

# Patrick Landon Ferree

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## AREAS OF SPECIALIZATION

Philosophy and Social Studies of the Biomedical Sciences

## AREAS OF COMPETENCE

Philosophy of Technology

## EDUCATION

### University of Copenhagen

PhD Student in Philosophy of Science – Graduate Program in Medicine, Culture, and Society

- Project: *Making up cells: Towards an epistemology of single-cell and spatial atlases in biomedical research*
- Advisors: Karin Tybjerg & Sara Green

Copenhagen, DK

in Progress

### Duke University School of Medicine

PhD in Developmental Biology – Graduate Program 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

Durham, NC, USA

Apr 2022

### University of California, San Diego

BA in Philosophy, BS in Chemistry, Minor in Political Science, *magna cum laude*

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 ethnography 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

### 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

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- 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

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- 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

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- 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

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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

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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

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*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

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

## REFERENCES

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### **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**

Professor, Department of Cell Biology, Duke University

Email: stefano.ditalia@duke.edu, Phone: +1 919 684 8079