

James G. Lennox

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Degrees

- 1971 BA (Honors), York University (Toronto)
- 1973 MA, University of Toronto, Philosophy
- 1978 Ph. D., University of Toronto, Philosophy

Academic Positions University of Pittsburgh

- 1993- Professor of History and Philosophy of Science
- 1983-1993 Associate Professor of History and Philosophy of Science
- 1978-1983 Assistant Professor of History and Philosophy of Science
- 1977-1978 Instructor, History and Philosophy of Science

Administrative Appointments

- 2008-2009 Director, Classics, Philosophy and Ancient Science Program
- 1997-2005 Director, Center for Philosophy of Science
- Spring 2011 Interim Director, Center for Philosophy of Science
- 1993-1996 Department Chair, History and Philosophy of Science
- Spring 2010 Acting Department Chair, History and Philosophy of Science

Secondary Appointments

- 1990-1997 Faculty Associate, Center for Medical Ethics
- 1987-Present Department of Classics
- 1980-Present Resident Fellow, Center for Philosophy of Science
- 1978-Present Department of Philosophy

Areas of Current Research

Classical Greek Philosophy and Science, Darwin and Darwinism, History and Philosophy of Biology, Ayn Rand and Objectivism

Other Areas of Interest

Epistemology, History and Philosophy of Medicine, Conceptual Change

Books in Preparation

Preparation of translation and commentary of Aristotle's *Meteorology* IV, again at the request of the editors of the Clarendon Aristotle Series. Joint project with Professor Mary Louise Gill (Classics, University of Pittsburgh).

Preparation of a book-length manuscript on Aristotle's normative account of scientific inquiry, tentatively titled 'Aristotle on Norms of Inquiry'.

Books

- 2010 James G. Lennox and Robert Bolton, eds. [*Being, Nature, and Life in Aristotle*](#), Cambridge: Cambridge University Press.
- 2010 Allan Gotthelf, ed; James G. Lennox, assoc. eds., [*Metaethics, Egoism, and Virtue: Studies in Ayn Rand's Normative Theory*](#), Pittsburgh: University of Pittsburgh Press.
- 2001 [*Aristotle's Philosophy of Biology: Studies in the Origins of Life Science*](#) (Studies in Biology and Philosophy Series), Cambridge: Cambridge University Press.
- 2001 [*Aristotle: On the Parts of Animals, translation with introduction and commentary*](#) (Clarendon Aristotle Series), Oxford University Press
- 1995 with Gereon Wolters, editors, [*Concepts, Theories, and Rationality in the Biological Sciences*](#), Konstanz University Press and Pittsburgh University Press, Konstanz
- 1994 with Mary Louise Gill, editors, [*Self-Motion from Aristotle to Newton*](#), Princeton University Press, Princeton
- 1992 Author of chapter 7, *Philosophy of Biology* in: Merrilee H. Salmon, et al., [*An Introduction to the Philosophy of Science: A Text by Members of the Department of History and Philosophy of Science of the University of Pittsburgh*](#), Prentice Hall, Englewood Cliffs, NJ, 1992; reprinted Hackett, Indianapolis, 1999

1987 with Allan Gotthelf, editors, [*Philosophical Issues in Aristotle's Biology*](#), Cambridge University Press, Cambridge

Published Articles

2012 'Aristotele', Capitolo 11 in Lorenzo Perilli e Daniela P. Taormina (eds.) *La Filosofia Antica: Itinerario Storica e Testuale*. Milano: UTET Università, 272-308.

2011 'Aristotle on Norms of Inquiry', *HOPOS* Vol. 1, No. 1 (Spring 2011), 23-46.

2010 'Bios, Praxis and the Unity of Life in Aristotle's Biology', in Sabine Föllinger (ed.): *Was ist 'Leben'? Aristoteles' Anschauungen zur Entstehungsweise und Funktion von Leben*. Akten der Tagung vom 23.-26. August 2006 in Bamberg, Stuttgart: Franz Steiner Verlag 2009, 239-259.

2010 “ (Greek re-publication In Η Διδασκαλία της Θεωρίας της Εξέλιξης· Θεωρητικά και Παιδαγωγικά Ζητήματα (*Teaching Evolutionary Theory: Theoretical and Pedagogical Investigations*), Basilica Zogkza, Kostas Kampourakis, Demitrias Notaras, eds., Athens: Geitona Publishers, 2010, 132-157.)

2010 'Aristotle's Natural Science: the Many and the One' in, James Lesher, ed. *From Inquiry to Demonstrative Knowledge: New Essays on Aristotle's Posterior Analytics*, *Apeiron* 43, nos. 2-3 (June-September 2010), 1-23.

2010 'Bios and Explanatory Unity in Aristotle's Biology' in David Charles, ed. *Definition in Greek Philosophy*, Oxford: Oxford University Press, 329-355.

2010 'La fonction biologique: Phylogénie d'un Concept', in Jean Gayon et Armand de Ricqlès, eds., *Les fonctions : des Organismes aux Artefacts*, Paris: Presses Universitaires de France, 2010, 17-42.

2009 '[Aristotle on Mind and the Science of Nature](#)', in Marietta Rossetto, Michael Tsianikas, George Couvalis and Maria Palaktoglou (eds.), *Greek Research in Australia: Proceedings of the Biennial International Conference of Greek Studies, June 2009*, Flinders University Department of Languages 2009, 1-18.

