



CV Thomas Pradeu (May 2022)

Name: PRADEU, Thomas
 Researcher unique identifier (ORCID): 0000-0002-6590-3281
 Date of birth: January 8, 1978. Nationality: French
 URL for website: <https://immunoconcept.cnrs.fr/people/thomas-pradeu/>

Areas of specialization: Philosophy of Biology; Conceptual & theoretical approaches in the biological sciences, especially immunology, cancer biology, developmental biology, and microbiome studies.

Areas of competence: Philosophy of Science, including Metaphysics of Science; Philosophy of Medicine; History of Biology and Medicine.

EDUCATION

2004-2007 **PhD in Philosophy**, Paris I Panthéon-Sorbonne University: “*Immunology and the Definition of Biological Identity*”, co-supervised by Jean Gayon (Prof. of Philosophy, Pantheon-Sorbonne Univ.) & Edgardo Carosella (Prof. of Immunology, Paris-Diderot Univ.)

2003-2004 **Visiting Fellow at Harvard University**, Cambridge (MA), USA.

2003 **Master in Philosophy**, Paris-Diderot University.
Diploma in Immunology, Master of Biology, Ecole Normale Supérieure of Paris.

2002 **Agregation of Philosophy** (highly competitive exam for the recruitment of French secondary school teachers). (National rank: 10th).

2001 **Philosophy Master’s Degree**, Pantheon-Sorbonne University.

1999-2003 **Ecole Normale Supérieure of Paris** (National rank: 9th), Department of Philosophy.

CURRENT POSITION

Since 2017 **CNRS Research Professor**, affiliated with the **Bordeaux immunology lab** (ImmunoConcept, UMR5164, CNRS & University of Bordeaux).

Since 2016 **Coordinator of the International network for Philosophy in Biology and Medicine** (“*PhilInBioMed*”) (<https://www.philinbiomed.org/>).

Since 2014 **PI of the Conceptual Biology & Medicine Team** in the Bordeaux immunology lab.

Since 2008 **Affiliated member, Institut d’histoire et de philosophie des sciences et des techniques** (IHPST), CNRS & Paris I Pantheon-Sorbonne University, Paris, France.

PREVIOUS POSITIONS

2014-2017 **CNRS Junior Researcher**.

2008-2014 **Associate Professor, Philosophy Department**, Paris-Sorbonne University, Paris, France.

GRANTS

2022-2025 **Moore Foundation Grant** on theoretical approaches to the microbiome (€600,000)

2021-2021 **CASBS** (Center for Advanced Study in the Behavioral Sciences) **Fellow**, Stanford University, USA.

2015-2020 **PI ERC-funded project IDEM** (*Immunity, Development, and the Microbiota*) (€1.5M)

2011-2014 **Junior member of Institut universitaire de France (IUF)** (highly competitive 5-year position)

PRIZES AND AWARDS

2015 **Lakatos Award** for my book *The Limits of the Self* (£10,000). (Awarded in 2017).

2008 **Award for best PhD thesis in the humanities**, Chancellerie des Universités de Paris (€10,000).

FELLOWSHIPS



2003-2004 Fellowship for fully funded Visiting Fellow position, Harvard University.

SUPERVISION OF GRADUATE STUDENTS

- 2015-2021 Supervision of 7 postdocs: 6 philosophers of science, funded by my ERC Starting Grant project IDEM; 1 biologist, funded by the University of Bordeaux.
- 2015-2021 Supervision of 5 PhD students.
- 2015-2020 Participation in 7 PhD defense committees (5 in philosophy, 1 in biology, 1 in medicine).

TEACHING ACTIVITIES

- Since 2014 Courses in Immunology, Biology, and Philosophy of science (approximately 20 hours/year, mostly at the Graduate Level).
- 2008-2014 As an Associate Professor at Philosophy Department, Paris-Sorbonne University: Courses in Philosophy of Biology; Philosophy of Science; Epistemology (192 hours/ year).

ORGANISATION OF SCIENTIFIC MEETINGS (short selection)

- 2018, 2019 Main organizer of the meetings of the international network of Philosophy in Biology and Medicine (PhilInBioMed)
- 2018-2022 Main organizer of four Philosophy of Cancer Biology Workshops, Bordeaux, France.
- 2016-2019 Co-main organizer of the three workshops of my ERC-funded project IDEM.

INSTITUTIONAL RESPONSIBILITIES

- Since 2019 Member of the Scientific Board of CNRS Life Science Department.
- 2018-2019 Chair of European Philosophy of Science Association (EPSA) Nomination committee.
- Since 2014 Member of several committees, at the International Society for History, Philosophy and Social Studies of Biology (ISHPSSB).
- Since 2014 Vice-President of the Société de Philosophie des Sciences (SPS), in charge of the dialogue with scientific societies.

