

Patrick Landon Ferree

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PROFILE

Patrick is a doctoral student at Medical Museion and the Novo Nordisk Foundation Center for Basic Metabolic Research. He has a broad background in the humanities and natural sciences (including a PhD in developmental biology). Now he is training as a philosopher and ethnographer of technoscience and biomedicine. His project examines the epistemology, methodology, and sociocultural dimensions of single-cell biology. *Research areas:* Philosophy of Science (esp. Biomedical Sciences); Science and Technology Studies (STS).

EDUCATION

University of Copenhagen PhD Student in Medicine, Culture, and Society	Copenhagen, DK in Progress
Duke University School of Medicine PhD in Developmental Biology – Certificate in Cell and Molecular Biology • Dissertation: <i>Temporal regulation of cell divisions in the embryo of <i>Drosophila melanogaster</i></i> • Committee: Stefano Di Talia, Michel Bagnat, Danny Lew, Bernard Mathey-Prevot, Nick Buchler	Durham, NC, USA Apr 2022
University of California, San Diego BA in Philosophy, BS in Chemistry, Minor in Political Science, <i>magna cum laude</i>	La Jolla, CA, USA Jun 2012

EXPERIENCE

University of Copenhagen PhD Student, Advisors: Karin Tybjerg & Sara Green • Affiliation: Medical Museion, Department of Public Health, Faculty of Medical and Health Sciences • Affiliation: Novo Nordisk Foundation Center for Basic Metabolic Research (CBMR) • Affiliation: Center for Medical Science and Technology Studies (MeST) • Research: Philosophy and social studies of single-cell biology and cell atlases	Copenhagen, DK Mar 2024 - Present
The National Research Centre for the Working Environment Postdoctoral Researcher, Advisor: Keld Alstrup Jensen • Research: Occupational exposure to airborne particles	Copenhagen, DK Jun 2022 - Mar 2024
Copenhagen Institute for Futures Studies Intern, Advisor: Bogi Eliassen • Research: Futures of healthcare and biomedicine	Copenhagen, DK Jan - Jun 2022
Duke University School of Medicine PhD Student, Advisor: Stefano Di Talia • Affiliation: Department of Cell Biology • Research: Temporal patterning of mitosis in fly embryos	Durham, NC, USA Sep 2014 - Apr 2022
University of Texas, El Paso Research Technician, Advisor: Laura O'Dell • Affiliation: Department of Psychology • Research: Neuroscience of drug addiction in rats	El Paso, TX, USA Jan 2013 - Sep 2014
Scripps Institute of Oceanography Research Assistant, Advisor: Lynn Russell • Research: Chemistry and physics of atmospheric aerosols	La Jolla, CA, USA Jan - Sep 2012

PUBLICATIONS

- P. L. Ferree**, M. Polat, J. K. Nøjgaard, K. A. Jensen, “Airborne particulate matter and diesel engine exhaust on infrastructure construction sites in the Copenhagen metropolitan area”, *Annals of Work Exposures and Health*, Aug. 2024, doi.org/10.1093/annweh/wxae062 (**Article**).
- P. L. Ferree**, M. Xing, J.Q. Zhang, S. Di Talia, “Structure-function analysis of Cdc25 Twine degradation at the *Drosophila* maternal-to-zygotic transition”, *Fly*, vol. 16, no. 1, pp. 111–117, Dec. 2022, ISSN: 1933-6934 (**Article**).
- P. L. Ferree**, S. Di Talia, “Developmental Biology: Embryos Need to Control Their Nucleotides Just Right”, *Current Biology*, vol. 29, no. 7, R252–R254, Apr. 2019, ISSN: 09609822 (**Preview**).
- P. L. Ferree**, S. Di Talia, “Chemical Waves in Embryonic Cell Cycles”, *Israel Journal of Chemistry*, vol. 58, no. 6, pp. 714–721, 2018, ISSN: 18695868 (**Review**).
- P. L. Ferree**, S. Di Talia, “For Embryos, Mother Can Only Take You So Far”, *Developmental Cell*, vol. 42, no. 3, pp. 203–205, 2017, ISSN: 18781551 (**Preview**).
- P. L. Ferree**, V. Deneke, S. Di Talia, “Measuring time during early embryonic development”, *Seminars in Cell and Developmental Biology*, 2016, ISSN: 10849521 (**Review**).
- L. M. Carcoba, J. E. Orfila, L. E. Natividad, O. V. Torres, J. A. Pipkin, **P. L. Ferree**, E. Castañeda, D. E. Moss, L. E. O’Dell, “Cholinergic transmission during nicotine withdrawal is influenced by age and pre-exposure to nicotine: Implications for teenage smoking”, *Developmental Neuroscience*, vol. 36, no. 3-4, pp. 347–355, 2014, ISSN: 14219859 (**Article**).
- O. V. Torres, J. A. Pipkin, **P. L. Ferree**, L. M. Carcoba, L. E. O’Dell, “Nicotine withdrawal increases stress-associated genes in the nucleus accumbens of female rats in a hormone-dependent manner”, *Nicotine and Tobacco Research*, vol. 17, no. 4, pp. 422–430, 2014, ISSN: 1469994X (**Article**).

