

Curriculum Vitae

Ingo Brigandt

Department of Philosophy
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Citizenship: Canadian and German citizen

AREAS OF SPECIALIZATION

Philosophy of Biology, Feminist Philosophy of Science, Philosophy of Mind

AREAS OF COMPETENCE

Philosophy of Science, Socially Relevant Philosophy of Science, Bioethics, Philosophy of Language, Epistemology, History of Biology, Science Education

ACADEMIC POSITIONS

- | | |
|-------------------|--|
| 07/2017 – | Professor of Philosophy, University of Alberta |
| 07/2015 – 06/2021 | Associate Chair (Graduate Studies), Department of Philosophy, University of Alberta
(on leave from July to December 2019) |
| 04/2014 – 03/2024 | Canada Research Chair in Philosophy of Biology, University of Alberta |
| 08/2019 – 12/2019 | Visiting Fellow, Centre for Advanced Study at the Norwegian Academy of
Science and Letters, Oslo |
| 2012 – 2017 | Associate Professor of Philosophy (with tenure), University of Alberta |
| 03/2015 – 05/2015 | Visiting Scholar, Sydney Centre for the Foundations of Science, University of Sydney |
| 09/2014 – 12/2014 | Visiting Fellow, Center for Philosophy of Science, University of Pittsburgh |
| 2008 – 2012 | Assistant Professor of Philosophy, University of Alberta (hired in 2006,
appointment deferred for 2 years to take up a postdoctoral fellowship) |
| 2006 – 2008 | Izaak Walton Killam Memorial Postdoctoral Fellow, University of Alberta |

EDUCATION

- | | |
|-------------|---|
| 2000 – 2006 | Ph.D. in History and Philosophy of Science, University of Pittsburgh
M.A. in Philosophy, University of Pittsburgh (awarded 2005) |
| 1995 – 1999 | M.Sc. equivalent (Diplom) in Mathematics, University of Konstanz (Germany) |

DISTINCTIONS AND BOARD MEMBERSHIPS

Executive Editor of the *Canadian Journal of Philosophy*, 2013–

Associate Editor of the *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution*, 2012–

Editorial Board Member (Academic Editor) of *PLOS ONE*, 2018–

Editorial Board Member (Consulting Editor) of *Studies in History and Philosophy of Biological and Biomedical Sciences*, 2017–

Editorial Board Member of *Annals of the History and Philosophy of Biology*, 2014–

Council Member (At-Large Director) of the *International Society for the History, Philosophy, and Social Studies of Biology*, 2017–2021

Membership Development Committee Co-Chair of the *International Society for the History, Philosophy, and Social Studies of Biology*, 2017–2021

Membership Development Committee Member of the *International Society for the History, Philosophy, and Social Studies of Biology*, 2013–2017

Martha Cook Piper Research Prize, University of Alberta, 2011 (\$3,000)

Faculty of Arts Research Award, University of Alberta, 2011

Advisory Board Member of the *Canadian Society for the History and Philosophy of Science*, 2011–2014

Editorial Board Member of *Bionomina: International Journal of Biological Nomenclature & Terminology*, 2010–

Dorothy J. Killam Memorial Postdoctoral Fellow Prize, University of Alberta, 2006 (\$2,500)

M.Sc. equivalent (Diplom) in Mathematics with distinction (“ausgezeichnet”, outstanding), University of Konstanz (Germany), 1999

GRANTS AND FELLOWSHIPS

Canada Research Chair in Philosophy of Biology, Canada Research Chairs Program (Social Sciences and Humanities Research Council of Canada), 2019–2024 (\$500,000)

Insight Grant, Social Sciences and Humanities Research Council of Canada, 2016–2023 (\$127,993, rank 7 out of 69 philosophy applications nationwide, grant #435-2016-0500, “Standards, aims, and values: biological explanation and beyond”)

Killam Research Fund SSHRC 4A Grant, University of Alberta, 2015–2016 (\$5,000)

Canada Research Chair in Philosophy of Biology, Canada Research Chairs Program (Social Sciences and Humanities Research Council of Canada), 2014–2019 (\$500,000)

SSHRC 4A Grant, Faculty of Arts, University of Alberta, 2012–2013 (\$3,000)

SSHRC 4A Grant, University of Alberta, 2011–2012 (\$7,500)

Standard Research Grant, Social Sciences and Humanities Research Council of Canada, 2008–2012 (\$66,652 incl. teaching release stipend, rank 3 out of 92 philosophy applications nationwide, grant #410-2008-0400, “Integrating different biological approaches: a philosophical contribution”)

Endowment for the Future Capital Recruitment Grant, University of Alberta, 2009 (\$6,200)

Killam Research Fund Conference Travel Grant, University of Alberta, 2007 (\$1,700)

Izaak Walton Killam Memorial Postdoctoral Fellowship, University of Alberta, 2006–2008 (\$88,000)

Postdoctoral Fellowship, Center for Philosophy of Biology, Duke University, 2006–2007 (declined)

Postdoctoral Fellowship, Center for Philosophy and Ethics of Science, University of Hannover, 2006–2007 (declined)

Andrew Mellon Predoctoral Fellowship, University of Pittsburgh, 2005–2006 (\$19,600)

KLI Junior Fellowship, Konrad Lorenz Institute for Evolution and Cognition Research, 2002 (\$3,280)

Andrew Mellon Predoctoral Fellowship, University of Pittsburgh, 2000–2001 (\$21,300)

VOLUMES EDITED

6. in preparation, *Engaging with Science, Values, and Society*. Special issue of the *Canadian Journal of Philosophy*. Edited by Ingo Brigandt.
5. 2019, *The Evolution of Evolution – A Tribute to Professor John Tyler Bonner*. Special issue of the *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* (Volume 332, Issue 8). Edited by Ingo Brigandt.
4. 2015, *Science, Values and the ‘Death of Evidence’ in Canada*. Symposium of the *Canadian Journal of Philosophy* (Volume 45, Issue 3, pp. 326–424). Edited by Ingo Brigandt.
3. 2013, *Integration in Biology: Philosophical Perspectives on the Dynamics of Interdisciplinarity*. Special section of *Studies in History and Philosophy of Biological and Biomedical Sciences* (Volume 44, Issue 4, Part A, pp. 461–571). Edited by Ingo Brigandt.
2. 2012, *Perspectives on Evolutionary Novelty and Evo-Devo*. Special issue of the *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* (Volume 318, Issue 6). Edited by Ingo Brigandt.
1. 2007, *The Importance of Homology for Biology and Philosophy*. Special issue of *Biology & Philosophy* (Volume 22, Number 5). Edited by Ingo Brigandt and Paul E. Griffiths.

REFEREED PAPERS

33. 2020, “Historical and philosophical perspectives on the study of developmental bias.” *Evolution & Development*. doi:10.1111/ede.12302
32. 2018, “Explanation of molecular processes without tracking mechanism operation.” *Philosophy of Science* 85: 984–997.
31. 2018, “Philosophy of molecular biology.” *eLS: Encyclopedia of Life Sciences*, John Wiley & Sons, Chichester. doi:10.1002/9780470015902.a0003448.pub2
30. 2018, “Network analyses in systems biology: new strategies for dealing with biological complexity” (fifth author, with Sara Green, Maria Şerban, Raphael Scholl, Nicholaos Jones, and William Bechtel). *Synthese* 195: 1751–1777.
29. 2017, “Philosophical dimensions of individuality” (second author, with Alan C. Love). In: *Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives*. S. Lidgard and L. K. Nyhart (eds), University of Chicago Press, Chicago, pp. 318–348.
28. 2017, “Bodily parts in the structure-function dialectic.” In: *Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives*. S. Lidgard and L. K. Nyhart (eds), University of Chicago Press, Chicago, pp. 249–274.
27. 2016, “Why the difference between explanation and argument matters to science education.” *Science & Education* 25: 251–275.
26. 2015, “Social values influence the adequacy conditions of scientific theories: beyond inductive risk.” *Canadian Journal of Philosophy* 45: 326–356.
25. 2015, “Evolutionary developmental biology and the limits of philosophical accounts of mechanistic explanation.” In: *Explanation in Biology: An Enquiry into the Diversity of Explanatory Patterns in the Life Sciences*. P.-A. Braillard and C. Malaterre (eds), Springer, Dordrecht, pp. 135–173.
24. 2014, “Multilevel research strategies and biological systems” (second author, with Maureen A. O’Malley, Alan C. Love, John W. Crawford, Jack A. Gilbert, Rob Knight, Sandra D. Mitchell, and Forest Rohwer). *Philosophy of Science* 81: 811–828.
23. 2013, “Systems biology and the integration of mechanistic explanation and mathematical explanation.” *Studies in History and Philosophy of Biological and Biomedical Sciences* 44: 477–492.