EDITORIAL & REVIEWING ACTIVITIES

- Since 2017: Associate Editor, *Biology & Philosophy*.
- Since 2017: Member of Editorial Board, *European Journal for Philosophy of Science*.
- 2015-2016: Associate Editor, *European Journal for Philosophy of Science*.
- Since 2015: Associate Editor, Vienna Series in Theoretical Biology (MIT Press).

MAIN PUBLICATIONS (Complete list available [here](#))

1. Books

- Gayon J. & Pradeu T. (eds., 2021), *Textes Clés en Philosophie de la Biologie*. Tome 1 : Explication biologique, hérédité, développement. Tome 2 : Évolution, environnement, diversité biologique. Paris, Vrin. (Key readings in Philosophy of Biology, translated into French, with topic overviews).
- Loison L. & Pradeu T. (eds. 2021), *La Biologie au défi de l'histoire : Mélanges offerts à Michel Morange*. Paris, Éditions Matériologiques.
- Pradeu T (2019) *Philosophy of Immunology: Understanding the Central Role of the Immune System in Today's Biology and Medicine*. Cambridge Elements, Cambridge University Press.
- Pradeu T (2012) *The Limits of the Self: Immunology and Biological Identity*. New York: Oxford University Press. Paperback (2019). This book received the 2015 Lakatos Award.
- Guay A & Pradeu T (eds., (2016) *Individuals Across the Sciences*. NY: Oxford Univ. Press. #96
- Minelli A & Pradeu T (eds., 2014) *Towards a Theory of Development*. Oxford: Oxford Univ. Press.
- Barberousse A, Morange M & Pradeu T (eds., 2009) *Mapping the Future of Biology: Evolving Concepts and Theories*. Dordrecht: Springer.

2. Articles

- Sepich-Poore GD, Guccione C, Laplane L, Pradeu T, Curtius K, Knight R (2022), Cancer's second genome: Microbial cancer diagnostics and redefining clonal evolution as a multispecies process. *BioEssays*.