- 2009 'De caelo II 2 and its Debt to *De Incessu Animalium*', in Alan C. Bowen and Christian Wildberg, eds., *New Perspectives on Aristotle's De Caelo* (Philosophia Antiqua Vol. 117), Leiden and Boston: Brill, 2009, 147-214.
- 2009 'Form, Essence, and Explanation in Aristotle's Biology', chapter 22 in Georgios Anagnostopoulos, ed., *A Companion to Aristotle*, London: Blackwell Publishing, 2009, pp. 348-67.
- 2009 'Aristotle', in Michael Ruse & Joseph Travis, eds. *Evolution: The First Four Billion Years*, Cambridge MA: The Belknap Press of Harvard University Press, pp. 422-427.
- 2009 'The Evolution of Darwinian Thought Experiments' and 'Thought Experiments in Evolutionary Biology Today', chapters 2 and 4 in W. J. Gonzalez (ed.), *Evolutionism: Present Approaches*, La Coruña: Netbiblio, 2009, pp. 63-76, 109-120.
- 2008 'From Darwin to Neo-Darwinism', chapter 5, in Sahotra Sarkar and Anya Plutynksi, eds. *A Companion to Philosophy of Biology*, Malden, MA: Blackwell Publishing Ltd.
- 2008 'As if we were investigating snubness': Aristotle on the prospects for a single science of nature', *Oxford Studies in Ancient Philosophy*, 2008 (Vol. XXXV), pp. 149-186.
- 2007 'William Harvey's Experiments and Conceptual Innovation', *Medicina & Storia*, 12/2006, pp. 5-27
- 2006 '[Aristotle's Biology](#)', for *Stanford Encyclopedia of Philosophy*
- 2006 'The Philosophy of Biology', entry for Donald Borchert, editor-in-chief, *Encyclopedia of Philosophy*, 2nd edition
- 2006 '[The Comparative Study of Animal Development: William Harvey's Aristotelianism](#)', chapter 1, in Justin Smith, ed. *The Problem of Animal Generation in Modern Philosophy*, Cambridge: Cambridge University Press, pp. 21-46
- 2006 '[Aristotle's Biology and Aristotle's Philosophy](#)', chapter 16, in Mary Louise Gill and Pierre Pellegrin, eds., *A Companion to Ancient Philosophy* (Blackwell Companions to Philosophy Series), London: Blackwell, pp. 292-315

- 2005 'Aristotle', in *Encyclopedia of Social Measurement* (K. Kempf-Leonard, ed.), San Diego: Elsevier Science Press, pp. 83-90 (reprinted with permission from Elsevier)
- 2005 '[Darwin's Methodological Evolution](#)', *Journal of the History of Biology*, 38/1 (March), pp. 85-99
- 2005 '[The Place of Zoology in Aristotle's Natural Philosophy](#)', in R. W. Sharples, ed., *Philosophy and the Sciences in Antiquity*, London: Ashgate, pp. 58-70 (reprinted with permission)
- 2004 '[Darwinism](#)', Edward N. Zalta, ed. *The Stanford Encyclopedia of Philosophy*, (Fall) [updated 2009]
- 2004 '[Getting a Science Going: Aristotle on Entry Level Kinds](#)', in G. Wolters, ed., *Homo Sapiens und Homo Faber* (Festschrift Mittelstrass), Berlin: Walter De Gruyter, pp. 87-100
- 2002 'Che bene è un adattamento?', *Iride*, Vol. XV, pp. 521-535
- 2001 'Aristotle on the Unity and Disunity of Science', *International Studies in the History and Philosophy of Science*, 15/2, pp. 133-144
[[IngentaConnect](#)]
- 2001 'History and Philosophy of Science: A Phylogenetic Approach', *História, Ciências, Saúde*, Vol. VIII, No. 3 (October-December 2001), 655-668.
- 1999 '[Aristotle on the Biological Roots of Human Virtue](#)', chapter 1, in Jane Maienschein and Michael Ruse, eds., *Biology and the Foundations of Ethics*, Cambridge (reprinted with permission)
- 1999 '[The Place of Mankind in Aristotle's Zoology](#)', *Philosophical Topics*, 27/1 (Spring), pp. 1-16
- 1997 'Greek Science', in David Zeyl, ed. *The Encyclopedia of Classical Philosophy*, Princeton, pp. 476-484
- 1997 'Nature does nothing in vain', in *Beiträge zur antiken Philosophie. Festschrift für Wolfgang Kullmann, Herausgegeben von Hans-Christian Günther und Antonios Rengakos (mit einer Einleitung von Ernst Vogt)*, Stuttgart, pp. 199-214
- 1997 'Charles Darwin', in Don Garrett, ed. *Encyclopedia of Empiricism*, Westport: Greenwood Press, pp. 78-80