22. 2013, “Intelligent design and the nature of science: philosophical and pedagogical points.” In: *The Philosophy of Biology: A Companion for Educators*. K. Kampourakis (ed), Springer, Dordrecht, pp. 205–238.
21. 2013, “Explanation in biology: reduction, pluralism, and explanatory aims.” *Science & Education* 22: 69–91.
20. 2012, “Conceptualizing evolutionary novelty: moving beyond definitional debates” (with Alan C. Love). *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* 318: 417–427.
19. 2011, “Essay: Homology.” *The Embryo Project Encyclopedia*. ISSN: 1940-5030. <http://embryo.asu.edu/handle/10776/1754> (6000 words)
18. 2011, Review essay of *Evidence and Evolution: The Logic Behind the Science* by Elliott Sober, Cambridge University Press, 2008. *Canadian Journal of Philosophy* 41: 159–186.
17. 2010, “Beyond reduction and pluralism: toward an epistemology of explanatory integration in biology.” *Erkenntnis* 73: 295–311.
16. 2010, “The epistemic goal of a concept: accounting for the rationality of semantic change and variation.” *Synthese* 177: 19–40.
15. 2010, “Scientific reasoning is material inference: combining confirmation, discovery, and explanation.” *International Studies in the Philosophy of Science* 24: 31–43.
14. 2010, “Evolutionary novelty and the evo-devo synthesis: field notes” (with Alan C. Love). *Evolutionary Biology* 37: 93–99.
13. 2009, “Homology: homeostatic property cluster kinds in systematics and evolution” (second author, with Leandro C. S. Assis). *Evolutionary Biology* 36: 248–255.
12. 2009, “Accounting for vertebrate limbs: from Owen’s homology to novelty in evo-devo.” Review essay of Richard Owen’s *On the Nature of Limbs: A Discourse* edited by Ron Amundson, University of Chicago Press, 2007. *Philosophy & Theory in Biology* 1: e004. (6600 words)
- 11c. 2017, “Reductionism in biology” (with Alan C. Love). *The Stanford Encyclopedia of Philosophy* (Spring 2017 edition). <https://plato.stanford.edu/entries/reduction-biology> (revised and enlarged version, 25 200 words)
- 11b. 2012, “Reductionism in biology” (with Alan C. Love). *The Stanford Encyclopedia of Philosophy* (Summer 2012 edition). <https://plato.stanford.edu/archives/sum2012/entries/reduction-biology/> (revised and enlarged version, 24 300 words)
- 11a. 2008, “Reductionism in biology” (with Alan C. Love). *The Stanford Encyclopedia of Philosophy* (Summer 2008 edition). https://plato.stanford.edu/archives/sum2008/entries/reduction-biology (20700 words)
10. 2006, “Homology and heterochrony: the evolutionary embryologist Gavin Rylands de Beer (1899–1972).” *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* 306B: 317–328.
9. 2005, “The instinct concept of the early Konrad Lorenz.” *Journal of the History of Biology* 38: 571–608.
8. 2004, “Holism, concept individuation, and conceptual change.” In: *Proceedings of the 4th Congress of the Spanish Society for Analytic Philosophy*. M. Hernandez Iglesias (ed), Universidad de Murcia, Murcia, pp. 30–34.
7. 2004, “Biological kinds and the causal theory of reference.” In: *Experience and Analysis: Papers of the 27th International Wittgenstein Symposium*. J. C. Marek and M. E. Reicher (eds), Austrian Ludwig Wittgenstein Society, Kirchberg am Wechsel, pp. 58–60.
6. 2003, “Species pluralism does not imply species eliminativism.” *Philosophy of Science* 70: 1305–1316.

5. 2003, “Homology in comparative, molecular, and evolutionary developmental biology: the radiation of a concept.” *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* 299B: 9–17.
4. 2003, “Gestalt experiments and inductive observations: Konrad Lorenz’s early epistemological writings and the methods of classical ethology.” *Evolution and Cognition* 9: 157–170.
3. 2002, “Homology and the origin of correspondence.” *Biology and Philosophy* 17: 389–407.
2. 2001, “The homeopathy of kin selection: an evaluation of van den Berghe’s sociobiological approach to ethnicity.” *Politics and the Life Sciences* 20: 203–215.
1. 2001, “Quantifier elimination in tame infinite p-adic fields.” *The Journal of Symbolic Logic* 66: 1493–1503.

INVITED PAPERS

25. 2020, “How are biology concepts used and transformed?” To appear in: *Philosophy of Science for Biologists*. K. Kampourakis and T. Uller (eds), Cambridge University Press, Cambridge, pp. 79–101.
24. 2020, “Strategic conceptual engineering for epistemic and social aims” (with Esther Rosario). In: *Conceptual Engineering and Conceptual Ethics*. A. Burgess, H. Cappelen, and D. Plunkett (eds), Oxford University Press, Oxford, pp. 100–124.
23. 2019, “John Tyler Bonner: Remembering a scientific pioneer” (with Laura A. Katz, Vidyanand Nanjundiah, Scott F. Gilbert, Peter R. Grant, B. Rosemary Grant, Alan C. Love, Stuart A. Newman, and Mary Jane West-Eberhard). *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* 332: 365–370.
22. 2019, “A special issue on *The Evolution of Evolution*.” *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* 332: 299–300.
21. 2018, “Systems biology and mechanistic explanation” (with Sara Green and Maureen A. O’Malley). In: *The Routledge Handbook of Mechanisms and Mechanical Philosophy*. S. Glennan and P. Illari (eds), Routledge, New York, pp. 362–374.
20. 2017, “Typology and natural kinds in evo-devo.” In: *Evolutionary Developmental Biology: A Reference Guide*. L. Nuño de la Rosa and G. Müller (eds), Springer, Cham. doi:10.1007/978-3-319-33038-9_100-1 (5000 words)
19. 2016, “Do we need a ‘theory’ of development?” Review essay of *Towards a Theory of Development* edited by Alessandro Minelli and Thomas Pradeu, Oxford University Press, 2014. *Biology & Philosophy* 31: 603–617.
18. 2015, “From developmental constraint to evolvability: how concepts figure in explanation and disciplinary identity.” Forthcoming in: *Conceptual Change in Biology: Scientific and Philosophical Perspectives on Evolution and Development*. A. C. Love (ed), Springer, Dordrecht, 305–325.
17. 2013, “A critique of David Chalmers’ and Frank Jackson’s account of concepts.” *ProtoSociology* 30: 63–88.
16. 2013, “Integration in biology: philosophical perspectives on the dynamics of interdisciplinarity” (introduction to the special section). *Studies in History and Philosophy of Biological and Biomedical Sciences* 44: 461–465.
15. 2012, “The dynamics of scientific concepts: the relevance of epistemic aims and values.” In: *Scientific Concepts and Investigative Practice*. U. Feest and F. Steinle (eds), de Gruyter, Berlin, pp. 75–103.
14. 2011, “Philosophy of biology.” In: *The Bloomsbury Companion to the Philosophy of Science*. S. French and J. Saatsi (eds), Bloomsbury Academic, London, pp. 246–267, 2014. (Hardback published in 2011 as *The Continuum Companion to the Philosophy of Science*.)

