Patrick Landon Ferree

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Lersø Parkallé 105, 2100 Copenhagen, DK

Education

Duke University School of Medicine — Durham, NC, USA
Ph.D. in Cell and Developmental Biology — April 2022
- Dissertation: Temporal regulation of cell divisions in the embryo of *Drosophila melanogaster*

University of California, San Diego — La Jolla, CA, USA
B.S. in Chemistry, B.A. in Philosophy, minor in Political Theory, *magna cum laude* — June 2012

Experience

The National Research Centre for the Working Environment — Copenhagen, DK
Postdoctoral Researcher, Advisor: Keld Alstrup Jensen, Ph.D. — June 2022-present
- aerosol chemistry and exposure science

Copenhagen Institute for Futures Studies — Copenhagen, DK
Junior Health Associate, Supervisor: Bogi Eliasen — January-June 2022
- futures of healthcare and biomedicine

Duke University School of Medicine, Department of Cell Biology — Durham, NC, USA
Graduate Researcher, Advisor: Stefano Di Talia, Ph.D. — 2014-2022
- cell cycle timing mechanisms in animal development

University of Texas, El Paso, Department of Psychology — El Paso, TX, USA
Research Technician, Advisor: Laura O'Dell, Ph.D. — 2012-2014
- neuroscience of drug addiction

Scripps Institute of Oceanography — La Jolla, CA, USA
Undergraduate Researcher, Advisor: Lynn Russell, Ph.D. — 2011-2012
- chemistry and physics of atmospheric aerosols

Manuscripts in progress

A study of airborne particulate matter and diesel engine exhaust on infrastructure construction sites
P. L. Ferree, S. B. Jensen, B. X. Larsen, M. Polat, C. Ribalta, J. K. Nøjgaard, K. A. Jensen
We used specialized instruments to characterize airborne particulate matter on Danish construction sites.

Workplace exposure to ultrafine particles during plastic production with recycled plastics
P. L. Ferree, C. Ribalta, A. CØ Jensen, J. K. Nøjgaard, S. Nielsen, N. Sahlgren, T. Berthing, K. A. Jensen
We used specialized instruments to characterize airborne particulate matter in a plastics factory.

Activatror and repressor dynamics time mitosis during *Drosophila* gastrulation
P. L. Ferree, S. Brantley, T. Starr, A. Chao, S. Di Talia
We used quantitative *in vivo* confocal microscopy to better understand how cells make precise temporal decisions.

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.

Relevant Presentations

British Occupational Hygiene Society: Inhaled Particles and NanOEH — Manchester, UK
Workplace exposure to ultrafine particles during plastic production with recycled plastics (**Talk**) — May 2023
P. L. Ferree, C. Ribalta, A. Jensen, J. K. Nøjgaard, S. Nielsen, N. Sahlgren, T. Berthing, K. A. Jensen

Quantitative Biology (Q-Bio) — Oahu, HI, USA
An activator-repressor model for improved temporal precision of transcription (**Talk**) — February 2019
P.L. Ferree, A. De Simone, S. Di Talia

The Society for Developmental Biology — Boston, MA, USA
The Questions of Developmental Biology (**Poster on the philosophy of developmental biology**) — July 2019
P.L. Ferree & C. Bunce

Tissue Self-Organization: Challenging the Systems — Heidelberg, Germany
An activator-repressor model for improved temporal precision of transcription (**Poster**) — March 2018
P.L. Ferree, A. De Simone, S. Di Talia

Moogfest: Music, Art, and Technology Festival — Durham, NC, USA
Encoding information in waves and patterns (**Talk for a public audience**) — May 2018
P.L. Ferree

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

Relevant Schools and Workshops

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

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

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

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

References

Stefano Di Talia, Ph.D.
Associate Professor of Cell Biology at Duke University

- Relationship: doctoral advisor
- Email: stefano.ditalia@duke.edu
- Phone: +1 919 684 8079

Keld Alstrup Jensen, Ph.D.
Professor in the Section for Chemistry and Microbiology at the National Research Centre for the Working Environment

- Relationship: current postdoc advisor
- Email: kaj@nfa.dk
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Sara Green, Ph.D.
Associate Professor in the Section for History and Philosophy of Science at the University of Copenehagen

- Relationship: Can attest to my participation in the philosophy of science community in Copenhagen.
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Joeri Witteveen, Ph.D.
Associate Professor in the Section for History and Philosophy of Science at the University of Copenehagen

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