- 1996 'Aristotle's Biological Development: the Balme Hypothesis', chapter 10 in W. Wians, Savage, MD, ed. *Aristotle's Philosophical Development*
- 1996 'Putting Philosophy of Science to the Test: the Case of Aristotle's Biology', in Micky Forbes, David Hill, R. M. Burian, eds. *PSA: 1994* Volume 2, East Lansing [[JSTOR](#)]
- 1996 'Material and Formal Natures in Aristotle's De Partibus Animalium', in John J. Cleary and W. Wians, *Proceedings of the Boston Area Colloquium of Ancient Philosophy*, Volume XIV, University Press of America (reprinted in Sabine Föllinger and Wolfgang Kullmann, eds. *Aristotelische Biologie. Intentionen, Methoden, Ergebnisse*, Stuttgart, 1997)
- 1995 'The Disappearance of Aristotle's Biology: A Hellenistic Mystery', in T. D. Barnes, ed. *The Sciences in Greco-Roman Society*, Edmonton, pp. 7-24
- 1995 '[Health as an Objective Value](#)', *The Journal of Medicine and Philosophy*, Vol. 20, pp. 499-511 (reprinted with permission)
- 1995 'Liberty and the Human Environment', *IOS Journal*, 5/2, pp. 1-9
- 1994 with Bradley Wilson, 'Natural Selection and the Struggle for Existence', *Studies in History and Philosophy of Science*, 25/1, pp. 65-80 [[Science Direct](#)]
- 1994 'Aristotelian Problems', *Ancient Philosophy*, XIV, pp. 53-77
- 1994 'The Environmental Creed According to Gore', chapter 4 in John Baden, ed. *Environmental Gore: A Constructive Response to Earth in the Balance*, San Francisco
- 1993 'Darwin was a Teleologist', *Biology and Philosophy*, Vol. 8 (October), pp. 408-421
- 1992 'Teleology', in Evelyn Fox Keller and Elisabeth Lloyd, eds. *Keywords in Evolutionary Biology*, Cambridge, MA, pp. 324-333
- 1991 'Between Data and Demonstration: the Analytics and the Historia Animalium', chapter 12 of Alan Bowen, ed. *Science and Philosophy in Classical Greece*, New York, pp. 261-295
- 1991 '[Darwinian Thought Experiments: A Function for Just So Stories](#)', in Tamara Horowitz, Gerald Massey, Savage, MD, ed. *Thought*

- Experiments in Science and Philosophy*, pp. 173-196 (reprinted with permission)
- 1987 [‘Divide and Explain: the Posterior Analytics in Practice’](#), in Gotthelf and Lennox, 1987, pp. 90-119
- 1987 [‘Kinds, Forms of Kinds and the More and Less in Aristotle’s Biology’](#), in Gotthelf and Lennox, 1987, pp. 339-359
- 1985 [‘Plato’s Unnatural Teleology’](#), in Dominique O’Meara, ed. *Platonic Investigations*, Washington D.C., pp. 195-218
- 1985 [‘Aristotle, Galileo and the Mixed Sciences’](#), in William Wallace, ed. *Reinterpreting Galileo*, Washington D.C., pp. 29-51
- 1985 ‘Theophrastus on the Limits of Teleology’, in *Theophrastus of Eresus: On His Life and Works*, New Brunswick, N.J., pp. 143-151
- 1985 ‘Are Aristotelian Species Eternal?’, in Allan Gotthelf, ed. *Aristotle on Nature and Living Things*, Pittsburgh, pp. 67-94
- 1984 ‘Aristotle on Chance’, *Archiv für Geschichte der Philosophie*, 66/1, pp. 52-60
- 1984 ‘Aristotle’s Philosophy of Science and Aristotle’s Biology’, in Marjorie Grene, ed. *Contributions to Philosophy of Science, PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association*, Vol. 1984, Volume Two: Symposia and Invited Papers, pp. 365-377 [[JSTOR](#)]
- 1983 ‘Aristotle’s Lantern’, *Journal of Hellenic Studies*, CIII, pp. 148-151 [[JSTOR](#)]
- 1983 ‘Robert Boyle’s Defense of Teleological Inference in Experimental Science’, *Isis*, 74, pp. 38-52 [[JSTOR](#)]
- 1982 ‘Teleology, Chance, and Aristotle’s Theory of Spontaneous Generation’, *Journal of the History of Philosophy*, 20, pp. 219-232
- 1981 ‘Enc on Harvey and Consequence Etiologies’, *Philosophy of Science*, 48, pp. 323-336 [[JSTOR](#)]
- 1980 ‘Genera, Species and ‘the more and the less’ in Aristotle’, *Journal of the History of Biology*, 13, pp. 321-346

- 1976 'The Causality of Finite Modes in Spinoza's *Ethics*', *Canadian Journal of Philosophy*, VI/3, pp. 479-500
- 1976 with John B. Ridpath, 'Ayn Rand's Novels: Art or Tracts? Two Additional Views', *American Journal of Economics and Sociology*, 35/2, pp. 213-224 [[JSTOR](#)]

Essay Reviews

- 2010 (With Catherine Day), 'Seeking Darwin's Origins': Essay Review of P. H. Armstrong, *Darwin's Luck*; Keith Thompson, *The Young Charles Darwin*; Adrian Desmond and James Moore, *Darwin's Sacred Cause*, *Victorian Studies*, Vol. 52, No. 3 (Spring 2010), pp. 449-456.
- 1997 'Concepts of Health and Disease: Comments on Chapter 5 of Engelhardt's *The Foundations of Bioethics*, 2nd Edition', *Reason Papers*, Vol. 22, No. 6, pp. 75-84.
- 1994 'Aristotle's Biology: Plain, but not Simple', a review of D. M. Balme, *Aristotle's De Partibus Animalium I and De Generatione Animalium I*, revised edition, *Studies in History and Philosophy of Science*, Vol. 25, No. 5, pp. 817-823.
- 1985 'Demarcating Ancient Science: A Discussion of G. E. R. Lloyd's *Science, Folklore and Ideology: the Life Sciences in Ancient Greece*', *Oxford Studies in Ancient Philosophy*, III, pp. 307-324.
- 1984 'Recent Philosophical Studies in Aristotle's Biology', *Ancient Philosophy*, IV, pp. 73-82