13. 2011, “Natural kinds and concepts: a pragmatist and methodologically naturalistic account.” In: *Pragmatism, Science and Naturalism*. J. Knowles and H. Rydenfelt (eds), Peter Lang, Frankfurt am Main, pp. 171–196.
12. 2010, “Jenseits des Neodarwinismus? Neuere Entwicklungen in der Evolutionsbiologie” [Beyond neo-Darwinism? Recent developments in evolutionary biology]. In: *Evolution: Ein interdisziplinäres Handbuch*. P. Sarasin and M. Sommer (eds), J. B. Metzler Verlag, Stuttgart, pp. 115–126.
11. 2010, “Kreationismus und Intelligent Design” [Creationism and intelligent design]. In: *Evolution: Ein interdisziplinäres Handbuch*. P. Sarasin and M. Sommer (eds), J. B. Metzler Verlag, Stuttgart, pp. 350–357.
10. 2010, “Instinkt und Intellekt” [Instinct and intellect]. In: *Evolution: Ein interdisziplinäres Handbuch*. P. Sarasin and M. Sommer (eds), J. B. Metzler Verlag, Stuttgart, pp. 32–33.
9. 2010, “Homologie” [Homology]. In: *Evolution: Ein interdisziplinäres Handbuch*. P. Sarasin and M. Sommer (eds), J. B. Metzler Verlag, Stuttgart, pp. 30–31.
8. 2010, “Egoismus, Altruismus” [Selfishness, altruism]. In: *Evolution: Ein interdisziplinäres Handbuch*. P. Sarasin and M. Sommer (eds), J. B. Metzler Verlag, Stuttgart, pp. 12–14.
7. 2010, “Anpassung” [Adaptation]. In: *Evolution: Ein interdisziplinäres Handbuch*. P. Sarasin and M. Sommer (eds), J. B. Metzler Verlag, Stuttgart, pp. 5–7.
6. 2009, “Natural kinds in evolution and systematics: metaphysical and epistemological considerations.” *Acta Biotheoretica* 57: 77–97.
5. 2007, “When traditional essentialism fails: biological natural kinds” (third author, with Robert A. Wilson and Matthew J. Barker). *Philosophical Topics* 35: 189–215.
4. 2007, “Typology now: homology and developmental constraints explain evolvability.” *Biology & Philosophy* 22: 709–725.
3. 2007, “The importance of homology for biology and philosophy” (with Paul E. Griffiths, introduction to the special issue). *Biology & Philosophy* 22: 633–641.
2. 2006, “Philosophical issues in experimental biology.” Review essay of *The Philosophy of Experimental Biology* by Marcel Weber, Cambridge University Press, 2005. *Biology and Philosophy* 21: 423–435.
1. 2005, “La prima fase dello sviluppo teorico di Konrad Lorenz e i fattori motivanti del suo concetto di istinto” [The early theoretical development of Konrad Lorenz and the motivating factors behind his instinct concept]. In: *Konrad Lorenz cent'anni dopo: L'eredità scientifica del padre dell'etologia*. M. Celentano and M. Stanzione (eds), Rubbettino Editore, Soveria Mannelli, pp. 47–69.

BOOK REVIEWS

17. 2016, Review of *Reductive Explanation in the Biological Sciences* by Marie I. Kaiser, Springer, 2015. *Notre Dame Philosophical Reviews* 2016.08.22.
16. 2014, Review of *In Search of Mechanisms: Discoveries across the Life Sciences* by Carl F. Craver and Lindley Darden, University of Chicago Press, 2013. *Isis* 105: 875–876.
15. 2012, Review of *Epistemology and Science Education: Understanding the Evolution vs. Intelligent Design Controversy* edited by Roger S. Taylor and Michel Ferrari, Routledge, 2010. *Science & Education* 21: 579–582.
14. 2011, Review of *Darwinian Populations and Natural Selection* by Peter Godfrey-Smith, Oxford University Press, 2009. *The Philosophical Review* 120: 140–143.

13. 2010, Review of *Being Reduced: New Essays on Reduction, Explanation, and Causation* edited by Jakob Hohwy and Jesper Kallestrup, Oxford University Press, 2008. *The Philosophical Quarterly* 60: 873–875.
12. 2008, “More worry and less love?” (with Alan C. Love, Karola Stotz, Daniel Schweitzer and Alex Rosenberg). Review symposium of *Darwinian Reductionism: Or, How to Stop Worrying and Love Molecular Biology* by Alex Rosenberg, University of Chicago Press, 2006. *Metascience* 17: 1–26.
11. 2008, Review of *The Architecture of the Mind: Massive Modularity and the Flexibility of Thought* by Peter Carruthers, Oxford University Press, 2006. *Philosophy in Review / Comptes rendus philosophiques* 28: 246–248.
10. 2007, Review of *From Embryology to Evo-Devo: A History of Developmental Evolution* edited by Manfred Laubichler and Jane Maienschein, MIT Press, 2007. *History and Philosophy of the Life Sciences* 29: 529–531.
9. 2007, Review of *Reductionism in the Philosophy of Science* by Christian Sachse, Ontos Verlag, 2007. *Notre Dame Philosophical Reviews* 2007.09.01.
8. 2007, Review of *Exceeding Our Grasp: Science, History, and the Problem of Unconceived Alternatives* by P. Kyle Stanford, Oxford University Press, 2006. *Isis* 98: 435–436.
7. 2005, Review of *Embryology, Epigenesis, and Evolution: Taking Development Seriously* by Jason Robert, Cambridge University Press, 2004. *Philosophy of Science* 72: 650–653.
6. 2005, Review of *The Changing Role of the Embryo in Evolutionary Thought: Roots of Evo-Devo* by Ron Amundson, Cambridge University Press, 2005. *American Journal of Human Biology* 17: 670–672.
5. 2003, Review of *Causation and Explanation* by Stathis Psillos, McGill-Queen’s University Press, 2002. *Philosophy of Science* 70: 844–846.
4. 2003, Review of *The Mind’s Arrows: Bayes Nets and Graphical Causal Models in Psychology* by Clark Glymour, MIT Press, 2001. *Erkenntnis* 59: 136–140.
3. 2002, “The Linnean tradition under attack.” Review of *The Poverty of the Linnean Hierarchy: A Philosophical Study of Biological Taxonomy* by Marc Ereshefsky, Cambridge University Press, 2000. *Metascience* 11: 355–358.
2. 2002, Review of *What Functions Explain: Functional Explanation and Self-Reproducing Systems* by Peter McLaughlin, Cambridge University Press, 2001. *Erkenntnis* 57: 123–126.
1. 2002, “A fierce debate about our picture of evolution.” Review of *Dawkins vs. Gould: Survival of the Fittest* by Kim Sterelny, Icon Books, 2001. *Metascience* 11: 246–248.

REFEREED PRESENTATIONS

45. “Toward a more fine-grained and diverse methodological landscape of human behavior research.” *SPSP 2021* (biennial meeting of the *Society for Philosophy of Science in Practice*). Michigan State University, USA. July 7–9, 2021.
44. “The role of non-epistemic values for psychiatric classification and biomedical kinds.” *ISHPSSB 2019* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). University of Oslo, July 10, 2019.
43. “Towards a more fine-grained methodological landscape of the study of human behavior.” *CSHPS 2019* (biennial meeting of the *Canadian Society for the History and Philosophy of Science*). University of British Columbia, Canada, June 3, 2019.
42. “How to philosophically tackle kinds without talking about ‘natural kinds’.” *SPSP 2018* (biennial meeting of the *Society for Philosophy of Science in Practice*). University of Ghent, Belgium. July 2, 2018.

