

Patrick Landon Ferree, Ph.D.

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RESEARCH INTERESTS

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

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

Mar 2024 - present

Duke University

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

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

Mar 2024 - present

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

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

- Affiliation: Department of Cell Biology, School of Medicine
- 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

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

- [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

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

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

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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