

## Curriculum Vitae

### **Tudor Baetu, Ph.D.**

Université du Québec à Trois-Rivières  
Département de philosophie et des arts  
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### ***Domaines de spécialisation***

Philosophie de la biologie, philosophie de la médecine, histoire et philosophie des sciences, philosophie de la psychologie, philosophie de l'esprit, épistémologie, métaphysique

### ***Domaines de compétence***

Éthique biomédicale, philosophie moderne, Kant, empirisme logique, logique

### ***Intérêts***

Je travaille sur des questions conceptuelles dans la philosophie de la biologie, la psychologie et la médecine, et leurs ramifications dans la philosophie de l'esprit, la métaphysique et l'épistémologie. Ceux-ci incluent la nature de la douleur, approches biopsychosociales dans la médecine et la recherche biomédicale, l'épistémologie et la métaphysique des explications causales et mécanistes, le rôle explicatif des modèles mathématiques et simulations informatiques, la philosophie de la recherche expérimentale, l'extrapolation et la généralisation dans les sciences de la vie, les concepts du gène et les concepts d'espèces.

### ***Positions académiques***

- |           |   |
|-----------|---|
| 2018–     | Professeur régulier, Université du Québec à Trois-Rivières (UQTR), Canada   |
| 2015–2018 | Professeur régulier, Département de philosophie, University of Bristol  |
| 2014–2015 | Professeur régulier, Département de philosophie,<br>Universidade do Vale do Rio dos Sinos (UNISINOS)                        |
| 2012–2014 | Chercheur postdoctoral, Konrad Lorenz Institute<br>Chargé de cours, Département de biologie théorique, Université de Vienne |
| 2008–2011 | Chargé de cours, Département de philosophie, University of Maryland   |

### ***Positions académiques***

- 2008–2010      Chercheur postdoctoral, Département de philosophie, University of Maryland
- 1999–2001      Associé de recherche, Lady Davis Institute, Hôpital général juif

### ***Formation***

- 2009            Ph.D., Département de philosophie, Université de Montréal  
                  Directeur de recherche : Dr. Yvon Gauthier
- 2005            M.A., Département de philosophie, Université Concordia  
                  Directeur de recherche : Dr. Vladimir Zeman
- 2001            M.Sc., Département de microbiologie et immunologie, Université McGill  
                  Directeur de recherche : Dr. John Hiscott
- 1999            B.Sc., Département de microbiologie et immunologie, Université McGill

### ***Cours enseignés***

#### *University of Bristol (Département de philosophie)*

- Philosophy of Medicine (2017)  
Philosophy of Natural and Social Science (2017)  
Philosophy of Biology (2016, 2017)  
Philosophy of Mind (2015, 2016, 2017)  
Ethics (2015, 2016)  
Postgraduate Seminar in Metaphysics and Epistemology (2015, 2016)  
Postgraduate Seminar in Philosophy of Biology (2015)  
Directeur de recherche (4 doctorants, 2 étudiants en maîtrise)  
Dissertations premier cycle (sujets en bioéthique, éthique de l'environnement, éthique de la technologie, philosophie de la biologie; 2015, 2016, 2017)  
Dissertations en Medical Humanities (2015, 2016, 2017)

#### *Universidade do Vale do Rio dos Sinos (UNISINOS, Département de philosophie)*

- Séminaire de troisième cycle en philosophie de la médecine :  
EBM-Médecine fondée sur les faits (2015)  
Séminaire de troisième cycle en philosophie moderne :  
La philosophie mécaniciste de Descartes (2015)

## **Cours enseignés**

*Universidade do Vale do Rio dos Sinos (UNISINOS, Département de philosophie)*

Épistémologie (2014, 2015)

Philosophie des sciences (2014, 2015)

Introduction à la philosophie (2014, 2015)

Histoire et philosophie des sciences (4 fois 2014-2015; *Département de psychologie*)

Dissertations premier cycle (1 étudiant)

Directeur de recherche (2 étudiants en maîtrise)

*Université de Vienne (Département de biologie théorique)*

Postgraduate Seminar in Philosophy of Biology (2012, 2013)

*University of Maryland (Département de philosophie)*

Theory of Knowledge (2010)

Introduction to Philosophy of Biology (2010)

*Université Concordia (Département de philosophie)*

Postgraduate Seminar : Logical Positivism (2006)

Introduction to Philosophy of Mind (2005)

*Université McGill (Département de microbiologie et immunologie)*

Advanced Virology (2000)

Honours Research (2000)

## **Bourses, subventions et mentions**

2012–2014 Konrad Lorenz Institute for Evolution and Cognition Research, Austria  
(bourse de recherche postdoctorale)