MANUSCRIPTS

- P. L. Ferree**, C. Ribalta, A. CØ Jensen, A. Brostrøm, T. Berthing, K. A. Jensen, “Airborne nano/microplastics in the plastics recycling and manufacturing industry” (**Article - In Preparation**).
- P. L. Ferree**, S. Brantley, T. Starr, A. Chao, S. Di Talia, “Activator-accumulation and repressor-depletion time mitosis during *Drosophila* gastrulation” (**Article - In Preparation**).

SELECT TALKS AND POSTER PRESENTATIONS

- P. L. Ferree**, “Technical and epistemic objects in cell-type classification: A study of single-cell sequencing”, Society for Philosophy of Science in Practice (SPSP), Columbia, SC, USA, May 2024 (**Poster**).
- P. L. Ferree**, C. Ribalta, A. Jensen, J. K. Nøjgaard, S. Nielsen, N. Sahlgren, T. Berthing, K. A. Jensen, “Workplace exposure to ultrafine particles, chemicals, and dust during plastic production with recycled plastics”, British Occupational Hygiene Society: Inhaled Particles and NanOEh, Manchester, UK, May 2023 (**Talk**).
- P. L. Ferree**, A. De Simone, S. Di Talia, “An activator-repressor model for improved temporal precision of transcription”, Quantitative Biology (Q-Bio), Oahu, HI, USA, Feb 2019 (**Talk**).
- P. L. Ferree**, C. Bunce, “The Questions of Developmental Biology”, The Society for Developmental Biology (SDB), Boston, MA, USA, Jul 2019 (**Poster**).
- P. L. Ferree**, A. De Simone, S. Di Talia, “An activator-repressor model for improved temporal precision of transcription”, Tissue Self-Organization: Challenging the Systems, Heidelberg, Germany, Mar 2018 (**Poster**).

SELECT SCHOOLS AND WORKSHOPS ATTENDED AS A STUDENT

Diagnosis Conference: Between Knowing and Doing, Medical Museion, Copenhagen, Oct 2024.

European Advanced School for the Philosophy of the Life Sciences, Konrad Lorenz Institute, Austria, Sep 2024.

Summer School on the History of Knowledge, Lund University (LUCK), Sweden, Aug 2024.

Crossing the Disciplinary Boundaries of Physics, Bohr Centennial, Copenhagen, Denmark, Aug 2023.

Workshop on Methods in the Philosophy of Science, University of Vienna, Austria, May 2023.

Summer School on the History of the Life Sciences, Ischia, Italy, Jun 2022.

Winter School on Quantitative Biology, International Center for Theoretical Physics, Trieste, Italy, Dec 2017.

TEACHING

Philosophy of Science for Medical Engineers, University of Copenhagen, Winter 2025 (with Karin Tybjerg). *Lectured and led discussions on:* General Philosophy of Science (including Popper and Kuhn); Philosophy of Big Data; Philosophy of AI; Philosophy of Measurement; Philosophy of Medical Technology; Ethical Theories; Epistemic Injustice; AI Ethics.

Responsible Conduct of Research (RCR), Duke University, Summer 2018 (with faculty from Duke School of Medicine). *Teaching Assistant (TA); led discussions on:* Ethics of Science; Academic Misconduct.

ACADEMIC SOCIETIES

Member, Society for Philosophy of Science in Practice (SPSP), 2023-present.

Member, Society for Social Studies of Science (4S), 2024-present.

Member, International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB), 2024-present.

Member, Philosophy of Science Association (PSA), 2024-present.

SERVICE TO THE COMMUNITY

Member of Editorial Team, Society for Philosophy of Science in Practice Newsletter, 2024-present.

REFERENCES

Karin Tybjerg, PhD

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Sara Green, PhD

Associate Professor, History and Philosophy of Science, University of Copenhagen

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Keld Alstrup Jensen, PhD

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