Comments and Discussions

- 1996 'Comment: Darwin's Recapitulation', in Henry Krips, J. E. McGuire and Trevor Melia, eds. *Science, Reason, and Rhetoric*, Pittsburgh
- 1995 'Darwinism: Its Descent and Modifications', in Wolters and Lennox, eds., pp. 27-34
- 1994 'Teleology by Another Name: A Reply to Ghiselin', *Biology and Philosophy*, Vol. 9, pp. 493-495
- 1991 'Commentary on Henry C. Byerly and Richard E. Michod's *Fitness and Evolutionary Explanation*' (target article), in *Biology and Philosophy*, Vol. 6, pp. 33-37

- 1990 'Notes on David Charles on HA', in D. Devereux and Pierre Pellegrin, eds. *Biologie, Logique et Métaphysique chez Aristote*, Paris, pp. 169-183
- 1989 'Commentary on Richard Sorabji's *The Greek Origins of the Idea of Chemical Combination*' in John J. Cleary and Daniel C. Shartin, eds. *Proceedings of The Boston Area Colloquium in Ancient Philosophy IV*, New York

Book Reviews

- 2010 David Sedley, *Creationism and its Critics in Antiquity*, in *Report of National Center for Science Education*, Reports of the National Center for Science Education, Vol. 30, No. 6 (Nov-Dec 2010), 24-26
- 2007 David Bostock, *Space, Time, Matter, and Form: Essays on Aristotle's Physics*, in *Mind*, Vol. 117, number 465 (January 2008), 170-174.
- 2005 Cristina Viano, ed., *Aristoteles Chemicus: Il IV libro dei Meteorologica nella traduzione antica e medievale in Aestimatio: Critical Reviews*, in *the History of Science*, 4, 138-147
- 2005 Thoman Johansen, *Plato's Natural Philosophy*, in *Classical Review*, 56/1, 57-59
- 2004 John Dupré, *Humans and Other Animals*, in *Philosophical Quarterly*, 55/218, 130-133
- 2003 Keith Parsons, *Drawing Out Leviathan: Dinosaurs and the Science Wars*, in *Metascience*, 12, 109-111
- 2002 Denis Des Chene, *Life's Form: Late Aristotelian Conception of the Soul*, in *Isis*, 93, 104-105 [[JSTOR](#)]
- 1999 Larry Arnhart, *Darwinian Natural Right: The Biological Ethics of Human Nature*, in *Quarterly Review of Biology*, 74, p. 333 [[JSTOR](#)]
- 1998 Roger French, *Ancient Natural Histories*, in *International Journal of Classical Scholarship*, IV/3, pp. 470-472
- 1998 Robert Mitchell, Nicholas S. Thompson, H. Lyn Miles, eds., *Anthropomorphism, Anecdotes, and Animals*, in *Quarterly Review of Biology*, 73, p. 194 [[JSTOR](#)]

- 1997 Daniel Dennett, *Darwin's Dangerous Idea*, in *Review of Metaphysics*, LI, pp. 652-654
- 1996 David Depew and Bruce Weber, *Darwinism Evolving*, and Michael Bradie, *The Secret Chain*, in *Quarterly Review of Biology*, 71/2, pp. 265-654 [[JSTOR](#)]
- 1995 Chris Matthew Scriabarra, *Ayn Rand: The Russian Radical*, in *IOS Journal*, 5/4 (November 1995), pp. 1-9; in *Reason*, 27/9 (February 1996), pp. 62-65
- 1994 R. J. Hankinson, *Galen: On Therapeutic Method: Books I and II*, in *Ancient Philosophy*, XIV, pp. 448-452
- 1994 Robert J. Richards, *The Meaning of Evolution: The Morphological Construction and Ideological Reconstruction of Darwin's Theory*, in *Philosophy of Science*, 61/4 (December), pp. 673-675 [[JSTOR](#)]
- 1993 Lindsay Judson, ed., *Aristotle's Physics*, *Isis*, 84/2
- 1993 R. J. Hankinson, *Method, Medicine and Metaphysics: Studies in the Philosophy of Ancient Science*, in *Pheonix*, 47/1 (Spring), pp. 92-94 [[JSTOR](#)]
- 1991 G. E. R. Lloyd, *Problems and Methods in Greek Science: Selected Papers*, in *The Times Literary Supplement*
- 1988 Deborah Modrak, *Aristotle: The Power of Perception*, in *Ethics*, 99/1, p. 206
- 1986 David Charles, *Aristotle's Philosophy of Action*, in *The Philosophical Quarterly*, 36/145, pp. 543-549 [[JSTOR](#)]
- 1985 Anthony Preus, *Aristotle and Michael of Ephesus on the Movement and Progression of Animals*, in *International Studies in Philosophy*, XVII/3, pp. 81-82
- 1984 C. J. F. Williams, *Aristotle's De Generatione et Corruptione*, in *Journal of the History of Philosophy*, 22/4, pp. 472-474
- 1984 Michael Ruse, ed. *Nature Animated: Philosophical Case Studies in Greek Medicine, Nineteenth-Century and Recent Biology, Psychiatry, and Psychoanalysis*, in *Isis*, 75, pp. 603-604 [[JSTOR](#)]
- 1983 Johannes Morsink, *Aristotle on the Generation of Animals: a Philosophical Study*, in *Isis*, 74, pp. 440-441 [[JSTOR](#)]

