of Hannover; Hannover, Germany (June 2008)

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- “Getting Real about Genetics and Genomics: An Antirealist Perspective” Program in History and Philosophy of Science and Technology, Stanford University; Palo Alto, California (May 2008).
- “Getting Real about Genetics and Genomics: An Antirealist Perspective” Department of Philosophy, University of California, Santa Cruz, California (May 2008).
- “Causes that Make a Difference” Department of Philosophy, University of Maryland, College Park, Maryland (February 2008)
- “Causes that Make a Difference” Department of Philosophy, University of Calgary, Canada (February 2008)
- “Beyond Theoretical Reduction and Layer-cake Antireduction: How DNA Retooled Genetics and Transformed Biology”, Department of Philosophy, University of California, Davis, CA (January 2008)
- “Getting Real about Genetics and Genomics: An Antirealist Perspective” *Meeting of the International Society for the History, Philosophy, and Social Studies of Biology*, Exeter, England (July 2007)
- “Causes that Make a Difference”, Department of Philosophy, University of Calgary (February 2007)
- “Causes that Make a Difference” (February 2007) Department of Logic and Philosophy of Science, University of California, Irvine (May 2007)
- “Distinctions to Draw in Discussions of Reductionism and Emergentism in Biology” *Seven Pines Symposium* (May 2007)
- “Causes that Make a Difference”, refereed symposium paper, *Meeting of the Pacific Division of the American Philosophical Association*, San Francisco, CA (April 2007)
- “Causes that Make a Difference” Studies of Science and Technology Colloquium, University of Minnesota, Minneapolis, MN (March 2007)
- “How Practical Know-how about Experimentation Contextualizes Theoretical Knowledge” *Philosophy of Science Association Biennial Meeting*, Vancouver, Canada (November 2006)
- “Getting Real about Genetics and Genomics: An Antirealist Perspective” Egenis, University of Exeter, England (September 2006)
- “The Concept of an Actual Difference Maker” History and Philosophy of Science Seminar, Washington University, St. Louis, MO (November 2005)

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- “The Concept of an Actual Difference Maker” *Colloquium on Contingency and Scientific Explanation*, El Instituto de Investigaciones Filosoficas, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico (November 2005)
- “Replacing the Homunculi Interpretation of Gene Causation with a Manipulability Interpretation” *Meeting of the International Society for the History, Philosophy, and Social Studies of Biology*, Guelph, Ontario (July 2005)
- “The Real Reason Genes are at the Center of Attention” California Institute of Technology, Pasadena, CA ” (February 2005)
- “How Thinking Differently about the Nature of Scientific Knowledge and Causation Could Transform How We Understand the Implications of Recent Advances in Genomics”, *Philosophy of Science Association Biennial Meeting*, Austin, TX (November 2004)
- “The Real Reason Genes are at the Center of Attention in Molecular Biology” *5th Quadrennial International Fellows Conference*, Rytro Poland (May 2004)
- “The Real Reason Genes are at the Center of Attention” Department of History and Philosophy of Science, Indiana University, Bloomington Indiana (February 2004)
- “What Genes Do”, invited symposium paper *Meeting of the Eastern Division of the American Philosophical Association*, Washington, DC (December 2003)
- "When Conceptual Analysis is Threatened by the Methodology of Social Science", 2003 *Meeting of the International Society for the History, Philosophy, and Social Science of Biology* (July 2003)
- "What Molecular Biology Can Tell us About the Nature of Scientific Knowledge" Keynote Address, *Minnesota Philosophical Association Annual Conference*, The College of St. Benedict, St. Joseph, MN (September 2001)
- "Reductionism and the Gene-centered Approach in Biology" *37th Annual Philosophy Colloquium*, University of Cincinnati, Cincinnati, OH (May 2001)
- "Pluralism, Reductionism and the Gene-centered Point of View" *Werkmeister Conference* Florida State University, Tallahassee, Florida (March 2001)
- "The Gene-centered Point of View," *Philosophy of Science Association Biennial Meeting*, Vancouver, Canada (October 2000)
- 1998 *Helmholtz Lectures* at the University of Bremen, Germany. This included an introductory lecture, plus five additional lectures covering my very recent and current research (at the time). I also led two discussions on a couple of my earlier publications (November 1988)
- "Genes Made Molecular and Molecules Made Biological", University of Oldenburg, Oldenburg, Germany (November 1998)

