

JONATHAN KASDIN

New York, NY

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EDUCATION

Columbia University
PhD in Neuroscience

Aug 2019 – present
New York, NY

Princeton University
A.B. in Neuroscience

Aug 2014 – May 2018
Princeton, NJ

RESEARCH EXPERIENCE

PhD Student, Gadagkar lab | Columbia University

Nov 2020 – present

- Discovered dopamine's role in the learning a natural behavior through reinforcement
- Assembled lab equipment including a fiber photometry system

Research Assistant, Berry lab | Princeton University

Aug 2018 – June 2019

- Discovered V1 layer 2/3 neurons' ability to track the timing of basic stimuli

Undergraduate Researcher, Berry lab | Princeton University

Feb 2017 – May 2018

- Discovered deviance detection in V1 layer 2/3 neurons

Undergraduate Researcher, Brody lab | Princeton University

June 2015 – June 2016

- Identified projections to the striatum using CTB tracing

Summer Research Assistant, Axel and Jessell labs | Columbia University

Jun–Aug 2012, 2013

- Assessed AAV serotype transduction efficiency
- Created arena for viewing automated mouse behavior
- Analyzed data from the motor cortex of a walking mouse using jPCA

PAPERS

Kasdin, J.*, Duffy, A.*., Nadler, N., Raha, A., Fairhall, A., Stachenfeld, K., Gadagkar, V. Natural behaviour is learned through dopamine-mediated reinforcement. *Nature* (2025). <https://doi.org/10.1038/s41586-025-08729-1>
(* equal contribution)

TALKS

The Neuroscience of Social Connections: Local Circuits Symposium

Invited Speaker

New York, NY 2024

Sci-Fest

Data Blitz presenter

New York, NY 2024

Gordon Research Conference: Neural Mechanisms of Acoustic Communication

Main Conference

Newry, ME 2024

SELECT POSTERS

Kasdin, J., Duffy, A., Nadler, N., Raha, A., Fairhall, A., Stachenfeld, K., Gadagkar, V. "Dopamine Guides Vocal Learning Through Reinforcement" *Gordon Research Conference* (2024).

MENTORING, OUTREACH, ORGANIZATION

- Late Night Science: Gave a talk on my research to members of the local community
- Saturday science: Ran a station in an activity fair at Columbia for children
- Zuckerman Institute Climbing Club: Organized climbing outreach with other NYC-based universities
- Scientists on the Subway: Edited profiles of Columbia scientists published on the Zuckerman Institute website
- Mentoring in lab: Mentored two graduate students

SKILLS

- MATLAB
- Developing experimental hypotheses
- Fiber photometry

- Python
- Scientific writing

- Animal surgery
- Mentoring