- 1982 M. D. Grmek, R. S. Cohen, G. Cimino, eds. *On Scientific Discovery*, in *Isis*, 73, p. 112 [[JSTOR](#)]
- 1980 Martha C. Nussbaum, *Aristotle's De Motu Animalium*, in *Philosophy of Science*, 47, pp. 156-159 [[JSTOR](#)]
- 1979 Stephen Gaukroger, *Explanatory Structures*, in *Philosophy of Science*, 46, pp. 652-654 [[JSTOR](#)]
- 1978 J. D. G. Evans, *Aristotle's Concept of Dialectic*, in *Review of Metaphysics*, XXXII, pp. 353-354

Recent Invited Lectures

- 2012 *Institute for History and Philosophy of Science and Technology Colloquium, University of Toronto*: 'Accentuate the Negative: A Puzzle about the Structure of Darwin's Origin, Solved', March 8.
- Program in Ancient and Medieval Philosophy Colloquium, University of Toronto*: 'Why we Breathe: Aristotle on the Hunt for Final Causes', March 9.
- APA Pacific Division meeting of the Ayn Rand Society*: Comment (along with Hasok Chang) on Travis Norsen, 'Concepts and the Growth of Knowledge: the Case of 'Temperature'', April 5, 2012.
- University of Rochester*: Seminar discussion of my 'An Intelligent Debate about Chance and Design: the Darwin/Gray Correspondence, 1857-68' with students of Brad Weslake and Allen Orr's History of Science and Religion seminar, April 19.
- University of Rochester Philosophy Colloquium*: 'Why we Breathe: Aristotle on the Hunt for Final Causes', April 20.
- Participant/speaker at *Oxford University Ancient Philosophy Workshop* 'Aristotle's Hylomorphism'. My paper: 'On Respiration: how to investigate hylomorphic unities' June 2-3.
- University of Pisa Philosophy Colloquium*: 'Why Must We Breathe?: Aristotle on the Hunt for Final Causes', June 5.

- 2011 ‘Aristotle on Norms of Inquiry’, Marquette University, Mid-West Seminar In Ancient and Medieval Philosophy Lecture, April 7; presented at *Aristotle’s Methods of Inquiry Workshop*, UNC Chapel Hill, March 25-27, 2011. (Also Co-organizer of workshop with Greg Salmieri, former student now at UNC.)
- University of Chicago: Debating Darwin Series: ‘Accentuate the Negative: A Puzzle about the Structure of Darwin’s Origin, Solved’*, October 13, 2011.
- University of Notre Dame Colloquium in History and Philosophy of Science: ‘Why We Breathe: Aristotle on the Hunt for Final Causes’*, October 28, 2011.
- University of Vienna Philosophy of Science Colloquium: ‘The Role of History in Philosophy of Science’*, November 17, 2011.
- The Humboldt University, Berlin: TOPOI Workshop: Workshop based around my paper ‘Aristotle on Respiration: The Hunt for Final Causes’ (Greek reading session in the morning, paper presentation in the afternoon) November 19, 2011.*
- 2010 ‘Aristotle on Norms of Inquiry’, as part of meetings of the *International Society for History of Philosophy of Science* in Budapest, Hungary, June 25; *Mazaryk University, Brno, Czech Republic*, June 22.
- 2010 ‘William Harvey: Enigmatic Aristotelian of the Scientific Revolution’, *Charles University, Prague, Czech Republic*, June 21.
- 2010 ‘Aristotle’s Anatomical Dissections’, *Generation of Animals Workshop, University of Western Ontario*, May 25-2.
- 2010 ‘Aristotle’s Natural Science: the Many and the One’, **Rosamond Kent Sprague Lecture in Ancient Philosophy**, *University of South Carolina*, April 16.
- 2010 **Biggs Residency Lectures.** 1. ‘Aristotle: A Philosophy for the Science of Life’; 2. ‘William Harvey: Enigmatic Aristotelian of the Scientific Revolution’; 3. ‘Aristotle and the Norms of Inquiry’, *Washington University of St. Louis*, April 5-8.