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- "Causal Regularities in the Biological World of Contingent Distributions", *Quadrennial Fellows Conference* (Pittsburgh Center for Philosophy of Science), Castiglionacello, Italy (May 1996)
- "Reductionism in Biology", presented to the Department of Mechanical Engineering, University of Minnesota, (February 1996)
- "Are There Laws of Biology?", presented to the Department of Ecology, Evolution, and Behavior", University of Minnesota (April 1994)
- "Distributions in Biology", Department of Ecology, Evolution, and Behavior, University of Minnesota (October 1993)
- "Darden's Strategy for Dealing with Incomplete Historical Evidence about the Actual Pathways to Discoveries", *Conference of the International Society for the History, Philosophy, and Social Studies of Biology*, Brandeis University (July 1993)
- "Classical and Molecular Concepts of the Gene", Rice University (March 1992)
- "The Procedural Link of Scientific Reduction", Northwestern University (February 1992)
- "Laws, Reductionism, and Biological Science", University of Pittsburgh (April 1990)
- "The Reduction of Classical Mendelian Genetics", University of Pittsburgh, Indiana University (February 1990)
- "Why the Anti-reductionist Consensus Won't Survive: The Case of Classical Mendelian Genetics", Twelfth Biennial Meeting of the Philosophy of Science Association (October 1990)
- "The Universal Laws of Biology" *Meeting of the Eastern Division of the APA*, abstract in *Proceedings and Addresses of the American Philosophical Association*, 63: 7 (December 1989)
- "Confessions of a Creationist", Seventh Annual Conference on Philosophy of Science sponsored by the Center for Philosophy of Science, University of Pittsburgh. Please note: this paper concerns meta-issues in epistemology; its subject matter is not biological or theological creationism (December 1988)
- "Taking Analogical Inference Seriously: Darwin's Argument from Artificial Selection", *Tenth Biennial Meeting of the Philosophy of Science Association* (October 1986)
- "Environments, Pragmatics, and Genic Selectionism", *Meeting of the Eastern Division of the APA*, abstract in *Proceedings and Addresses of the American Philosophical Association*, 59: 351 (December 1985)

"Irvine's Account of Analogical Argument", *Meeting of the Ohio State University Philosophical Association* (March 1985)

Administrative experience

Director of the Minnesota Center for Philosophy of Science, University of Minnesota, since September 1996

Director of Graduate Studies, Graduate Minor in Studies of Science and Technology, since September 1998

Co-leader of Conceptual Foundations of Evolutionary Biology Graduate Group, University of Minnesota, since July 2008

Director of Graduate Studies (including chair of admissions and aid committee), Department of Philosophy, University of Minnesota, September 1995–August 1998

Convener and Faculty Coordinator of Rice University's Ford Honors Undergraduate Research Program (responsible for implementing and directing of university wide honors program, 1989–1991)

Senior Coordinator of a Mellon Summer Workshop for College Teachers (Rice University, Summer of 1989) "Between Biology and Philosophy: On the Conceptual Foundations and Philosophical Implications of Biology"

Teaching & University-based Service: information available upon request

Professional Service

President: Philosophy of Science Association, 2015 – present

Vice-President: Philosophy of Science Association, 2012 – 2014

Program Committee: Philosophy of Science Association, 2012 – 2013

Nominating Committee: Philosophy of Science Association, 2010 – 2012

Editorial board: *Philosophy of Science* (1994 – 1999, 2009 – present)

Board, *Phil Sci Archive* (2013 – present)

Editorial Board, Vienna Circle Institute Yearbook (2011 – present); Advisory Board

C. KENNETH WATERS

International Advisory Committee: Rotman Institute of Philosophy, University of Western Ontario (2011–present)

Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) / Review panel for Programs of Excellence in Plant Science, Evolutionary Biology and Microbiology“ (LS 11 Panel) regarding proposals for clusters of excellence (EXC) and graduate schools (GSC) (2011)

Advisory Board, *Phil Sci Archive* (2011 –2013)

Referee for University of Chicago Press, Cambridge University Press, Harvard University Press, and Lawrence Erlbaum Associates Press, Princeton University Press.

