Patrick Landon Ferree

Medical Museion, Fredericiagade 18, Copenhagen K, Denmark • patrick.ferree@sund.ku.dk • +45 93 86 71 37

Profile

Patrick is a PhD student and researcher at Medical Museion and CBMR. He has a background in philosophy, chemistry, and developmental biology, postdoc experience in exposure science, and is pursuing a PhD in science studies. His thesis work uses qualitative methods (ethnography and interviews) to investigate epistemological and sociocultural dimensions of cell atlases and single-cell methods in the biomedical sciences. *Research areas:* Philosophy of the Biomedical Sciences; Philosophy of Science in Practice; History and Philosophy of Science (&HPS); Science and Technology Studies (STS).

Education

University of Copenhagen — Copenhagen, DK
PhD Student in Science Studies – Program in Medicine, Culture, and Society — in Progress

Duke University School of Medicine — Durham, NC, USA
PhD in Developmental Biology – Certificate 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

Experience

University of Copenhagen — Copenhagen, DK
PhD Student, Advisors: Karin Tybjerg & Sara Green — Mar 2024 - Present
- 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: Sociocultural and epistemological dimensions of technologies in biomedical science

The National Research Centre for the Working Environment — Copenhagen, DK
Postdoctoral Researcher, Advisor: Keld Alstrup Jensen — Jun 2022 - Mar 2024
- Research: Occupational exposure to airborne particles

Copenhagen Institute for Futures Studies — Copenhagen, DK
Intern, Advisor: Bogi Eliasen — Jan - Jun 2022
- Research: Futures of healthcare and biomedicine

Duke University School of Medicine — Durham, NC, USA
PhD Student, Advisor: Stefano Di Talia — Sep 2014 - Apr 2022
- Affiliation: Department of Cell Biology
- Research: Temporal patterning of mitosis in fly embryos

University of Texas, El Paso — El Paso, TX, USA
Research Technician, Advisor: Laura O'Dell — Jan 2013 - Sep 2014
- Affiliation: Department of Psychology
- Research: Neuroscience of drug addiction in rats

Scripps Institute of Oceanography — La Jolla, CA, USA
Research Assistant, Advisor: Lynn Russell — Jan - Sep 2012
- Research: Chemistry and physics of atmospheric aerosols

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 in Progress

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 Biomedical Engineers, University of Copenhagen, Winter 2025 (with Karin Tybjerg).

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.

Member, History of Science Society (HSS), 2024-present.

Service to the Community

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

References

Karin Tybjerg, PhD
Associate Professor, Medical Museion and CBMR, University of Copenhagen
Email: karin.tybjerg@sund.ku.dk, Phone: +45 35 32 38 03

Sara Green, PhD
Associate Professor, History and Philosophy of Science, University of Copenhagen
Email: sara.green@ind.ku.dk, Phone: +45 35 33 46 32

Keld Alstrup Jensen, PhD
Professor, Chemistry and Microbiology, National Research Centre for the Working Environment
Email: kaj@nfa.dk, Phone: +45 20 76 47 31

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