- 2009 'Aristotle's Essentialism and Evolution: Dispelling a Myth', **Darwin 200th anniversary lecture, Berlin-Brandenburg Academy of Natural Science**, Berlin, Germany, November 11, 2009.
- 2009 'An Intelligent Discussion about Chance and Design: Using the Darwin-Gray Correspondence to Teach the Evolution-Creation Controversy'. **Keynote Lecture**, 'Athens Conference on Teaching Evolution: Theoretical and Pedagogical Issues', Athens Greece. November 7, 2009.
- 2009 'Chance, Design and Contrivance: Charles Darwin, Asa Gray and the Metaphysics of Orchids' *Philadelphia Academy of Natural Science Darwin Anniversary Symposium*, October 22.
- 2009 'William Harvey's Teleology', *Indiana University, Department of History and Philosophy of Science*, **Westfall Lecture**, September 25.
- 2009 'Aristotle on mind and the science of nature', *Minnesota Center for Philosophy of Science Colloquium Lecture*, September 11.
- 2009 'The Origins of Darwin's *Origin*: From the Beagle to *On the Origin of Species*', Duquesne University, January 16.
 'The Origins of Darwin's *Origin*: From the Beagle to *On the Origin of Species*', Carnegie Museum of Natural History, January 17.
The inaugural lectures in the Duquesne/CMNH Darwin Celebration 2009 Series .
- 2009 'Aristotle on Mind and the Science of Nature', University of California, San Diego Philosophy Department Colloquium, February 27.
- 2009 'Aristotle's Science of Nature: the many and the one', Duke-UNC Conference on Aristotle's *Posterior Analytics*, April 24-5.
- 2009 'Aristotle on Mind and the Science of Nature', University of Chicago, May 6.
- 2009 'Aristotle: A Philosophy for the Science of Life', public lecture at the University of Adelaide, Australia, to open the Annual International Conference on Greek Research. July 1.
- 2009 'Aristotle on Mind and the Science of Nature', keynote address at the International Conference on Greek Research, July 3.

- 2009 ‘William Harvey’s Conceptual Teleology’, **The 2009 Dyason Lecture**, Australian Association for History, Philosophy and Social Study of Science Annual Meetings, July 11-12.
- 2008 ‘Functions and History’, Quadrennial Fellows Conference of the Center for Philosophy of Science, University of Pittsburgh (July 20-24); invited lecture, conference on “La notion de fonction: des sciences de la vie à la technologie (The Notion of Function: from the Life Sciences to Technology)”, Collège de France (May 21-23)
- 2008 ‘Teleology and Chance in the Darwin-Gray correspondence: 1860-64’, Symposium presentation, HOPOS Conference, Vancouver (June 18-21)
- 2008 ‘Aristotelian Souls and Aristotelian Natures’, a symposium presentation at the HOPOS Conference, Vancouver (June 18-21, 2008); invited lecture, conference on “The Immateriality of the Soul”, University of Western Ontario (October 10-12, 2007)
- 2008 ‘Aristotle on the Prospects for a Science of Life’, invited lecture, Conference on “Discovering Life”, Princeton University (February 8-9)
- 2007 ‘Darwin’s Rejection of Cartesian Dualism’, invited lecture for the Masseyfest, a retirement celebration for Jerry Massey, University of Pittsburgh (April 22)
- 2007 ‘Aristotle on Bios, Praxis, and the Unity of Life’, Lunchtime Talk, Center for Philosophy of Science, University of Pittsburgh (April 17, 2007); Boston University (January 22, 2007); Kosfest: A retirement celebration of Professor Aryeh Kosman’s teaching and research, Haverford College (November 5, 2006)
- 2007 ‘An Intelligent Discussion about Chance and Design: Asa Gray confronts Darwinism’, University of Utah, Salt Lake City (March 30)
- 2007 ‘“As if we were investigating snubness”: Aristotle’s argument for a single science of nature’, Concordia University, Montreal (March 16, 2007); University of Pisa (May 23, 2006); Institute for Advanced Study, University of Bologna (May 16, 2006); Ohio University (March 24, 2006)

- 2006 'Ayn Rand on Concepts, Context and Scientific Progress', A conference on "Concepts and Objectivity: Knowledge, Science, and Values", University of Pittsburgh (September 22-24)
- 2006 'The Function concept: some history', Conference on Teleology: Ancient and Modern, Toronto, Canada (August 26-28, 2006); Workshop on Functions in Biology and Language, University of Catania, Sicily (May 21, 2005)
- 2006 'What is bios?', Conference on Aristotle and Modern Biology, Bamberg, Germany (August 22-26)
- 2005 'Aristotle's biology and its relevance to his metaphysics, ethics and politics': 5 seminars given at the Universidad Nacional de Colombia, Bogotá, Colombia (September 12-16)
- 2005 'Getting a Science Started: Aristotle on Entry Level Kinds', University of Bologna, Italy (May 17, 2005); Eötvös University, Budapest, Hungary (June 5, 2004); University of West Virginia (February 12, 2004)
- 2005 'How *not* to study natural form: Aristotle on the prospects for a mathematical physics', University of Texas, Austin (April 29)
- 2005 'The Evolution of Darwinian Thought Experiments', University of Minnesota, Minneapolis (April 16)
- 2005 'The Evolution of Darwinian Thought Experiments'; 'Thought Experiments in Evolutionary Biology Today', Evolucionismo: Enfoques Actuales, Universidad a Coruña, El Ferrol, Spain (March 10-11)
- 2005 'Conceptual Teleology in William Harvey's *De Conceptione*', Center for Philosophy of Science, University of Pittsburgh (February 22)
- 2004 'Experiment and Conceptual Innovation in William Harvey's Science', Philosophy of Science Association, Austin, Texas (November 19)
- 2004 'The Unity and Purpose of *On the Parts of Animals I*', Being, Nature and Life: A Conference Honoring Allan Gotthelf, University of Pittsburgh (October 3)