2008–2010 Fonds de la recherche sur la société et la culture, Québec, Canada  
(bourse de recherche postdoctorale)

2005–2008 Fonds de la recherche sur la société et la culture, Québec, Canada  
(bourse de recherche doctorale)

1999–2002 Fonds pour la formation de chercheurs et l'aide à la recherche, Québec, Canada  
(bourse de recherche maîtrise)  
Lady Davis Institute for Medical Research Stipend

2001 Wilfred Yaphe Award pour la meilleure dissertation en maîtrise (Université McGill)

**Publications** (cliquez sur le titre pour le texte intégral)

**Articles publiés**

1. Baetu, T. M. (2019), ‘[On the Possibility of Crucial Experiments in Biology](#)’, *British Journal for the Philosophy of Science*, 70(2):407-429, doi:10.1093/bjps/axx013
2. Baetu, T. M. (2019), ‘[On Pain Experience, Multidisciplinary Integration and the Level-Laden Conception of Science](#)’, *Synthese*, 196(8): 3231–3250, DOI 10.1007/s11229-017-1429-5
3. Baetu, T. M. (2016), ‘[From Interventions to Mechanistic Explanations](#)’, *Synthese*, 193:3311–3327
4. Baetu, T. M. (2016), ‘[The ‘Big Picture’: The Problem of Extrapolation in Basic Research](#)’, *British Journal for the Philosophy of Science*, 67(4): 941–964
5. Baetu, T. M. (2015), ‘[The Completeness of Mechanistic Explanations](#)’, *Philosophy of Science*, 82(5):775–786
6. Baetu, T. M. (2014), ‘[Models and the Mosaic of Scientific Knowledge. The Case of Immunology](#)’, *Studies in History and Philosophy of Biological and Biomedical Sciences*, 45:49–56
7. Baetu, T. M. (2013), ‘[Chance, Experimental Reproducibility, and Mechanistic Regularity](#)’, *International Studies in the Philosophy of Science*, 27(3):253-271
8. Baetu, T. M. (2012), ‘[Genomic Programs as Mechanism Schemas: A Non-Reductionist Interpretation](#)’, *British Journal for the Philosophy of Science*, 63(3): 649-671
9. Baetu, T. M. (2012), ‘[Defining Species: A Multi-Level Approach](#)’, *Acta Biotheoretica*, 60(3):239-255
10. Baetu, T. M. (2012), ‘[Filling In the Mechanistic Details: Two-Variable Experiments as Tests for Constitutive Relevance](#)’, *European Journal for Philosophy of Science*, 2(3):337-353
11. Baetu, T. M. (2012), ‘[Emergence, Therefore Antireductionism? A Critique of Emergent Antireductionism](#)’, *Biology and Philosophy*, 27(3):433–448
12. Baetu, T. M. (2012), ‘[Mechanistic Constraints on Evolutionary Outcomes](#)’, *Philosophy of Science*, 79(2): 276-294
13. Baetu, T. M. (2012), ‘[Genes After the Human Genome Project](#)’, *Studies in History and Philosophy of Biological and Biomedical Sciences*, 43(1):191–201
14. Baetu, T. M. (2011), ‘[A Defense of Syntax-Based Gene Concepts in Postgenomics: Genes as Modular Subroutines in the Master Genomic Program](#)’, *Philosophy of Science*, 78(5):712-723
15. Baetu, T. M. (2010), ‘[The Referential Convergence of Gene Concepts Based on Classical and Molecular Analyses](#)’, *International Studies in the Philosophy of Science*, 24(4):411-427
16. Baetu, T. M. and J. Hiscott (2002), ‘[On the trail to apoptosis](#)’, *Cytokine & Growth Factor Reviews*, 13(3):199-207

### *Articles publiés*

17. Baetu, T. M., H. Kwon, S. Sharma, N. Grandvaux, and J. Hiscott (2001), ‘Disruption of NF-κB Signalling Reveals a Novel Role for NF-κB in the Regulation of TNF-Related Apoptosis-Inducing Ligand Expression’, *The Journal of Immunology*, 167(6):3164-3173