41. “Three concepts of gender for different social aims” (joint paper with Esther Rosario, presented by Ingo Brigandt). *ISHPSSB 2017* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). University of São Paulo, Brazil. July 19, 2017.
40. “Three concepts of gender for different social aims” (joint paper presented by Esther Rosario). *CSHPS 2017* (biennial meeting of the *Canadian Society for the History and Philosophy of Science*). Ryerson University, Canada. May 27, 2017.
39. “Explanatory understanding without tracking mechanism operation.” *PSA 2016* (biennial meeting of the *Philosophy of Science Association*). Atlanta, USA. November 5, 2016.
38. “Explanatory understanding in systems biology without mechanistic explanation.” *CSHPS 2016* (meeting of the *Canadian Society for the History and Philosophy of Science*). University of Calgary, Canada. May 28, 2016.
37. “A scientific theory’s purpose: social values in theory acceptance.” *ISHPSSB 2015* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). Université du Québec à Montréal, Canada. July 7, 2015.
36. “Different types of explanatory mathematical analysis in systems biology.” *ISHPSSB 2015* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). Université du Québec à Montréal, Canada. July 6, 2015.
35. “Social values influence the adequacy conditions of scientific theories: beyond inductive risk.” *PSA 2014* (biennial meeting of the *Philosophy of Science Association*). Chicago, USA. November 6, 2014.
34. “Social values influence the adequacy conditions of scientific theories.” *CSHPS 2014* (meeting of the *Canadian Society for the History and Philosophy of Science*). Brock University, Canada. May 26, 2014.
33. “Systems biology and the limits of philosophical accounts of mechanistic explanation.” *ISHPSSB 2013* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). Montpellier, France. July 11, 2013.
32. “Systems biology and the limits of philosophical accounts of mechanistic explanation.” *SPSP 2013* (biennial meeting of the *Society for Philosophy of Science in Practice*). University of Toronto, Canada. June 27, 2013.
31. “Integrating causal-mechanistic explanation and mathematical modeling in systems biology.” *PSA 2012* (biennial meeting of the *Philosophy of Science Association*). San Diego, USA. November 17, 2012.
30. “Evolutionary developmental biology and the limits of philosophical accounts of mechanistic explanation.” *CSHPS 2012* (meeting of the *Canadian Society for the History and Philosophy of Science*). Wilfrid Laurier University and University of Waterloo, Canada. May 27, 2012.
29. “‘Developmental constraint’ in the 1980s.” *ISHPSSB 2011* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). University of Utah, USA. July 13, 2011.
28. “A critique of two-dimensional semantics.” *CPA 2011* (meeting of the *Canadian Philosophical Association*). University of New Brunswick and St. Thomas University, Canada. May 30, 2011.
27. “‘Developmental constraint’ in the 1980s: positive explanatory agenda or mere tool of criticism?” *CSHPS 2011* (meeting of the *Canadian Society for the History and Philosophy of Science*). University of New Brunswick and St. Thomas University, Canada. May 29, 2011.
26. “Beyond armchair intuitions and experimental philosophy: lessons from biological concepts.” *CSHPS 2010* (meeting of the *Canadian Society for the History and Philosophy of Science*). Concordia University, Canada. May 29, 2010.
25. “Toward an epistemology of explanatory integration in biology.” *ISHPSSB 2009* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). University of Queensland, Australia. July 13, 2009.

24. "Scientific reasoning is material inference: combining confirmation, discovery, and explanation." *SEP 2009* (37th meeting of the *Society for Exact Philosophy*). University of Alberta, Canada. May 8, 2009.
23. "Continuity in scientific concept use: homology in the 19th century before and after Darwin." *HSS 2008* (meeting of the *History of Science Society*). Pittsburgh, USA. November 8, 2008.
22. "Scientific reasoning is material inference: combining confirmation, discovery, and explanation." *PSA 2008* (biennial meeting of the *Philosophy of Science Association*). Pittsburgh, USA. November 6, 2008.
21. "Natural kinds in evolution and systematics: from metaphysics to epistemology." *WCPA 2008* (45th *Conference of the Western Canadian Philosophical Association*). University of Alberta, Canada. October 25, 2008.
20. "An epistemology of explanatory integration in biology." *CPA 2008* (meeting of the *Canadian Philosophical Association*). University of British Columbia, Canada. June 2008.
19. "Continuity in scientific concept use: homology in the 19th century before and after Darwin." *CSHPS 2008* (meeting of the *Canadian Society for the History and Philosophy of Science*). University of British Columbia, Canada. June 2008.
18. "Beyond reduction and pluralism: an epistemology of explanatory integration in biology." *Reduction and the Special Sciences*. Tilburg University, The Netherlands. April 2008.
17. "Typology now: homology and developmental constraints explain evolvability." *ISHPSSB 2007* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). University of Exeter, UK. July 2007.
16. "The epistemic goal pursued by a scientific term's use as an aspect of meaning." *Non-Truth Conditional Aspects of Meaning* (5th *Barcelona Workshop on Issues in the Theory of Reference*). Barcelona, Spain. June 2007.
15. "How historically informed philosophers can contribute to challenges within biology." *Does Philosophy Matter to Science?* State University of New York, Stony Brook University, USA. March 2007.
14. "Holism, concept individuation, and conceptual change." *WCPA 2006* (43rd *Conference of the Western Canadian Philosophical Association*). Simon Fraser University, Canada. October 2006.
13. "An alternative to Kitcher's theory of conceptual progress and his account of the change of the gene concept." *5th European Congress for Analytic Philosophy*. University of Lisbon, Portugal. August 2005.
12. "Explanation and scientific reasoning: bringing concepts back in." *Philosophical Perspectives on Scientific Understanding*. Free University of Amsterdam, The Netherlands. August 2005.
11. "Holism, concept individuation, and conceptual change." *4th Congress of the Spanish Society for Analytic Philosophy*. University of Murcia, Spain. December 2004.
10. "Biological kinds and the causal theory of reference." *Experience and Analysis* (27th *International Wittgenstein Symposium of the Austrian Wittgenstein Society*). Kirchberg am Wechsel, Austria. August 2004.
9. "Conceptual role semantics, the theory theory, and conceptual change." *First Joint Conference of the Society for Philosophy and Psychology and the European Society for Philosophy and Psychology*. Barcelona, Spain. July 2004.
8. "A critique of Kitcher's theory of conceptual progress and his account of the change of the gene concept." *Southwest Colloquium in the History and Philosophy of the Life Sciences*. University of Texas at Austin, USA. March 2004.
7. "The role a concept plays in science: the case of homology." *International Congress for Logic, Methodology, and Philosophy of Science*. Oviedo, Spain. August 2003.

6. “The instinct concept of the early Konrad Lorenz.” *ISHPSSB 2003* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). Vienna, Austria. July 2003.
5. “The instinct concept of the early Konrad Lorenz.” *Joint Atlantic Seminar for the History of Biology*. Rockefeller University, USA. April 2003.
4. “Species pluralism does not imply species eliminativism.” *PSA 2002* (biennial meeting of the *Philosophy of Science Association*). Milwaukee, USA. November 2002.
3. “Species pluralism does not imply species eliminativism.” *Philosophy of Biology Graduate Student Conference*. University of Texas at Austin, USA. April 2002.
2. “Quantifier elimination in tame infinite p-adic fields.” *Studierendenkonferenz Mathematik, Deutsche Mathematiker-Vereinigung*. University of Mainz, Germany. September 1999.
1. “Quantifier elimination in infinite p-adic fields.” *14th Conference for Young Algebraists*. University of Potsdam, Germany. February 1999.

KEYNOTE ADDRESSES

2. “Homologues as units of evolvability: the role of structure and function.” *Form, Function and Homology (Duke’s 8th Annual Conference in Philosophy & Biology and the Annual Consortium for the History and Philosophy of Biology)*. Duke University, USA. May 22, 2009.
1. “Reductive naturalism and the use of intuitions: two lessons from biology.” *Kazimierz Naturalism Workshop 2008*. Kazimierz Dolny, Poland. September 7, 2008.

INVITED PRESENTATIONS

59. “Beware of metaphilosophy? Reflections on the connection between experimental philosophy and conceptual engineering.” *ConceptLab*, University of Oslo, Norway. December 12, 2019.
58. “Robustness in organisms and molecular systems: implications for scientific explanation and the nature of biological systems.” *Complexity, Inter-Connectivity and Resilience*, AlmaDea I-CoRe Final Conference. University of Bologna, Italy. December 6, 2019.
57. “How to tackle kinds without talking about ‘natural kinds’.” Norwegian University of Science and Technology, Norway. December 3, 2019.
56. “How to tackle kinds without talking about ‘natural kinds’.” Science Studies Colloquium Series, University of Oslo, Norway. September 18, 2019.
55. “Notions of mechanism in evo-devo and systems biology.” *Venice Summer School 2019: Mechanism in Evolution & Development*. Venice, Italy. August 26, 2019.
54. “Evolvability: philosophical issues” (with Alan Love). *Evolvability: A New and Unifying Concept in Evolutionary Biology?* Norwegian Academy of Science and Letters, Oslo, Norway. August 15, 2019.
53. “How to philosophically tackle kinds without talking about ‘natural kinds’.” *Engaging with Science, Values, and Society*. University of Alberta, Canada. May 10, 2019.
52. “Philosophy of science on modelling molecular systems: current debates and future agendas.” *Mathematical Challenges in the Analysis of Continuum Models for Cancer Growth, Evolution and Therapy*. Casa Matemática Oaxaca, Mexico. November 29, 2018.
51. “Historical and philosophical perspectives on developmental bias.” *Developmental Biases in Evolution*. Santa Fe Institute, USA. November 14, 2018.

