# Patrick Landon Ferree

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# Profile

Patrick is a PhD student working in the fields of sociology of biomedicine; science and technology studies; and philosophy of science in practice. 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 project uses ethnographic methods to investigate social, cultural, and epistemological dimensions of single-cell omics platforms in biomedical research.

# **EDUCATION**

University of Copenhagen

PhD Student in Science Studies – Program in Medicine, Culture, and Society  • Tentative Project: Making up cells: Single-cell biology and the platforms that facilitate it  • Advisors: Karin Tybjerg & Sara Green  Duke University School of Medicine  PhD in Developmental Biology – Certificate in Cell and Molecular Biology  • 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  BA in Philosophy, BS in Chemistry, Minor in Political Science, magna cum laude  EXPERIENCE	Durham, NC, USA Apr 2022  La Jolla, CA, USA Jun 2012		
		<ul> <li>University of Copenhagen</li> <li>PhD Student, Advisors: Karin Tybjerg &amp; Sara Green</li> <li>Affiliation: Medical Museion, Department of Public Health</li> <li>Affiliation: Center for Medical Science and Technology Studies (MeST)</li> <li>Affiliation: Novo Nordisk Foundation Center for Basic Metabolic Research (CBMR)</li> <li>Guest: Section for History and Philosophy of Science, Department of Science Education</li> <li>Research: Social and epistemic roles of technology platforms in the biomedical sciences</li> </ul>	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 Eliasen • Research: Futures of healthcare and biomedicine	Copenhagen, DK Jan - Jun 2022
<ul> <li>Duke University School of Medicine</li> <li>PhD Student, Advisor: Stefano Di Talia</li> <li>Affiliation: Department of Cell Biology</li> <li>Research: Temporal patterning of mitosis in fly embryos</li> </ul>	Durham, NC, USA Sep 2014 - Apr 2022		
<ul> <li>University of Texas, El Paso</li> <li>Research Technician, Advisor: Laura O'Dell</li> <li>Affiliation: Department of Psychology</li> <li>Research: Neuroscience of drug addiction in rats</li> </ul>	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		

Copenhagen, DK

# **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

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.

# ACADEMIC SOCIETIES

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

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

Member, Philosophy of Science Association, 2024-present.

Member, History of Science Society, 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

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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

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