

Patrick Landon Ferree, Ph.D.

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ACADEMIC PROFILE

AOS: History and Philosophy of Science, Science Studies, Modern Life and Medical Sciences

AOC: History of Philosophy of Science, 20th-Century Philosophy

Research Interests: History, philosophy, and sociology of research practices in the biomedical sciences; epistemic things and experimental systems; scientific institutions; disciplinarity; the exchange of ideas and practices between physical, computational, and life sciences; the entanglement of pedagogy, practices, and epistemology

EDUCATION

University of Copenhagen

Ph.D. (Starting 1 March 2024) in Science Studies

Copenhagen, DK

Expected 2028

Duke University School of Medicine

Ph.D. in Cell Biology

Durham, NC, USA

April 2022

- 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

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

La Jolla, CA, USA

June 2012

EXPERIENCE

University of Copenhagen

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

Copenhagen, DK

Starting 2024

- Affiliation: Department of Public Health, Medical Museion
- Affiliation: Novo Nordisk Foundation Centre for Basic Metabolic Research
- Research: History, philosophy, and sociology of research practices in the metabolic sciences

The National Research Centre for the Working Environment

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

Copenhagen, DK

June 2022-present

- Affiliation: Section for Chemistry and Microbiology
- Research: Chemistry and physics of airborne particles in workplace environments

Copenhagen Institute for Futures Studies

Junior Health Associate, Advisor: Bogi Eliassen

Copenhagen, DK

January-June 2022

- Research: Futures of healthcare and biomedicine

Duke University School of Medicine

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

Durham, NC, USA

2014-2022

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

University of Texas, El Paso

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

El Paso, TX, USA

2012-2014

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

Scripps Institute of Oceanography

Undergraduate Researcher, Advisor: Lynn Russell, Ph.D.

La Jolla, CA, USA

2011-2012

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

MANUSCRIPTS IN PROGRESS

P. L. Ferree, S. B. Jensen, B. X. Larsen, M. Polat, J. K. Nøjgaard, K. A. Jensen, “A study of airborne particulate matter and diesel engine exhaust on infrastructure construction sites”

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

Keld Alstrup Jensen, Ph.D.

Professor, 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 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 of 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 of History and Philosophy of Science, University of Copenhagen

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