- 2004 'William Harvey and the Teleology of Animal Generation',
Teleology Conference, University of Edinburgh, Scotland (August 17)
- 2004 Invited guest: European Ancient Philosophy Reading Group: On
Parts of Animals I.1: this year the focus of discussion was my
translation and commentary of Aristotle's *On the Parts of Animals*
(April 1-4)
- 2004 'The Place of Biology in Aristotle's Natural Philosophy',
University of Georgia (January 29, 2004); Keeling Conference on
Ancient Philosophy, University of London (November 4-7, 2003);
University of Catania, Sicily (May, 2002); University of Cincinnati
(February, 2002); University of Notre Dame (February, 2002);
Princeton Ancient Philosophy Colloquium (December, 2001)
- 2003 'Mathematical Science and Aristotle's *Physics*', University of Paris,
France (June 18)
- 2003 'Aristotle's uses of hypotheses in *De Caelo*', Delphi, Greece: Athens-
Pittsburgh Conference (June 5)
- 2003 '*Physics* II.2: What is the Problem?', Werkmeister Conference:
Aristotle's Philosophy, Florida State University, Tallahassee (March 22)
- 2002 'What is the Good of an Adaptation?', University of Florence, (May,
2002); University of Houston (November, 2001)
- 2001 'Aristotle on the Unity and Disunity of Science', University of
Toronto (February 2); University of Rochester, Rochester, NY (March 17, 2000); University of Florence, Florence, Italy (November 5, 1999);
St. Louis University, St. Louis, MO, The Leonard J. and Elizabeth
Eslick Lectures (October 13, 1999); National Technical University of
Athens, Greece (May 18, 1999)
- 2000 'History and Philosophy of Science: A Phylogenetic Approach',
Instituto Oswaldo Cruz, Rio de Janeiro (July 1, 2000); University of
Vienna, Vienna, Austria (May 23, 1999)
- 2000 'Aristotle and the Origins of Life Science', Bayer Lecture, Carnegie
Science Center (March 26)

Dissertation Direction

- Current Benny Goldberg: Metaphysics and Animal Generation in the 17-18th
century (with Peter Machamer)

Peter Distelzweig: *Mechanizing the Moving Animal
Teleology, Mechanism, and Animal Progression in the 17th Century*
(with Peter Machamer)

Keith Bemmer: *A Philosophical Examination of Aristotle's Historia
Animalium* (with Allan Gotthelf)

Yoichi Ishida: *Models and their Functions in Biological Inquiry* (with
Sandra Mitchell)

- 2009 Peter Gildenhuys: *What Selection Theory Should Be*
- 2008 Greg Salmieri: *Aristotle and the Problem of Concepts*
- 2005 Alan Love: *Explaining Evolutionary Innovation and Novelty: A
Historical and Philosophical Study of Biological Concepts*
- 2002 Steve Quevedo (Philosophy): *Causal Slack and the Necessity of
Natures: Aristotle on Sublunary Causation*
- 1998 Mark Holowchak: *The Problem of Differentiation and the Science of
Dreams in Graeco-Roman Antiquity*
- 1997 Rachel Ankeny: *The Conqueror Worm: An Historical and
Philosophical Examination of the Use of the Nematode Caenorhabditis
elegans as a Model Organism*
- 1996 Keith Parsons: *Wrongheaded Science? Rationality, Constructivism,
and Dinosaurs*
- 1996 David Rudge: *A Philosophical Analysis of the role of Selection
Experiments in Evolutionary Biology*

External Dissertation Examiner

- Current Benjamin Breuer (Pittsburgh, Department of Music): *Joseph Adler's
Evolution Theory of Music*
Timothy Greenfield (Pittsburgh, Philosophy): *The Doctrine of the
Mean in Aristotle's Ethics*
- 2009 Aaron Smith (Johns Hopkins, Philosophy): *Aristotle's Theory of
Abstraction*
- 2008 Catherine Day (Pittsburgh, Department of English): *Darwinian Motifs
in the 19th Century British Novel*

- 2008 Emily Katz (Duquesne): *Aristotle's Critique of Plato's Mathematical Theory*
- 2006 John McCaskey (Stanford): *Changing Conceptions of Induction from Aristotle to Bacon*
- 2005 Rebekah Johnston (Toronto): *Potentiality in Aristotle's Metaphysics IX*
- 2004 Stasinios Stavrianeas (Edinburgh): *Nature and Essence in Aristotle's Logical and Biological Works*
- 2004 Chris Mirus (Notre Dame): *Aristotle's Teleology and Modern Mechanics*
- 2004 Monte Johnson (Toronto): *The Goal and Limits of Aristotle's Teleology*

Professional Honors

Research Grants

- 2012 Hewlett International Travel Grant
- 1994 Hewlett International Travel Grant
- 1989-92 NEH Research Grant no. P3290: Aristotle's Parts of Animals: Translation and Commentary: 1989-91
- 1983, 1984 NSF Consecutive Summer Research Grants No. SESB308583
- 1981 Faculty Research Grant: University of Pittsburgh
- 1979 Faculty Research Grant: University of Pittsburgh

Fellowships & Lectureships

- 2010 Biggs Resident Scholar, Washington University, St. Louis
- 2009 Dyason Lecturer, University of Brisbane, Brisbane, Australia
- 2006 (May) Senior Fellow, Istituto di Studi Avanzati, University of Bologna
- 2005 (September) Visiting Lecturer in Philosophy, Universidad Nacional de Colombia