50. “Scrutinizing gender based brain studies and epigenetic approaches to psychiatric conditions” (with Esther Rosario). *The Biology of Behaviour: Explanatory Pluralism Across the Life Sciences*. Université du Québec à Montréal, Canada. May 11, 2018.
49. “How to philosophically tackle kinds without talking about ‘natural kinds’.” Department of Philosophy, University of Idaho, USA. March 23, 2018.
48. “Strategic conceptual engineering for epistemic and social aims” (joint paper with Esther Rosario, presented by Ingo Brigandt). Department of Philosophy, Western University, Canada. November 10, 2016.
47. “Strategic conceptual engineering for epistemic and social aims” (with Esther Rosario). *Workshop on Conceptual Ethics and Conceptual Engineering*. University of Oslo, Norway. June 17, 2016.
46. “Research on developmental constraints in the 1980s, and its relevance to current work on evolvability.” *What Can the Philosophy of Biology Learn from the History of Biology? First Utrecht Workshop in Philosophy of the Life Sciences*. University of Utrecht, The Netherlands. March 20, 2016.
45. “Integration from the philosophy of science’s perspective.” Workshop at the winter school *Integration and Translation in Systems Medicine*. University of Hamburg, Germany. February 2, 2016.
44. “Different types of explanatory mathematical analysis in systems biology.” *S-ANU 2015*. University of Sydney, Australia. May 28, 2015.
43. “Structure and function in organismal systems: plasticity, robustness, and the limits of modularity.” *Approaches to Variation and Stability in Contemporary Biology*. University of Sydney, Australia, May 27, 2015.
42. “A scientific theory’s purpose: social values in theory acceptance beyond inductive risk.” Department of Philosophy, University of Sydney, Australia. April 30, 2015.
41. “A scientific theory’s purpose: social values in theory acceptance beyond inductive risk.” Department of Philosophy, University of Alberta, Canada. February 5, 2015.
40. “Viewing a scientific concept as tied to aims and standards.” *Workshop on Conceptual Engineering*. University of Oslo, Norway. January 14, 2015.
39. “Social values influence the adequacy conditions of scientific theories: beyond inductive risk.” Center for Philosophy of Science, University of Pittsburgh, USA. September 16, 2014.
38. “Accounts of mechanistic explanation in philosophy: the challenge from systems biology.” Centre for Mathematical Biology, University of Alberta, Canada. November 25, 2013.
37. “Epistemic aims and values tied to a biological concept: conceptual change, conceptual variation, and interdisciplinary coordination.” *ConChaMo 5: Conceptual Change and Interdisciplinary Issues*. Porvoo, Finland. June 4, 2013.
36. “Is science value-free?” *LogiCON 2013*. University of Alberta, Canada. May 5, 2013.
35. “Bodily parts in the structure-function dialectic.” *What is an Individual?* University of Wisconsin–Madison, USA. December 15, 2012.
34. “Systems biology and the integration of mechanistic explanation and mathematical explanation.” *Integration in Biology and Biomedicine: What It Is, How It Works, and What Philosophers and Scientists Have to Say About It*. University of Sydney, Australia. May 4, 2012.
33. “Conceptual analysis and philosophical method: lessons from concept change in science.” Department of Philosophy, University of Sydney, Australia. May 2, 2012.
32. “The nature of science: the case of intelligent design.” Program in Science, Technology and Society and Department of Philosophy, University of Alberta, Canada. April 12, 2012.
31. “Conceptual change in biology and conceptual analysis in philosophy: a combined framework.” Department of Philosophy, Georgia State University, USA. March 9, 2012.

30. "The question of integration and interdisciplinarity in current philosophy of biology." *Integration in Contemporary Biology: Philosophical Perspectives on the Dynamics of Interdisciplinarity*. University of Minnesota, USA. September 24, 2011.
29. "What is science? Intelligent design and the history and philosophy of science." Center for Inquiry Edmonton and University of Alberta Atheists and Agnostics, University of Alberta, Canada. September 15, 2011.
28. "The concept of the gene: how to deal with a term's varying uses and definitions?" Genetics Invited Speaker Seminar Series, Department of Biology, University of Alberta, Canada. March 28, 2011.
27. "The dynamics of scientific concepts: the relevance of epistemic aims and values." *Scientific Concepts and Investigative Practice*. Berlin, Germany. January 7, 2011.
26. "Organismal form and its change in evolution and development." Departments of Philosophy and Mathematics, University of Lille - Nord de France, France. December 17, 2010.
25. "A methodologically naturalistic perspective on natural kinds and concepts." Institut d'Histoire et de Philosophie des Sciences et des Techniques, Paris, France. December 16, 2010.
24. "Debates about novelty and the nature of evo-devo." *Perspectives on Evolutionary Novelty and Evo-devo: Integrating Explanatory Approaches in Biology*. McGill University, November 7, 2010.
23. "From developmental constraint to evolvability: how concepts figure in explanation and disciplinary identity." *Conceptual Change in Biological Science: Evolutionary Developmental Biology, 1981–2011*. Max Planck Institute for the History of Science, Berlin, Germany. July 17, 2010.
22. "Determination of non-homology." *Integrating Different Biological Approaches*. University of Alberta, Canada. November 14, 2009.
21. "Natural kinds and concepts: a broadly pragmatist account." *Pragmatism, Science and Naturalism*. Norwegian University of Science and Technology, Norway. May 15, 2009.
20. "Beyond reduction and pluralism: an epistemology of explanatory integration in biology." Program in Science, Technology and Society, University of Alberta, Canada. February 2008.
19. "The epistemic goal pursued by a scientific term's use as an aspect of meaning." Department of Philosophy, University of Alberta, Canada. November 2007.
18. "Natural kinds in evolution and systematics: from metaphysics to epistemology." *Nature and Its Classification: A Metaphysics of Science Conference*. Birmingham, UK. October 2007.
17. "Essentialism, variation, and representations in biology." *Understanding Human Variation*. University of Alberta, Canada. September 2007.
16. "A concept's epistemic goal: accounting for the rationality of semantic change." Department of Philosophy, University of Calgary, Canada. March 2007.
15. "Non-reductionism: explanation and methodology in developmental biology." *Idealization, Mechanism and Reduction: New Directions in the Philosophy of Proximal Biology (3rd Queensland Biohumanities Conference)*. University of Queensland, Australia. December 2006.
14. "Typology now: homology and developmental constraints explain evolvability." Meeting of the *Philosophy and Developmental Biology Working Group*. Vancouver, Canada. November 2006.
13. "Scientific practice, conceptual change, and the nature of concepts." *Concepts and Objectivity: Knowledge, Science, and Values*. University of Pittsburgh, USA. September 2006.
12. "Evolutionary developmental biology: morphology or developmental genetics?" Program in Science, Technology and Society, University of Alberta, Canada. March 2006.
11. "Homology in 19th century biology: continuity between pre- and post-Darwinian biological practice." Institute for the History and Philosophy of Science and Technology, University of Toronto, Canada. February 2006.
10. "A concept's epistemic goal and the rationality of conceptual change." School of Philosophy, University of Leeds, UK. February 2006.
9. "What is a concept that it makes successful practice possible and can rationally change?" Department of Philosophy and Humanities, East Tennessee State University, USA. January 2006.

8. “What is a concept that it makes successful practice possible and can rationally change?” Department of Philosophy, University of Alberta, Canada. January 2006.
7. “Reference determination and conceptual change.” Department of Philosophy, University of Oslo, Norway. May 2005.
6. “An alternative to Kitcher’s theory of conceptual progress and his account of the change of the gene concept.” Department of Philosophy, University of Oslo, Norway. June 2004.
5. “The early theoretical development of Konrad Lorenz: the motivating factors behind his instinct concept.” *1903–2003: Konrad Lorenz cent’anni dopo. Come ripensare l’etologia umana?* Università degli Studi di Napoli Federico II, Italy. January 2004.
4. “Homology and the origin of correspondence.” Konrad Lorenz Institute for Evolution and Cognition Research, Austria. July 2002.
3. “Gestalt experiments and inductive observations: Konrad Lorenz’s early epistemological writings and the methods of classical ethology.” Konrad Lorenz Institute for Evolution and Cognition Research, Austria. June 2002.
2. “Species pluralism does not imply species eliminativism.” Konrad Lorenz Institute for Evolution and Cognition Research, Austria. June 2002.
1. “The role a concept plays in science: the case of homology.” *Pittsburgh-London Workshop in the Philosophy of Biology and Neuroscience*. Birkbeck College, London, UK. September 2001.