### *Livres et chapitres de livres*

18. Baetu, T. M. (à paraître), *Mechanisms in Biology*, Cambridge University Press
19. Baetu, T. M. (2017), ‘Mechanisms in Molecular Biology’, in Stuart Glennan and Phyllis Illari (Eds.), *Routledge Handbook of mechanisms*, New York: Routledge, pp. 308-318
20. P.-L. Germain and T. M. Baetu (2017), ‘Forms of Extrapolation in Molecular Medicine’, in Marco Nathan and Giovanni Boniolo (Eds.), *Foundational Issues in Molecular Medicine*, New York: Routledge, pp. 217-235
21. Baetu, T. M. (2015), ‘When is a Mechanistic Explanation Satisfactory? Reductionism and Antireductionism in the Context of Mechanistic Explanations’, in Gabriel Sandu, Ilie Parvu, and Iulian Toader (Eds.), *Romanian Studies in the History and Philosophy of Science*, Dordrecht: Springer, pp. 255-268
22. Baetu, T. M. (2015), ‘From Mechanisms to Mathematical Models and Back to Mechanisms: Quantitative Mechanistic Explanations’, in C. Malaterre and P.-A. Braillard (Eds.), *Explanation in Biology*, Dordrecht: Springer, pp.345-363
23. Baetu, T. M. (2011), ‘Mechanism Schemas and the Relationship between Biological Theories’, in P. McKay, J. Williamson, F. Russo (Eds.), *Causality in the Sciences*, Oxford: Oxford University Press, pp. 407-424
24. Baetu, T. M. (2002) *Războiul Ideilor*, with an introduction by Dr. Mircea Itu from the Institute of Philosophy of the Romanian Academy, Brașov: Oriental Latin (en roumain)

### *Comptes rendus*

25. Baetu, T. M. (à paraître), *The Mechanical World: The Metaphysical Commitments of the New Mechanistic Approach*, by Krickel, Beate, *History and Philosophy of the Life Sciences*
26. Baetu, T. M. (2015), *In Search of Mechanisms: Discoveries across the Life Sciences*, by Craver, Carl F. and Lindley Darden, *History and Philosophy of the Life Sciences*, 36(3): 459-461
27. Baetu, T. M., A.-S. Barwich, D. Brooks, S. Dutreuil, and P.-L. Germain. (2013), ‘Model thinking in the Life Sciences: Complexity in the Making’, *Biological Theory*, 8(1):121-124
28. Baetu, T. M. (2012), *Transformations of Lamarckism: From Subtle Fluids to Molecular Biology*, Edited by Gissis, S. and Jablonka, E., *History and Philosophy of the Life Sciences*, 34, 507-508

### ***Présentations et conférences***

1. ‘How do mechanisms and phenomena relate to one another?’, Causation and Mechanisms: From Methodology to Metaphysics Workshop, University of Copenhagen, Copenhagen, Denmark, 2018 (présentation invitée)
2. ‘Extrapolation in Biomedical Research’, Centre for Ethics and Law in the Life Sciences, Leibniz Universität Hannover, Hanover, Germany, 2018 (présentation invitée)
3. ‘Multidisciplinary Integration and the Level-Laden Conception of Science’, FraMEPhys Workshop on Explanatory Pluralism, University of Birmingham, Birmingham, UK, 2018 (présentation invitée)
4. ‘Causal Inference in Biomedical Research’, Centre for History and Philosophy of Science, University of Leeds, Leeds, UK (Mai 2018; présentation invitée)
5. ‘The Causal and Identity Models of Reductive Explanation’, British Society for Philosophy of Science Lectures, London School of Economics, London, UK (Mars 2018; présentation invitée)
6. ‘Pain in Psychology, Biology and Medicine. Implications for Eliminativist and Physicalist Accounts’, RIP Lecture at the University of Kent, Canterbury, UK, 2018 (présentation invitée)
7. ‘Comparability, Randomisation and Causal Inference’ Grading Evidence of Mechanisms, University of Kent, Canterbury, UK, 2017 (présentation invitée; keynote speaker)
8. ‘Forms of extrapolation in biomedical research’, European Philosophy of Science Association, Exeter, UK, 2017
9. ‘On Pain Experience, Interdisciplinary Integration and Levels of Description, Explanation and Reality’, Société canadienne d’histoire et de philosophie des sciences, Toronto, Canada, 2017
10. ‘On the Possibility of Crucial Experiments in Biology’, British Society for Philosophy of Science, Cardiff, UK, 2016
11. ‘Extrapolations in Biology’, Philosophy of Biology in the UK, Bristol, UK, 2016 (présentation invitée; keynote speaker)
12. ‘From interventions to mechanistic explanations: disentangling the relationship between causal dependence and productive mechanism’, Centre interuniversitaire de recherche sur la science et la technologie, Université du Québec à Montréal, Montréal, Canada, 2015 (présentation invitée)
13. ‘The Completeness of Mechanistic Explanations’, Philosophy of Science Association, Chicago, IL, 2014
14. ‘Evidence-Based Medicine and the Norms of Mechanistic Explanation’, UNISINOS Workshop Series, São Leopoldo, Brazil, 2014 (présentation invitée)

