

Patrick Landon Ferree

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PROFILE

Patrick Ferree is a PhD student based at Medical Museion (a medical history museum) and the Novo Nordisk Foundation Center for Basic Metabolic Research (CBMR), University of Copenhagen. His research focuses on the role of technology in biomedical knowledge production, particularly in single-cell omics. Before moving to philosophy of science, he double majored in chemistry and philosophy at UC San Diego, completed a PhD in cell biology at Duke University, and worked as a postdoc in exposure science at a national lab in Denmark.

RESEARCH AREAS

Philosophy of Science
Science Studies
History of Biology and Medicine

EDUCATION

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| University of Copenhagen PhD Student in Medicine, Culture, and Society | Copenhagen, DK in Progress |
| Duke University School of Medicine PhD in Cell Biology, Certificate in Cell and Molecular Biology | Durham, NC, USA Apr 2022 |
| University of California, San Diego BS in Chemistry, BA in Philosophy, Minor in Political Science, <i>magna cum laude</i> | La Jolla, CA, USA Jun 2012 |

EXPERIENCE

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| Technical University of Munich Visiting PhD Student, Host: Sabina Leonelli | Munich, DE Starting Mar 2026 |
| University of Copenhagen PhD Student, Advisor: Karin Tybjerg; Co-advisor: Sara Green | Copenhagen, DK Mar 2024 - Present |
| The National Research Centre for the Working Environment Postdoctoral Researcher, Advisor: Keld Alstrup Jensen | Copenhagen, DK Jun 2022 - Mar 2024 |
| Duke University School of Medicine PhD Student, Advisor: Stefano Di Talia | Durham, NC, USA Sep 2014 - Apr 2022 |

• Affiliation: Chair of Philosophy and History of Science and Technology
• Research: Philosophy and social studies of single-cell biology

• Affiliation: Medical Museion, Center for Medical STS (MeST), Department of Public Health
• Affiliation: Novo Nordisk Foundation Center for Basic Metabolic Research (CBMR)
• Member: DIPHSY Research Group, Section for HPS, Department of Science Education
• Research: Philosophy and social studies of single-cell biology
• Methods: Ethnography (participant observation and interviews)

• Research: Occupational exposure to airborne particles
• Methods: Instrumental analysis, field campaigns, chamber studies

• Affiliation: Department of Cell Biology
• Methods: Quantitative *in vivo* confocal microscopy, computational image analysis
• Dissertation: *Temporal regulation of cell divisions in the embryo of Drosophila melanogaster*
• Committee: Michel Bagnat, Danny Lew, Bernard Mathey-Prevot, Nick Buchler

University of Texas, El Paso

Research Technician, Advisor: Laura O'Dell

- Affiliation: Department of Psychology
- Research: Neuroscience of drug addiction in rats
- Methods: Survival surgeries, behavioral tests, qPCR

El Paso, TX, USA

Jan 2013 - Sep 2014

Scripps Institute of Oceanography

Research Assistant, Advisor: Lynn Russell

- Research: Chemistry and physics of atmospheric aerosols
- Methods: IR spectroscopy

La Jolla, CA, USA

Jan - Sep 2012

PAPERS

Articles

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*, Volume 68, Issue 8, Oct. 2024, Pages 791–803, <https://doi.org/10.1093/annweh/wxa062>.

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.

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.

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.

Reviews

P. L. Ferree, “A History of Genomics Across Species, Communities and Projects”, *New Genetics and Society*, 44 (1), e2500749, May 2025, <https://doi.org/10.1080/14636778.2025.2500749> (**Book review**).

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 (**Commentary**).

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 (**Commentary**).

P. L. Ferree, V. Deneke, S. Di Talia, “Measuring time during early embryonic development”, *Seminars in Cell and Developmental Biology*, 2016, ISSN: 10849521 (**Review**).

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 - Draft available upon request**).

PRESENTATIONS

Talks

P. L. Ferree, “From clocks to hourglasses: Making time an epistemic object in developmental biology”, part of the organized symposium: *Time in Developmental Biology*, International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB), Porto, Portugal, July 2025.

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.

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.

Posters

P. L. Ferree, “What is science studies?”, MAPS Retreat, Snekkerten, Denmark, Nov 2025.

P. L. Ferree, “An ethnographic and philosophical study of single-cell biology”, International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB), Porto, Portugal, July 2025.

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.

P. L. Ferree, C. Bunce, “The Questions of Developmental Biology” (a philosophy of science poster for scientists), The Society for Developmental Biology (SDB), Boston, MA, USA, Jul 2019.

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.

TEACHING

Medicine in Context – Histories and Cultures of Biomedical Science (PhD course) Copenhagen, DK
Lecturer, Lead: Adam Bencard, University of Copenhagen 2025 (1x)

- Topics: History, philosophy, and ethics of animal models of human disease

Philosophy of Science for Medical Engineers (BA course) Copenhagen, DK
Lecturer, Lead: Karin Tybjerg, University of Copenhagen 2025-2026 (2x)

- Topics: History, philosophy, and ethics of medical technology and data

Creative Processes for Academic Writing (PhD course) Copenhagen, DK
Lecturer, Lead: Louise Whiteley, University of Copenhagen 2024-2025 (3x)

- Topic: Writing across disciplines

Responsible Conduct of Research (PhD course) Durham, NC, USA
Teaching Assistant, Lead: School of Medicine Faculty, Duke University 2018 (1x)

- Topic: Ethics of science

FACILITATION

C. Salkovskis, **P. L. Ferree**, “What makes science happen? Research Culture at CBMR” (We led an interactive workshop on research culture for about 80 scientists). MAPS Retreat, Snekkerten, Denmark, Nov 2025.

SELECT SCHOOL AND WORKSHOP PARTICIPATION

Summer School on “Narratives of Disruption and Continuity in Science, Technology, and Society”, part of the DFG Research Training Group: Transformations of Science and Technology since 1800, Wuppertal, Germany, Sep 2025.

Summer School for Philosophy in Biology and Medicine (PhilInBioMed), University of Bordeaux, France, Jun 2025.

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.

INTERVIEWS

“Methods in the Philosophy of Science: Interview with Sophie Veigl and Adrian Currie”, *SPSP Newsletter*, 24, Nov 2025.

“Practices of Classification in Conservation Science: Interview with Joeri Witteveen”, *SPSP Newsletter*, 23, Jun 2025.

“Practices of Validation in the Biomedical Sciences: Interview with Lara Keuck”, *SPSP Newsletter*, 22, Nov 2024, (with Stefano Canali).

PUBLIC ENGAGEMENT

Measure Me (I contributed research to a museum exhibition). Medical Museion, Copenhagen, Denmark, Nov 2025.

“Duke Research Cafe: Encoding Information in Waves and Patterns” (I presented my work on developmental biology for a popular audience). *Moogfest: Music, Art, and Technology*, Durham, NC, USA, May 2018.

SERVICES TO THE COMMUNITY

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

Board Member, Metabolic Research Association of Postdocs and Students (MAPS) at CBMR, 2024-present.

Reviewer, *European Journal for Philosophy of Science*

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, Danish Association for Science and Technology Studies (DASTS), 2024-present.

Member, Society for the Study of Measurement (SSM), 2024-present.

REFERENCES

Karin Tybjerg, PhD

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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