COMMENTARIES, ROUNDTABLE DISCUSSIONS AND GUEST LECTURES

9. Commentary on Kenneth Waters ‘Scientific metaphysics of hierarchy.’ *2019 Conference on Essentialism and Anti-Essentialism* (3rd Meeting of the Canadian Metaphysics Collaborative). Banff Centre for Arts and Creativity, Canada. September 28, 2019.
8. Guest lecture on species concepts, for seminar ‘Philosophy of Natural Kinds’ (instructor: Corinne Bloch-Mullins). Marquette University, USA. November 12, 2018.
7. Book panel on Denis Walsh’s *Organisms, Agency, and Evolution* (Cambridge University Press, 2015). *CPA and CSHPS 2016* (joint session at the meetings of the *Canadian Philosophical Association* and the *Canadian Society for the History and Philosophy of Science*). University of Calgary, Canada. May 30, 2016.
6. Discussant at the *Calgary Summit of Philosophers of Science: Future Approaches for Philosophy of Biology*. University of Calgary, Canada. September 26–27, 2014.
5. Commentary on Sarah Roe and Bert Baumgaertner ‘The importance of the environment in complex modeling practice.’ *CPA 2014* (meeting of the *Canadian Philosophical Association*). Brock University, Canada. May 25, 2014.
4. Roundtable discussion “Philosophy of biology and biology education” (with Richard Burian, David Depew, Annie Jamieson, Alan Love, Anya Plutynski, Michael Ruse, Tobias Uller, and Kostas Kampourakis). *ISHPSSB 2013* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*). Montpellier, France. July 11, 2013.
3. Commentary on William Bechtel ‘Integrating molecular and systems approaches in chronobiology’ and Olaf Wolkenhauer ‘Integration in systems biology and systems medicine.’ *Integration in Biology and Biomedicine: What It Is, How It Works, and What Philosophers and Scientists Have to Say About It*. University of Sydney, Australia. May 3, 2012.
2. “Commentary on the papers by Manfred Laubichler, Sean Rice, and Brian Hall.” *Perspectives on Evolutionary Novelty and Evo-devo: Integrating Explanatory Approaches in Biology*. McGill University, Canada. November 7, 2010.

1. Commentary on S. Sarkar, J. Garson, and L. Wang 'How development may direct evolution.' *3rd Annual Philosophy and Developmental Biology Workshop*. University of Texas at Austin, USA. April 2002.

SUPERVISION AND TRAINING

Co-Supervisor of Postdoctoral Fellow

Joyce Havstad, Postdoctoral Fellow at the Integrative Research Center of the Field Museum of Natural History, Chicago, April 2014 – August 2015. Co-supervision with Olivier Rieppel and Scott Lidgard (both at the Field Museum)

Thesis Supervisor

Danielle Brown, *Personality Disorders as Natural Kinds: Making Room for Non-Epistemic Values in Psychiatry*. Ph.D. in Philosophy, in progress

Hui-Ming Chin, *Self-Consciousness and Its Mechanism: Can Bodily Experience Count as a Kind of Self-Consciousness?* Ph.D. in Philosophy, in progress

Esther Rosario, *Sex as a Biosocial Kind: A Case of Strategic Conceptual Engineering*. Ph.D. in Philosophy, in progress

Yang Zhao, *The Nature of Scientific Laws*. M.A in Philosophy, May 2018 (co-supervision)

Zi Huang, *A Phenomenological Interpretation of Organisms*. M.A in Philosophy, December 2017 (co-supervision)

Nasrin Sultana, *A Defense of Bertrand Russell's Theory of Definite Descriptions against Donnellan's Distinction*. M.A. in Philosophy, July 2017 (co-supervision)

Ernest Howe, *Critical Thinking, Philosophical Theories of Testimony, and the Challenge of Wikipedia Knowledge Claims*. Ph.D. in Theoretical, Cultural and International Studies in Education (Department of Educational Policy Studies, University of Alberta), August 2015

Taylor Murphy, *Cognitive Homology: Psychological Kinds as Biological Kinds in an Evolutionary Developmental Cognitive Science*. M.A. in Philosophy, September 2012

Sara Weaver, *A Crossdisciplinary Exploration of Essentialism about Kinds: Philosophical Perspectives in Feminism and the Philosophy of Biology*, M.A. in Philosophy, September 2011 (co-supervision)

Taylor Murphy, *Concepts and Counterfactual Reasoning*. B.A. (Honors) in Philosophy, May 2010 (co-supervision)

Thesis Supervisory Committee Member

Ka Ho Lam, *Natural Kind Realism, Taxonomic Monism and the Hierarchy Assumption*. Ph.D. in Philosophy, September 2019

Emma Peng Chien, *Beyond Cognition: Philosophical Issues in Autism*. Ph.D. in Philosophy, January 2017

Nicolas Bullot, *Tracking and Controlling Persons: Identification for Control in Cognitive Behaviours and Cultural Practices*. Ph.D. in Philosophy, September 2015

Andrew Ball, *Virtue in Context*. Ph.D. in Philosophy, January 2015

Jeffery Fedorkiw, *Compositionality and the Metaphysics of Meaning*. M.A. in Philosophy, August 2011

Michael Flood, *Eternalism, Presentism, and Change*. M.A. in Philosophy, June 2011

Andrei Buleandra, *The Prescriptivity of Conscious Belief*. Ph.D. in Philosophy, April 2011

Aristotle Hadjiantoniou, *Many-Sorted Free Logic*. M.A. in Philosophy, January 2009

Graduate Thesis Defence External Examiner

Simon Pollon, *Agency in the Natural World*. Ph.D. in Philosophy, Simon Fraser University, November 2019

Justin Bzovy, *Species Pluralism: Conceptual, Ontological, and Practical Dimensions*. Ph.D. in Philosophy, Western University, November 2016

Graduate Thesis Defence Arm's Length Examiner (for University of Alberta students)

Jason Bradshaw, *Decoding British Empiricism: A Distant Reading of Locke, Berkeley, and Hume*. M.A. in Digital Humanities with specialization in Philosophy, September 2019

Clarisse Paron, *Evaluating Challenges to Patient Autonomy in BRCA Gene Testing, Breast Cancer Culture, and Preventative Mastectomy*. M.A. in Philosophy, September 2019

Ceren Yıldız, *How to Reconcile Identity and What Matters in Survival: Y-Shaped Space-Time Worms*. M.A. in Philosophy, September 2018

Francisco Galan Tames, *Intuitions about Cases and Principles: A Defense of Reflective Equilibrium*. M.A. in Philosophy, May 2018

Sarah Bezan, *Nature Morte: Decomposing Darwinism's Evolutionary Aesthetics*. Ph.D. in English, September 2017

Meysam Shojaeenejad, *Success Semantics: Motivations, Problems, and Solutions*. M.A. in Philosophy, September 2017

Paul Showler, *Politics of Incommensurability: The Case of Rorty and Foucault*. M.A. in Philosophy, May 2016

Stephen Speake, *Debating Milk: Competing Discourses on Nutrition and Safety*. Ph.D. in Sociology (Department of Sociology, University of Alberta), September 2015

Katelyn Petersen, *Literature of Movement: Trends, Developments, and Prospects in Transcultural Literature as Exemplified by Contemporary German-Language Texts*. Ph.D. in Germanic Languages, Literatures and Linguistics (Department of Modern Languages and Cultural Studies, University of Alberta, joint Ph.D. program with the Ludwig Maximilian University of Munich), April 2013

Brian Dupuis, *The Cognitive Science of Reorientation*. M.Sc. in Psychology (Department of Psychology, University of Alberta), September 2012

Janet Grynas, *A Window on the Fatherland: Christian Kracht's Faserland in English Translation*. M.A. in Translation Studies (Department of Modern Languages and Cultural Studies, University of Alberta), August 2012

COURSES TAUGHT

At the University of Alberta

PHIL 217: Biology, Society, and Values. Winter 2009, Winter 2013, Winter 2014

PHIL 265: Philosophy of Science. Fall 2009, Winter 2012

PHIL 317: Philosophy of Biology. Winter 2007, Winter 2011, Fall 2012, Fall 2013

PHIL 386: Philosophy and Health Care. Fall 2008, Fall 2010, Fall 2012

PHIL 388: Philosophy and Nursing I. Fall 2011, Fall 2013

PHIL 405/505: Philosophy of Mind – Conceptual Analysis (seminar). Winter 2010

PHIL 405/505: Philosophy of Mind – Conceptual Analysis, Intuitions, and Experimental Philosophy (seminar). Winter 2017