### **Présentations et conférences**

15. ‘Models and the Mosaic of Scientific Knowledge’, XIV Reunião Acadêmica da Biologia Unisinos, São Leopoldo, Brazil, 2014 (présentation invitée)
16. ‘Reductionism and Antireductionism in Mechanistic Thinking’, A Associação Nacional de Pós-Graduação em Filosofia, Campos do Jordão, Brazil, 2014
17. ‘When Is a Mechanistic Explanation Complete?’, PhilEAs Talks Invitation (University of Geneva), Geneva, Switzerland, 2013 (présentation invitée)
18. ‘The Norms of Mechanistic Explanation’, International Society for the History, Philosophy, and Social Studies of Biology, Montpellier, France, 2013
19. ‘Models as Local Frameworks for Integrating Knowledge about Phenomena’, Philosophy & Theory in Biology Symposium, New York, NY, 2013
20. ‘Explanatory Pluralism in Systems Biology’, University of Bucharest, Bucharest, Romania, 2013 (présentation invitée)
21. ‘Quantitative Mechanistic Explanations’, Second European Advanced Seminar in the Philosophy of the Life Sciences: *In vivo, in vitro, in silico*: Models in the Life Sciences, Geneva, Switzerland, 2012 (présentation invitée)
22. ‘A Multi-Level Approach to Defining Species’, Australasian Association of Philosophy, Wollongong, Australia, 2012
23. ‘Elucidating the Quantitative-Dynamic Aspects of Molecular Mechanisms’, Models and Simulations 5, Helsinki, Finland, 2012
24. ‘The Integration of Mathematical Modeling in Molecular Biology’, European Meetings on Cybernetics and Systems Research, Vienna, Austria, 2012 (présentation invitée)
25. ‘Filling In the Mechanistic Details: Two-Variable Experiments as Tests for Constitutive Relevance’, PSX2-2nd International Workshop on the Philosophy of Scientific Experimentation, Konstanz, Germany, 2011
26. ‘Mechanistic Constraints on Evolutionary Outcomes’, International Society for the History, Philosophy, and Social Studies of Biology, Salt Lake City, UT, 2011
27. ‘How Contingent Is Evolution?’, Society for Philosophy of Science in Practice (SPSP), Third Biennial Conference, Exeter, United Kingdom, 2011
28. ‘Contemporary Concepts of the Gene’, MBL-ASU History of Biology Seminar, Woods Hole, MA, 2011
29. ‘The referential convergence of gene concepts based on classical and molecular analyses’, Integrated History & Philosophy of Science, Bloomington, IN, 2010

### ***Présentations et conférences***

30. ‘A defense of syntax-based gene concepts in postgenomics: Genes as modular subroutines in the master genomic program’, Philosophy of Science Association, Montreal, Canada, 2010
31. ‘Genomic Programs as Mechanisms Schemas’, Philosophy of Biology @ Madison Workshop, Madison, WI, 2010
32. ‘Gene Concepts’, Southern History of Science, Technology, and Medicine Conference, Starkville, MS, 2010
33. ‘Co-Referential Models and the Cumulativity of Scientific Knowledge’, Société canadienne d’histoire et de philosophie des sciences, Canada, 2007
34. ‘Le traitement déductif des idéalisations’, Congrès de l’ACFAS, Sherbrooke, Canada, 2006
35. ‘Confirmation Strategies in Experimental Biology’, 3rd Annual Inter-University Colloquium, Montreal, Canada, 2006
36. ‘Modèles et théories en biologie moléculaire’, Association francophone pour le savoir, Sherbrooke, Canada, 2005
37. ‘The Up-Regulation of TRAIL Expression in Activated T-cells is Mediated via NF-κB Signalling’, Third Joint Meeting of the ICS/ISICR, Amsterdam, The Netherlands, 2000

### ***Service pour la profession et l'université***

Évaluateur externe:

- *Biology and Philosophy, Biological Theory, British Journal for Philosophy of Science, Erkenntnis, Filosofia UNISINOS, History and Philosophy of the Life Sciences*, Oxford University Press, *Philosophy & Technology, Philosophy Compass, Philosophy of Science, Science in Context, Studies in History and Philosophy of Biological and Biomedical Sciences, Synthese, Theoria*
- Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO) (2017)
- British Society for the Philosophy of Science Committee (2016–présent)

Higher Education Academy Accreditation

Organisation des séminaires dans le département de philosophie (University of Bristol, 2015–présent)

***Associations professionnelles***

Société canadienne d'histoire et de philosophie des sciences

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

Philosophy of Science Association

European Philosophy of Science Association

British Society for the Philosophy of Science

***Langues parlées et écrites***

Français, anglais, portugais et roumain