Referee for *Biology and Philosophy*, *British Journal for the Philosophy of Science*, *Studies in History and Philosophy of Science* (Section C), *History and Philosophy of the Life Sciences*, *Philosophers' Imprint*, *Journal of Philosophical Logic*, *Linguistics and Philosophy*, *Philosophical Psychology*, *Philosophy of Science*, *Philosophy Research Archives*, *Studies in History and Philosophy of Science*, *Synthese*, National Science Foundation, Israel Science Foundation, *Science & Education*, and the *Vienna Circle Institute Year Book*

Member of National Science Foundation Panel for Professional Development and Postdoctoral Fellowships in History and Philosophy of Science (Spring 1991)

Consultant to Dean of Natural Sciences (concerning undergraduate science curriculum for non-science majors), Rice University (Spring 1992)

Professional society memberships

American Philosophical Association

Philosophy of Science Association

International Society for the History, Philosophy, and Social Studies of Biology

Fellowships, Grants, and Honors

Templeton Foundation Grant, “From Biological Practice to Scientific Metaphysics”, 2015 – 2018, with Alan Love, Marcel Weber, and William Wimsatt (\$2,102,390 USD).

Elected Fellow of the American Association of the Advancement of Science (2015)

Elected President of the Philosophy of Science Association (elected 2013, to take office January 1, 2015)

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University of Minnesota Grant in Aid (with Michael Travisano, EEB) to conduct a workshop at the Minnesota Center for Philosophy of Science, 2012

National Science Foundation, Grant Conference and Workshop Support, held at the University of Minnesota Spring 2011 and Spring 2012, “Philosophical perspectives on causal reasoning in biology”. (#0959134, \$30,000)

University of Minnesota, Summer Fellowship and McKnight Faculty Summer Fellowship (for University of Minnesota faculty in humanities), 2007

University of Minnesota, Consortium Scholar, Consortium on Law and Values in Health, Environment & the Life Sciences, University of Minnesota, 2003–2004, 2004–2005, 2005–2006, 2006–2007.

University of Minnesota, Single semester leave (offered and accepted for Fall 2005)

National Science Foundation Scholar’s Award, for the 2003–2004 academic year and two subsequent summers) “Why Genes are the Center of Molecular Biologists' Attention” (#0323591, \$120,596)

University of Minnesota, Single semester leave (offered for Fall 2003, declined)

University of Minnesota Sabbatical Supplement (offered for 2002–2003, declined; offered for 2003–2004, declined)

National Science Foundation Grant, to conduct a workshop at the Minnesota Center for Philosophy of Science, 2002 “Scientific Pluralism, a workshop to be held at the University of Minnesota, October 10 -13, 2002” (#0125682, \$7,884)

University of Minnesota, Summer Fellowship and McKnight Faculty Summer Fellowship (for University of Minnesota faculty in humanities), 2000

University of Minnesota, Summer Fellowship, Summer 2000

University of Minnesota, Single quarter leave, Fall 1998

University of Minnesota Grant-in-Aid, 1996–1997

National Science Foundation Summer Scholar's Award, 1996 (grant # 9412338)

National Science Foundation Summer Scholar's Award, 1995 (grant # 9412338)

National Science Foundation Scholar's Award, Academic Year 1994–1995 “The Molecularization of Genetics” (grant # 9412338, \$65,611)

National Science Foundation Summer Scholar's Award, 1994

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University of Minnesota, Summer Fellowship and McKnight Faculty Summer Fellowship (for University of Minnesota faculty in humanities), 2002

University of Minnesota Grant-in-Aid, 1991–1992

National Science Foundation Scholar's Award, Academic Year 1989–1990 “Reductionism and the Reduction of Mendelian Genetics” (#8912221, \$50,000)

National Science Foundation Summer Scholar's Award, 1989 and 1990

Visiting Fellowship, Center for Philosophy of Science, University of Pittsburgh, Spring 1990

John Carroll University Summer Faculty Fellowship, 1985

Phi Beta Kappa