Patrick Landon Ferree

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RESEARCH AREAS

Philosophy and sociology of the biomedical sciences

EDUCATION

University of Copenhagen Copenhagen, DK PhD Student in Science Studies - Graduate Program in Medicine, Culture, and Society in Progress • Project: Making up cells: A study of single-cell and spatial atlases in the biomedical sciences • Advisors: Karin Tybjerg & Sara Green **Duke University School of Medicine** Durham, NC, USA PhD in Developmental Biology - Graduate Program in Cell and Molecular Biology Apr 2022 • Dissertation: Temporal regulation of cell divisions in the embryo of Drosophila melanogaster • Committee: Stefano Di Talia, Michel Bagnat, Danny Lew, Bernard Mathey-Prevot, Nick Buchler University of California, San Diego La Jolla, CA, USA BA in Philosophy, BS in Chemistry, Minor in Political Science, magna cum laude Jun 2012

CAREER

 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: Ethnography and philosophy of single-cell and spatial biology 	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
 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	La Jolla, CA, USA Jan - Sep 2012

PUBLICATIONS

• Research: Chemistry and physics of atmospheric aerosols

- P. L. Ferree, "Book Review: A History of Genomics across Species, Communities and Projects", New Genetics and Society, 2025 (Invited review essay Forthcoming).
- **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 (Invited review essay).
- 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 (Invited review essay).
- 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, 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, "From clocks to hourglasses: Making time an epistemic object in developmental biology", International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB), Porto, Portugal, July 2025 (Accepted for a Talk).
- 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

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.

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

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

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

SERVICE TO THE COMMUNITY

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

REFERENCES

Karin Tybjerg, PhD

 $\label{eq:associate} Associate\ Professor,\ Medical\ Museion\ and\ CBMR,\ University\ of\ Copenhagen$

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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

Professor, Chemistry and Microbiology, National Research Centre for the Working Environment

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Stefano Di Talia, PhD

Professor, Department of Cell Biology, Duke University Email: stefano.ditalia@duke.edu, Phone: +1 919 684 8079