# Patrick Landon Ferree

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# RESEARCH

AOS: Philosophy of Science, Philosophy of Measurement, History and Philosophy of Biology and Biomedicine

AOC: Philosophy of Technology, Science and Technology Studies, History of Philosophy

# EDUCATION

## University of Copenhagen

Copenhagen, DK

PhD Student in Philosophy of Science

in Progress

## **Duke University School of Medicine**

Durham, NC, USA

PhD in Cell Biology - Certificate in Cell and Molecular Biology

Apr 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

La Jolla, CA, USA

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

Jun 2012

## EXPERIENCE

#### University of Copenhagen

Copenhagen, DK

Graduate Student Researcher, Advisors: Karin Tybjerg & Sara Green

Mar 2024 - Present

- Affiliation: Medical Museion, Department of Public Health; Program in Medicine, Culture, and Society
- Affiliation: Novo Nordisk Foundation Center for Basic Metabolic Research (CBMR)
- Member: Section for History and Philosophy of Science, Department of Science Education
- Member: Center for Medical Science and Technology Studies (MeST)
- Research: Philosophy of measurement and modeling in the biomedical sciences

# The National Research Centre for the Working Environment

Copenhagen, DK

Postdoctoral Researcher, Advisor: Keld Alstrup Jensen

Jun 2022 - Mar 2024

• Research: Occupational exposure science; chemistry and physics of airborne particles

#### Duke University School of Medicine, Department of Cell Biology

Durham, NC, USA

Graduate Student Researcher, Advisor: Stefano Di Talia

Sep 2014 - Apr 2022

• Research: Developmental biology; cell-cycle regulation in the early fly embryo

#### University of Texas, El Paso, Department of Psychology

El Paso, TX, USA

Research Technician, Advisor: Laura O'Dell

Scripps Institute of Oceanography

Jan 2013 - Sep 2014

• Research: Neuroscience of drug addiction in rats

La Jolla, CA, USA

#### Undergraduate Researcher, Advisor: Lynn Russell

1 JOHA, CH, CDI

Jan - Sep 2012

• Research: Chemistry and physics of atmospheric aerosols

# Manuscripts in progress

- 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" (Article in Revision).
- 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).

# SCIENCE PUBLICATIONS

- 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", *Dev 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**).

# Select Talks and Poster Presentations

- 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

Summer School on 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.

Conference: Crossing the Disciplinary Boundaries of Physics, Bohr Centennial, Copenhagen, Denmark, Aug 2023.

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.

# ACADEMIC SOCIETIES

Member, Society for Philosophy of Science in Practice, 2023-present.

Member, International Society for the History, Philosophy, and Social Studies of Biology, 2024-present.

Member, History of Science Society, 2024-present.

Member, The Richard Rorty Society, 2019-present.

# REFERENCES

## Karin Tybjerg, PhD

Associate Professor, Medical Museion, University of Copenhagen

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## 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

Associate Professor, Department of Cell Biology, Duke University

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