PHIL 412/510: Philosophy of Science – Overview of Primary Literature (seminar). Winter 2009, Fall 2011

PHIL 412/510: Philosophy of Science – Science and Values (seminar). Fall 2015, Winter 2019

PHIL 412/510: Philosophy of Science – Biological and Social Kinds (seminar). Fall 2017

PHIL 415/510: Philosophy of Biology – Overview of Primary Literature (seminar). Winter 2008, Fall 2010, Winter 2014

PHIL 415/510: Philosophy of Biology – The Neuroscience of Human Diversity (seminar). Winter 2020

PHIL 510: Philosophy of Science – Science and Values (seminar). Winter 2013

At the University of Pittsburgh

Principles of Scientific Reasoning (introduction to inductive and deductive logic). Spring 2003

Problem Solving: How Science Works (critical and quantitative reasoning course for humanities majors). Fall 2003

Statistics and Causal Reasoning (critical and quantitative reasoning course). Spring 2004

Morality and Medicine. Fall 2004

Teaching Assistant (Weekly Tutorials) at the University of Pittsburgh

Introduction to Philosophy of Science

Morality and Medicine

Mind and Medicine (introduction to philosophy of mind from a historical perspective)

Explanations of Humans and Society (Freud, Skinner, Piaget)

Teaching Assistant (Weekly Tutorials) at the University of Konstanz

Philosophy of Probability (Department of Philosophy)

Algebra (Department of Mathematics)

Algebraic Number Theory (Department of Mathematics)

INVITED PROFESSIONAL REFEREEING

2020: *Philosophy of Science, Studies in History and Philosophy of Biological and Biomedical Sciences*. University of Alberta Philosophy Graduate and Postgraduate Conference (2x). KLI – Konrad Lorenz Institute

2019: *Biology & Philosophy, British Journal for the Philosophy of Science, Evolution & Development* (2x), *Evolutionary Biology, Metaphysics, Philosophical Psychology, Philosophical Transactions of the Royal Society B: Biological Sciences, Philosophy of Science* (2x), *Studies in History and Philosophy of Biological and Biomedical Sciences* (4x), *Synthese* (2x), *Theoria* (2x). 3rd Annual Meeting of the Canadian Metaphysics Collaborative, University of Alberta Philosophy Graduate and Postgraduate Conference (2x), annual congress of the *Western Canadian Philosophical Association*.

2018: *Biology & Philosophy, British Journal for the Philosophy of Science* (2x), *Erkenntnis, Journal for General Philosophy of Science* (2x), *Journal for the History of Philosophy, Journal of the History of Biology, PLOS ONE, Studies in History and Philosophy of Biological and Biomedical Sciences* (2x), *Synthese* (3x). Annual congress of the *Western Canadian Philosophical Association* and the *Canadian Society for Environmental Philosophy / Société Canadienne de Philosophie Environnementale* (2x). Netherlands Organization for Scientific Research; Research Foundation Flanders, Belgium; Social Sciences and Humanities Research Council, Canada

- 2017:** *British Journal for the Philosophy of Science*, *Foundations of Science*, *Philosophy of Science* (2x), *PLOS ONE*, *Principia: An International Journal of Epistemology*, *Studies in History and Philosophy of Biological and Biomedical Sciences*, *Synthese*, a submission to an edited volume to be published by Springer. Oxford University Press. Research Foundation Flanders, Belgium
- 2016:** *Australasian Journal of Philosophy*, *Biological Theory*, *Erkenntnis*, *History and Philosophy of the Life Sciences*, *Journal of Philosophy*, *Philosophy of Science*, *Studies in History and Philosophy of Biological and Biomedical Sciences*, *Synthese* (2x). Annual congress of the *Canadian Philosophical Association*, 2016 *IEEE International Symposium on Ethics in Engineering, Science, and Technology* (3x), annual congress of the *Western Canadian Philosophical Association* Association and inaugural meeting of the *Canadian Society for Environmental Philosophy / Société Canadienne de Philosophie Environnementale* (4x). *Société de philosophie des sciences* (Prix Jeunes Chercheurs), France
- 2015:** *Bionomina*, *British Journal for the Philosophy of Science*, *Erkenntnis* (2x), *Philosophical Studies* (2x), *Philosophy of Science*, *Science & Education* (5x), *Studies in History and Philosophy of Biological and Biomedical Sciences* (2x), *Theory in Biosciences*. Annual congress of the *Canadian Philosophical Association*. Oxford University Press. DFG – German Research Foundation
- 2014:** *Biological Theory*, *BioScience*, *British Journal for the Philosophy of Science* (2x), *Episteme*, *Evolutionary Biology*, *Studies in History and Philosophy of Biological and Biomedical Sciences*, a submission to an edited volume to be published by Wiley-Blackwell. *Encyc – Eugenics Archives* (2 encyclopedia entries). Annual congress of the *Canadian Philosophical Association*. European Research Council
- 2013:** *Biological Reviews*, *BioScience*, *British Journal for the Philosophy of Science*, *History and Philosophy of the Life Sciences*, *Philosophy of Science* (2x), *Studies in History and Philosophy of Biological and Biomedical Sciences*, *Studies in History and Philosophy of Science*. Annual congress of the *Canadian Philosophical Association* (3x). Research Foundation Flanders, Belgium
- 2012:** *Biological Theory*, *Biology & Philosophy*, *Bionomina*, *British Journal for the Philosophy of Science*, *Evolution: Education and Outreach*, *Mind*, *Philosophy & Technology*, *Philosophy & Theory in Biology*, *Philosophy of Science*, *Science & Education*, *Studies in History and Philosophy of Biological and Biomedical Sciences*, *Zootaxa*, submissions to edited volumes to be published by Sage and by Springer (4x). Annual congress of the *Canadian Philosophical Association* (3x). National Science Foundation, USA (2x)
- 2011:** *Biological Theory*, *Biology & Philosophy*, *British Journal for the Philosophy of Science* (3x), *Canadian Journal of Philosophy*, *Compte Rendus Palevol* (2x), *Developmental Psychobiology*, *European Journal for Philosophy of Science*, *International Journal of Ecology and Environmental Sciences*, *Philosophy of Science* (2x), *Science & Education* (2x), *Studies in History and Philosophy of Science*, *Studies in History and Philosophy of Biological and Biomedical Sciences*. Annual congress of the *Canadian Philosophical Association* (3x). University of Pittsburgh Press. Netherlands Organization for Scientific Research
- 2010:** *British Journal for the Philosophy of Science*, *Journal of Experimental Biology Part B: Molecular and Developmental Evolution*, *Evolutionary Biology*, *The Monist*, *Philosophy & Theory in Biology*, *The Philosophical Quarterly*, *Philosophy of Science* (2x), *Studies in History and Philosophy of Biological and Biomedical Sciences*, *Synthese*. Annual congress of the *Canadian Philosophical Association* (4x), annual congress of the *Western Canadian Philosophical Association*. Wiley-Blackwell Publishers
- 2009:** *Biology & Philosophy*, *Erkenntnis*, *Evolutionary Biology*, *Journal of Experimental Biology Part B: Molecular and Developmental Evolution*, *Philosophical Transactions of the Royal Society B: Biological Sciences*, *Philosophers' Imprint*, *Philosophy of Science*, *Studies in History and Philosophy of Biological and Biomedical Sciences*. Annual congress of the *Canadian Philosophical Association* (2x). MIT Press

- 2008:** *Biology & Philosophy*, *British Journal for the Philosophy of Science* (3x), *Erkenntnis*, *Evolutionary Biology* (2x). Annual congress of the *Canadian Philosophical Association* (2x). Broadview Press
- 2007:** *Acta Biotheoretica*, *Biology & Philosophy* (2x), *British Journal for the Philosophy of Science*, *International Studies in the Philosophy of Science*, *Journal of Experimental Biology Part B: Molecular and Developmental Evolution* (2x), *Synthese*. Annual congress of the *Canadian Philosophical Association*
- 2006:** *Acta Biotheoretica*
- 2005:** *University of Pittsburgh / Carnegie Mellon University Graduate Student Philosophy Conference*
- 2004:** *Journal of Experimental Biology Part B: Molecular and Developmental Evolution*
- 2003:** *Philosophy of Science*
- 2001:** *University of Pittsburgh / Carnegie Mellon University Graduate Student Philosophy Conference*

