

# Patrick Landon Ferree, Ph.D.

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## RESEARCH INTERESTS

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### Areas of Specialization

Philosophy, Sociology, and History of Biomedical Sciences • Science and Technology Studies

### Areas of Competence

History of Philosophy of Science • Epistemology • Social and Political Theory • Bioethics

## EDUCATION

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### University of Copenhagen

Ph.D. in Science Studies (**in Progress**)

- Project: Technological platforms as hubs of interdisciplinarity in biomedical science
- Advisor: Karin Tybjerg

Copenhagen, DK

Starting Mar 2024

### Duke University School of Medicine

Ph.D. in Cell 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

B.A. in Philosophy, B.S. in Chemistry, Minor in Political Science, *magna cum laude*

La Jolla, CA, USA

Jun 2012

## EXPERIENCE

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### University of Copenhagen

Graduate Student Researcher, Advisor: Karin Tybjerg, Ph.D.

- Affiliation: Medical Museion, Department of Public Health, Faculty of Health and Medical Sciences
- Affiliation: Novo Nordisk Foundation Centre for Basic Metabolic Research
- Affiliation: Programme in Medicine, Culture, and Society; Programme in Metabolic Science in Culture
- Research: Philosophy, sociology, and history of science and medicine

Copenhagen, DK

Starting Mar 2024

### The National Research Centre for the Working Environment

Postdoctoral Researcher, Advisor: Keld Alstrup Jensen, Ph.D.

- Affiliation: Section for Chemistry and Microbiology
- Research: Chemical and physical properties of airborne particles in workplace environments

Copenhagen, DK

Jun 2022 - Mar 2024

### Copenhagen Institute for Futures Studies

Junior Health Associate, Advisor: Bogi Eliassen

- Research: Futures of healthcare and biomedicine

Copenhagen, DK

Jan - Jun 2022

### Duke University School of Medicine

Graduate Student Researcher, Advisor: Stefano Di Talia, Ph.D.

- Affiliation: Department of Cell Biology
- Affiliation: Program in Cell and Molecular Biology
- Research: Cell cycle regulation in the early fly embryo

Durham, NC, USA

Sep 2014 - Apr 2022

### University of Texas, El Paso

Research Technician, Advisor: Laura O'Dell, Ph.D.

- Affiliation: Department of Psychology
- Research: Neuroscience of drug addiction in rats

El Paso, TX, USA

Jan 2013 - Sep 2014

- Affiliation: Aerosol Research Group
- Research: Chemistry and physics of atmospheric aerosols

## MANUSCRIPTS IN PROGRESS

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**P. L. Ferree**, M. Polat, J. K. Nøjgaard, K. A. Jensen, “A study of airborne particulate matter and diesel engine exhaust on infrastructure construction sites in the Copenhagen metropolitan area” (**Submitted**).

**P. L. Ferree**, C. Ribalta, A. CØ 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”.

**P. L. Ferree**, S. Brantley, T. Starr, A. Chao, S. Di Talia, “Activator and repressor dynamics time mitosis during *Drosophila* gastrulation”.

## PUBLICATIONS

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- [1] **P. L. Ferree**, “Temporal regulation of cell divisions in the embryo of *Drosophila melanogaster*”, Ph.D. dissertation, Duke University, 2022.
- [2] **P. L. Ferree**, M. Xing, J. Q. Zhang, and 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.
- [3] **P. L. Ferree** and 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.
- [4] **P. L. Ferree** and S. Di Talia, “Chemical Waves in Embryonic Cell Cycles”, *Israel Journal of Chemistry*, vol. 58, no. 6, pp. 714–721, 2018, ISSN: 18695868.
- [5] **P. L. Ferree** and S. Di Talia, “For Embryos, Mother Can Only Take You So Far”, *Developmental Cell*, vol. 42, no. 3, pp. 203–205, 2017, ISSN: 18781551.
- [6] **P. L. Ferree**, V. E. Deneke, and S. Di Talia, “Measuring time during early embryonic development”, *Seminars in Cell & Developmental Biology*, 2016, ISSN: 10849521.
- [7] L. M. Carcoba, J. E. Orfila, L. A. Natividad, O. V. Torres, J. A. Pipkin, **P. L. Ferree**, E. Castañeda, D. E. Moss, and L. E. O’Dell, “Cholinergic transmission during nicotine withdrawal is influenced by age and pre-exposure to nicotine: Implications for teenage smoking”, *Dev. Neurosci.*, vol. 36, no. 3-4, pp. 347–355, 2014, ISSN: 14219859.
- [8] O. V. Torres, J. A. Pipkin, **P. L. Ferree**, L. M. Carcoba, and 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.

## SELECT TALKS AND POSTER PRESENTATIONS

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**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, July 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, March 2018 (**Poster**).

**P. L. Ferree**, A. Momen-Roknabadi, S. Di Talia, “Precise timing of mitosis during *Drosophila* gastrulation”, Winter School on Quantitative Biology, International Center for Theoretical Physics, Trieste, Italy, Dec. 2017 (**Poster**).

## SELECT SCHOOLS AND WORKSHOPS ATTENDED AS A STUDENT

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Crossing the Disciplinary Boundaries of Physics, Bohr Centennial, Copenhagen, Denmark, August 2023. *Three days of presentations on the history of physics and its impact on other sciences, especially biology.*

Workshop on Methods in the Philosophy of Science, Vienna, Austria, May 2023. *Two days of presentations and discussions on contemporary methods in philosophy of science.*

Summer School on the History of the Life Sciences, Ischia, Italy, June 2022. *One week of presentations and discussions on the theme of kinship and other relations in biology.*

Winter School on Quantitative Biology, International Center for Theoretical Physics, Trieste, Italy, December 2017. *Two weeks of pedagogical lectures, presentations, and discussions between physicists and biologists.*

## REFERENCES

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### **Karin Tybjerg, Ph.D.**

Associate Professor, Medical Museion, University of Copenhagen

Relationship: Ph.D. advisor, Email: karin.tybjerg@sund.ku.dk, Phone: +45 35 32 38 03

### **Keld Alstrup Jensen, Ph.D.**

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

Relationship: Postdoc advisor, Email: kaj@nfa.dk, Phone: +45 20 76 47 31

### **Stefano Di Talia, Ph.D.**

Associate Professor, Department of Cell Biology, Duke University

Relationship: Ph.D. advisor, Email: stefano.ditalia@duke.edu, Phone: +1 919 684 8079

### **Sara Green, Ph.D.**

Associate Professor, Section for History and Philosophy of Science, University of Copenhagen

Email: sara.green@ind.ku.dk, Phone: +45 35 33 46 32

### **Joeri Witteveen, Ph.D.**

Associate Professor, Section for History and Philosophy of Science, University of Copenhagen

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