- 1994 Visiting Lecturer in Philosophy, Oxford University; Visiting Fellow, St. Cross College, Oxford University
- 1988 Lifetime Fellow, Clare Hall, Cambridge University
- 1987 Visiting Fellowship: Clare Hall, Cambridge University
- 1983-84 Junior Fellowship, Center for Hellenic Studies, Washington, D. C.
- 1982 Fellowship for NEW Summer Institute in the Philosophy of Biology, Cornell University (co-directed by Richard Burian and Marjorie Grene)

Other Awards

- 1990 Elected Honorary Member: Golden Key National Honor Society

Conference Organization

- 2012 March 23-24, 2012: *Pittsburgh/North Carolina Workshop: Discovery and Justification in Aristotle* (organized with Greg Salmieri (UNC Chapel Hill) and Allan Gotthelf (Anthem Fellow, University of Pittsburgh))
- May 6-8: *Pittsburgh Workshop on the Aristotelian Problemata* (organized with Allan Gotthelf (Anthem Fellow, University of Pittsburgh) and Robert Mayhew (Seton Hall University, recent translator of *Aristotle, Problems* (Loeb Classical Library, Harvard University Press))
- 2010 Program Committee Chair, 2010 Meetings of the International Society for History of Philosophy of Science, Budapest, Hungary, June 24-27.
- 1997-2005 Director of the Center for Philosophy of Science: responsible for organizing or co-organizing 3-4 conferences a year, our Annual Lecture Series, and our twice-weekly lunchtime colloquia
- 1993 Pittsburgh/Konstanz Conference on the Philosophy of Biology: co-chair (with Gereon Wolters of Konstanz) of the program committee
- 1991 University Honors College Lecture Series: 'Three Lectures on the History, Philosophy and Current Status of Neo-Darwinism'

- 1990 'Self-motion from Aristotle to Newton' (with Mary Louise Gill and Steven Strange)
- 1986 'Science and Philosophy in Classical Greece' (with Alan Bowen)
- 1983 'Functional Explanation in Biology and Anthropology' (With Merrilee Salmon)

Program Participation and Organization

1989-Present Directed the re-organization of the Classics and Philosophy Program into the Classics, Philosophy and Ancient Science Joint Ph.D. Program, approved by the three related departments and the Dean of Graduate Studies in 1989. This re-organization successfully integrated the Department of History and Philosophy of Science into the Classics and Philosophy Program, which it replaced. The expanded joint program adds a strong concentration in Ancient Science, with specialists in Ancient Mathematics, Harmonics, Astronomy, Physics, Biology and Medicine, to the traditional strengths in Classics and Philosophy.

1990, 1993 Environmental Ethics faculty member, University Honors College 'Yellowstone Field Program' (July/August)

University Service

- 1989-94 FAS Tenure Council (Alternate)
- 1990-96 FAS, Faculty Council
- 1993-96 Humanities Council
- 1997-2005 Dean's Council; Working Group on Library and Information Technology
- 1997-2005 Director, Center for Philosophy of Science
- 2006-2008 FAS Tenure Council (Alternate); 2006-2007 Tenure Selection Committee
- 2009 (Spring) Interim Director, Center for Philosophy of Science
- 2008-2010 FAS Academic Integrity Committee
- 2010-2012 FAS Tenure Council

Departmental Service

1978-1993, 1999-2000	Undergraduate Advisor
1983-present	Co-Director, Certificate Program in the Foundations of Medicine
1991-1992	Mellon Fellowship Committee
1989-1992	Departmental Colloquium Committee
1993-1996	Department Chair
2006-2010	Department Placement Officer
2007-2008	Department Admissions Officer (with John Earman)
2010 (Spring)	Interim Department Chair
2011 (Fall)	Interim Director of Graduate Studies
2011-12	Department Admissions Officer (with Ken Schaffner)

Professional Memberships

American Philosophical Association
History of Science Society
Philosophy of Science Association
Society for Ancient Greek Philosophy
International Society for the History, Philosophy and Social Study of Biology
International Society for History of Philosophy of Science
Ayn Rand Society, affiliated with the American Philosophical Association

Society and Journal Committees and Boards

2012-2014	Steering Committee, International Society for History of Philosophy of Science (HOPOS)
2012	Invited Board Member of the Interdisciplinary Centre for Aristotle Studies, University of Thessaloniki, Greece
1989-present	History of Philosophy Quarterly

1991-present	Philosophy of Science
2001-present	International Studies in the Philosophy of Science
2003-present	Rhizai: Journal for Ancient Philosophy and Science
2010-present	HOPOS: Journal of the International Society for History of Philosophy of Science

Journals, Referee

American Philosophical Quarterly

Ancient Philosophy

Biology and Philosophy

Journal of the History of Biology

Journal for the History of Medicine and the Allied Science

Isis

Phoenix

Phronesis

Perspectives on Science

Perspectives in Biology and Medicine

Quarterly Review of Biology

Systematic Zoology

Publishers, Referee

Oxford University Press

Cambridge University Press

Princeton University Press

Edinburgh University Press

University of Pittsburgh Press

Bibliopolis (Italy)

Foundations, Referee

American Council of Learned Societies

Guggenheim Foundation

McArthur Foundation

National Science Foundation (Advisory Committee)

National Endowment for the Humanities (Advisory Committee)