- Laurent P, Lapoirie J, Leleu D, Levionnois E, Grenier C, Jurado-Mestre B, Lazaro E, Duffau P, Richez C, Seneschal J, Pellegrin J-L, Constans J, Schaevebeke T, Douchet I, Duluc D, Pradeu T, Chizzolini C, Blanco P, Truchetet M-E, Contin-Bordes, C. (2022), Interleukin-1 β -Activated Microvascular Endothelial Cells Promote DC-SIGN+ Alternative Macrophages Associated with Skin Fibrosis in Systemic Sclerosis. *Arthritis & Rheumatology*.
- Sholl J, Sepich-Poore GD, Knight R, Pradeu T (2022), Redrawing therapeutic boundaries: microbiota and cancer. *Trends in Cancer* 8(2), 87-97.
- Pradeu T., Lemoine M., Khelifaoui M., Gingras Y. (2021), Philosophy in Science: Can philosophers of science permeate through science and produce scientific knowledge? *The British Journal for the Philosophy of Science*.
- Khelifaoui M, Gingras Y, Lemoine M, Pradeu T (2021), The visibility of philosophy of science in the sciences, 1980–2018. *Synthese*.
- Kaminski H., Lemoine M., Pradeu T. (2021), Immunological exhaustion: How to make a disparate concept operational?, *PLoS Pathogens*.
- Laurent P... Pradeu T... Truchetet ME (2021), TGF β promotes low IL10-producing ILC2 with profibrotic ability involved in skin fibrosis in systemic sclerosis, *Annals of the Rheumatic Diseases* 80, 1594-1603.
- Guay A. & Pradeu T. (2020), Right out of the box: How to situate metaphysics of science in relation to other metaphysical approaches. *Synthese*, 197, 1847-66.
- Paludan S.R., Pradeu T., Masters S., Mogensen T. (2020), Constitutive immune mechanisms: mediators of host defence and immune regulation. *Nature Reviews Immunology* 21, 137-150.
- Pradeu T. (2019), Philosophy of Biology: Immunology and individuality. *eLife* 8:e47384.
- Rondeau E., Larmonier N., Pradeu T. and Bikfalvi A. [co-senior authors] (2019) Philosophy of biology: Characterizing causality in cancer. *eLife* 8:e53755.
- Laplane L., Duluc D., Bikfalvi A, Larmonier N., and Pradeu T. (2019), Beyond the tumour microenvironment. *International Journal of Cancer* 145(10), 2611-8.
- Laplane L., Mantovani P., Adolphs R., Chang H., Mantovani A., McFall-Ngai M., Rovelli C., Sober E., & Pradeu T. (2019), Why science needs philosophy. *Proceedings of the National Academy of the Sciences USA (PNAS)* 116 (10) 3948-3952.
- Laplane L., Duluc D., Larmonier N., Pradeu T. & Bikfalvi A. [co-senior authors] (2018), The Multiple Layers of the Tumor Environment. *Trends in Cancer* 4(12), 802-809.
- Lemoine M. & Pradeu T. (2018), Dissecting the meanings of 'Physiology' to assess the vitality of the discipline. *Physiology* 33(4), 236-245.
- Pradeu T. & Du Pasquier L. (2018), Immunological memory: What's in a name? *Immunological Reviews* 283(1), 7-20.
- Pradeu T & Moreau JF (2019) CRISPR-Cas immunity: Beyond nonself and defence. *Biology & Philosophy* 34(6).
- Truchetet M-E & Pradeu T (2018) Re-thinking our understanding of immunity: Robustness in the tissue reconstruction system. *Seminars in Immunology* 36, 45-55
- Eberl G, Pradeu T (2018) Towards a General Theory of Immunity? *Trends in Immunology* 39, 261-3.
- Pradeu T (2017) Thirty years of *Biology & Philosophy*: Philosophy of which biology? *Biology & Philosophy* 32(2), 149-167.
- Laurent P, ... Truchetet M-E, Pradeu T (co-senior authors) (2017) Immune-Mediated Repair: A Matter of Plasticity. *Frontiers in Immunology* 8, 454.
- Chiu L, Bazin T, Truchetet M-E, Schaevebeke T, Delhaes L & Pradeu T (2017) Protective Microbiota: From Localized to Long-Reaching Co-Immunity. *Frontiers in Immunology* 8, 1678.
- Pradeu T (2016) The many faces of biological individuality. *Biology & Philosophy* 31(6), 761-773.
- Pradeu T (2016) Organisms or biological individuals? Combining physiological and evolutionary individuality. *Biology & Philosophy* 31(6), 797-817.
- Pradeu T & Vivier E (2016) The Discontinuity Theory of Immunity. *Science Immunology* 1(1).
- Pradeu T, Kostyrka G, & Dupré J (2016) Understanding viruses: Philosophical investigations, *Studies in History and Philosophy of Biological and Biomedical Sciences* 59, 57-63.
- Pradeu T (2016) Mutualistic viruses and the heteronomy of life, *Studies in History and Philosophy of Biological and Biomedical Sciences* 59, 80–88.
- Pradeu T, Laplane L, Prévot K, Hoquet T, Reynaud V, Fusco G, Minelli A, Orgogozo V, and Vervoort M (2016) Defining 'development', *Current Topics in Developmental Biology*, 117, 171-183.
- Pradeu T, Jaeger S, Vivier E (2013) The Speed of Change: Towards a Discontinuity Theory of Immunity? *Nature Reviews Immunology* 13, 764–769.
- Pradeu T, Cooper EL (2012) The Danger Theory: 20 Years Later. *Frontiers Immunol.* 3, 287.
- Pradeu T (2011) A Mixed Self: Symbiosis in Development. *Biological Theory* 6(1), 80-88.
- Pradeu T (2010) What is an organism? An immunological answer. *History and Philosophy of the Life Sciences* 32, 247-268.



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- Carosella ED, Pradeu T (2006) Transplantation and Identity: A Dangerous Split. *The Lancet* 368(9531), 183-184.
- Pradeu T, Carosella ED (2006) On the definition of a criterion of immunogenicity. *Proceedings of the National Academy of the Sciences USA*, 103(47), 17858-61.
- Pradeu T, Carosella ED (2006) The Self Model and the Conception of Biological Identity in Immunology. *Biology and Philosophy* 21(2), 235-252.

3. Edition of special issues (S.I.)

- Ferner A & Pradeu T (eds., (2017) Guest ed., S.I. “Ontologies of Living Beings”, *Philosophy, Theory, and Practice in Biology*, Volume 9.
- Pradeu T (ed., 2016) Guest ed., S.I. “Biological Individuality”. *Biology & Philosophy* 31(6), 761-930.
- Pradeu T., Kostyrka G., & Dupré J. (eds., 2016) S.I. “Understanding Viruses: Philosophical Investigations”, *Studies in History and Philosophy of Biological and Biomedical Sciences* 59, 57-153.