PROFESSIONAL SERVICE

Public Activities

- Organization and hosting of workshop *Engaging with Science, Values, and Society*. University of Alberta, May 8–10, 2019.
20 participants from Canada and the USA (9 presentations).
- Program committee member of *ECAP 9* (Ninth European Congress of Analytic Philosophy). LMU Munich. August 21–28, 2017.
- Program committee member of the workshop *Science, Values and Democracy* (held in parallel with the 5th René Descartes Lectures delivered by Heather Douglas). Tilburg Center for Logic, Ethics and Philosophy of Science, University of Tilburg. September 5–7, 2016.
- Proposal and co-organization of two symposia on “Social and epistemic values in evolution” at *ISHPSSB 2015* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*), with Carla Fehr. Université du Québec à Montréal. July 5–10, 2015. 6 speakers in total, from Canada and the USA.
- Organization of workshop *Integration in Contemporary Biology: Philosophical Perspectives on the Dynamics of Interdisciplinarity*. University of Minnesota, September 23–25, 2011.
21 participants from Canada and the USA (11 presentations).
- Proposal and co-organization of two symposia at *ISHPSSB 2011* (biennial meeting of the *International Society for the History, Philosophy and Social Studies of Biology*), with Alan Love. University of Utah, July 10–15, 2011.
Symposium “Evo-devo, explanatory integration, and biological practices” (2 speakers, 1 commentator). Symposium “Evo-devo, explanatory integration, and physical science” (2 speakers, 2 commentators). Speakers/commentators from the USA, Spain, Canada, and Estonia.
- Organization of workshop *Perspectives on Evolutionary Novelty and Evo-devo: Integrating Explanatory Approaches in Biology*. McGill University, November 7–8, 2010.
19 participants from Canada, the USA, and Australia (14 presentations).
- Organization and hosting of workshop *Integrating Different Biological Approaches*. University of Alberta, November 13–15, 2009.
25 participants from Canada and the USA (10 presentations).
- Organization of reading group on evolutionary developmental biology and explanations of evolutionary novelty. Participants were students, postdocs and faculty from the Departments of Philosophy, Biological Sciences, and Economics at the University of Alberta. Meetings on September 17, October 1, October 15, and October 29.

Proposal and organization of two symposia at *WCPA 2008* (45th Conference of the *Western Canadian Philosophical Association*). University of Alberta, October 24–26, 2008.
 Symposium “Explanation and conceptual change in biology” (3 speakers). Symposium “Natural kinds in biology” (3 speakers). Speakers from Canada and the USA.

Service and Public Activities on Campus

Organization of visit and lecture “Bacon’s promise” by Janet Kourany (University of Notre Dame). Organized for the Program in Science, Technology, and Society and the Department of Philosophy, April 11, 2011.

Organization of visit and lecture “Mapping the moral terrain of science” by Heather Douglas (University of Waterloo). Organized for the Program in Science, Technology, and Society and the Department of Philosophy, April 4, 2011.

Co-organization of lecture “Is free will an illusion? Ethical and legal implications” (Brain Awareness week 2013) by Anthony Cashmore (University of Pennsylvania). Organized by the Centre for Neuroscience, the Department of Philosophy, and the Program in Religious Studies, March 14, 2013.

Organization of visit by Joan Roughgarden (Stanford University), including lectures “Evolutionary aspects of gender and sexuality” and “Incentives in the family firm”, November 8–9, 2010. (Funding was secured from the Program in Science, Technology, and Society, the Department of Philosophy, the Department of English and Film Studies, the Department of Sociology, and Exposure: Edmonton’s Queer Arts and Culture Festival.)

Organization of lecture “Charles Darwin and the integration of embryology and evolution: 1859–2009” by Brian K. Hall (Dalhousie University). Organized for the Program in Science, Technology, and Society, November 13, 2009.

Organization of lecture: “Mechanism, emergence and miscibility: the case for evo-devo” by Denis Walsh (University of Toronto). Organized for the Program in Science, Technology, and Society, March 12, 2009.

Guest speaker at professional development session for graduate students “Postdoc in the Arts, Social Sciences, Education”, organized by the Faculty of Graduate Studies and Research Outreach Office, February 2009.

Guest speaker at professional development session for graduate students “Searching for Suitable Postdoc Positions”, organized by the Faculty of Graduate Studies and Research Outreach Office, April 2008.

Service to the Faculty

Leadership Team Member of *Mediating Science & Technology*, a Signature Area of Research and Creative Collaboration, 2018–

Member, Dean’s Selection Committee for the Chair of the Department of Philosophy, 2017–2018

Research Committee Member, Faculty of Arts, 2013–2014 and 2015–2016

Advisory Council Member, Program in Science, Society and Technology, 2008–

Member, Dean’s Selection Committee for the Chair of the Department of Philosophy, 2012–2013

Acting Chair of the Department of East Asian Studies, 11–17 July 2016

Service to the Department

Associate Chair (Graduate Studies), 2015–

Acting Department Chair, 18–21 February 2020, 16–30 July 2018, 2–9 June 2018, 15–23 February 2018, 5–14 October 2017, 19 June – 14 July 2017, 11–15 April 2017, 20–26 February 2017, 12–17 December 2016, 11 July – 19 August 2016, 1–14 June 2016, 4–6 March 2016, 12–19 February 2016, 5–14 November 2015, 30 October 2015, 8–12 October 2015, 11–22 August 2015, 11 July – 6 August 2015, 27 July – 1 August 2012, 17–22 July 2012, 1–8 July 2012

Graduate Studies Committee Member, 2010–2014 and 2015–

Web Page Officer, 2010–2014

Visiting Speaker Officer, 2008–2011

Program Officer and Department Organizing Committee Member for the 45th conference of the *Western Canadian Philosophical Association*, October 24–26, 2008.

<http://www.ualberta.ca/~wcpa08>

Assisted with organization of the Annual Public Lecture in Philosophy “How should we aesthetically appreciate nature?” by Allen Carlson (University of Alberta) and the following reception. April 7, 2011.

Assisted with organization of the Annual Public Lecture in Philosophy “Anguish, despair, acceptance” by Adam Morton (University of Alberta) and the following reception. April 8, 2010.

Organization of Centenary Distinguished Lecture “The beginning of the world” by Calvin Normore (McGill University). Organization of following reception. November 28, 2008.

Organization of reception following colloquium lecture “Experience and perceptual judgment” by Anil Gupta (University of Pittsburgh). March 19, 2009.

Organization of reception following colloquium lecture “Modal epistemic logic with subjunctive markers and knowability” by Helge Rückert (University of Mannheim). February 11, 2008.

Examination Committee Chair: Yuan-chieh Yang (Ph.D. final examination, June 2018), Roxane Noël (M.A. final examination, June 2018), Francisco Galan Tames (M.A. final examination, May 2018), Meysam Shojaeenejad (M.A. final examination, September 2017), Cheryl Mack (Ph.D. candidacy examination, January 2017), E. Hande Tuna (Ph.D. final examination, September 2016), Justin Zylstra (Ph.D. final examination, May 2016), Paul Showler (M.A. final examination, May 2016), Rachel Loewen Walker (Ph.D. candidacy examination, March 2012), Mike Lockhart (Ph.D. candidacy examination, June 2010), Julian Fowke (M.A. final examination, August 2009), Charles Rodger (Ph.D. candidacy examination, May 2009), Stephanie Buri Choy (M.A. final examination, July 2008)

Ph.D. Comprehensive Examination Committee Chair: Philosophy of Science Committee (Winter 2013, 2015–2017, Winter 2020), Epistemology Committee (Fall 2012, 2015–2016, 2018–2019, Winter 2020), Feminist Philosophy Committee (2015–2016, 2017–2019, Winter 2020), Philosophy of Mind Committee (2017–2018), 20th Century Analytic Philosophy Committee (2018–2019, Winter 2020)

Ph.D. Comprehensive Examination Committee Member: Philosophy of Science Committee (2006–2014, 2015–2017), Epistemology Committee (2008–2014, 2015–2017), Philosophy of Mind Committee (2006–2007, 2011–2014, 2015–2018), Feminist Philosophy Committee (2016–2018), Philosophy of Language Committee (2008–2014), Logic Committee (2006–2008), 20th Century Analytic Philosophy Committee (2010–2011)