

Curriculum Vitae

Jessica A. Osterhout Ph.D.

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Professional Positions

University of Utah
2022 – Assistant professor of Neurobiology

Education and Training

Harvard University
2016-2022 Postdoctoral Fellow, Molecular and Cellular Biology Department, Advisor: Catherine Dulac, Ph.D.
University of California, San Diego
2010-2015 Ph.D. in Biological Sciences, Advisor: Andrew Huberman, Ph.D.
Thesis: Axon target matching in the developing visual system
University of Oregon
2006-2010 B.S. in Biology, minor in Chemistry, Research Advisor: Chris Doe, Ph.D.

Honors, Prizes and Fellowships

2025 Pew Biomedical Scholar
2024 Semi-finalist, the Howard Hughes Medical Institute 2025 Freeman Hrabowski Scholars Program
2024 Klingenstein-Simons Fellowship Award
2024 Whitehall Foundation Research Grant
2021 Y. Eva Tan Postdoctoral Fellowship
2021 Meselson Prize for “The most beautiful experiment of the year”, Harvard University
2020 NIH Pathway to Independence Award (K99/R00)
2019 Best Poster Award, Ascona Circuits Meeting
2016 Jane Coffin Childs Memorial Fund Postdoctoral Fellowship
2016 Damon Runyon Postdoctoral Fellowship (declined)
2011 National Science Foundation Graduate Research Fellowship
2012 Fine Science Tools Travel Award
2010 GAANN fellowship, US Department of Education

Grant Support

Active

1/2020-1/2026 NIH K99/R00 Pathway to Independence Award. “Molecular and functional characterization of the cells and circuits underlying the fever response”
7/2024-6/2027 Whitehall Foundation Research Grant. “Control of pain sensitivity during sickness”
7/2024-6/2027 Klingenstein-Simmons Fellowship Award. “Why does sickness hurt?”
8/2025-7/2029 Pew Biomedical Scholars Award. “Immunoception: how does the brain decode immune signals?”

Publications

Osterhout JA, Kapoor V, Eichhorn SW, Vaughn E, Moore JD, Lui D, Lee D, DeNardo LA, Luo L, Zhuang X, Dulac C (2022). A preoptic neuronal population controls fever and loss of appetite during sickness. *Nature* (606): 937-944.

Li Y, Mathis A, Grewe BF, **Osterhout JA**, Ahanonu B, Schnitzer MJ, Murthy VN, Dulac C (2017) Neuronal

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representation of social information in the medial amygdala of awake behaving mice. *Cell* (5): 1176-1190.

Osterhout JA, Nguyen PL, Yoshihara Y, Huberman AD (2015) Contactin-4 mediates axon-target specificity and functional development of the accessory optic system. *Neuron* (4): 855-57.

Osterhout JA, El-Danaf RN, Nguyen PL, Huberman AD (2014) Birthdate and outgrowth timing predict cellular mechanisms of axon-target matching in the developing visual pathway. *Cell Reports* (8):1-12.

Osterhout JA, Josten N, Yamada J, Pan F, Wu SW, Nguyen PL, Panagiotakos G, Inoue YU, Egusa SF, Volgi B, Inoue T, Bloomfield SA, Barres BA, Berson DM, Feldheim DA, Huberman AD (2011) Cadherin-6 mediates axon-target matching in a non-image-forming visual circuit. *Neuron* (71):632-9.

Carney TD, Miller MR, Robinson KJ, Bayraktar OA, **Osterhout JA**, Doe CQ (2012) Functional genomics identifies neural stem cell sub-type expression profiles and genes regulating neuroblast homeostasis. *Dev Biol* (36):137-46.

Invited Research Talks

2025 **Vitae 2025**, University of Utah, Salt Lake City, UT
 2025 **Brain Barriers Meeting**, Cold Spring Harbor Laboratory
 2025 **St. Jude's Children's Hospital**, SJCRH Brain Club Speaker, Memphis, TN
 2024 **Iowa State University**, Genetics, Development and Cell Biology, Ames, Iowa
 2024 **University of Otago**, Center for Neuroendocrinology, Virtual
 2024 **Society of Neuroendocrinology Conference**, Columbus, OH
 2024 **Keystone Symposia: Neuroimmune Interactions**, Santa Fe, NM
 2024 **Winter Conference on Neural Plasticity**, Puerto Vallarta, Mexico
 2023 **Columbia University**, Naomi Berrie Diabetes Center, New York City, NY
 2023 **International Society of Neuroimmunology Annual Congress**, Quebec City, Canada
 2023 **American Association of Immunology Annual Meeting**, Washington D.C.
 2022 **University of New Mexico**, Center for Evolutionary and Theoretical Immunology
 2022 **Northwestern University, Children's Hospital of Chicago**, Neurobiology of Disease Series
 2022 **Gordon Research Conference**, Optogenetic approaches to understanding neural circuits
 2022 **Open Box Science Seminar**, Virtual
 2021 **Tan-Yang Center Scientific Advisory Board meeting**, Virtual
 2020 **Harvard University**, Department of Molecular and Cellular Biology seminar series
 2019 **Jane Coffin Childs Annual Symposium**, New Haven, CT
 2018 **Postdoc Science Café**, Harvard University, Cambridge, MA
 2013 **Biological Sciences retreat**, Lake Arrowhead, CA
 2012 **Neurodevelopment Interest Group Symposium**, San Diego, CA

Mentorship and Advising

Graduate Students

(2022 –) Jacklyn Nguyen, University of Utah, Neurobiology Program
 (2022 –) Michelle Swarovski, University of Utah, Neuroscience Program
 (2024 –) Hailee Walker, University of Utah, Neuroscience Program
 (2024 –) Sophia Andreadis, University of Utah, Neuroscience Program

Postdoctoral Scholars

(2024 –) Danielle Germundson-Hermanson, PhD

Post-Bac Research Technicians

(2023 –) Robert Ettaro, University of Utah
 (2021-2022) Josie Emery, Harvard University, Research technician, Dulac Laboratory

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(2019-2021) Ashely Emery, Emory University, Psychology Ph.D. student
 (2018-2019) Dean Lee, M.S., HiFiBio Therapeutics, Group Leader, Single Cell Data Scientist

Undergraduates

(2024 –) Samuel Hedges, University of Utah
 (2022-2024) Marie Slater, Graduate student, Physician Assistant Program
 (2019-2021) Isabella Beckett, MCR Laboratory of Molecular Biology, Ph.D. student
 (2019-2021) Aba Sam*, University of Oxford, Clinical and Therapeutic Neuroscience Masters program
 (2018-2019) Melonie Vaughn*, University of California, San Diego, Biological Sciences Ph.D. student
 (2017-2019) Rajdeep Trilokekar, Brigham Young University Law, J.D. student
 (2016) Ibtihal Elfaki*, Stanford Medicine M.D./Ph.D. student
 (2011-2013) Pritha Multani M.D., Department of pediatrics, UC Davis, resident

Graduate Student Thesis Advisory Committees

(2024 –) Claire Tobin, Neuroscience Graduate Program, University of Utah
 (2024 –) Michaela Murphy, Neuroscience Graduate Program, University of Utah
 (2024 –) Courtney Demmitt-Rice, Neuroscience Graduate Program, University of Utah
 (2023 –) Samantha Stone, Microbiology and Immunology Graduate Program, University of Utah
 (2023 –) Qwynn Landfield*, Neuroscience Graduate Program, University of Utah
 (2022 –) Uchechukwu Mgbike*, Bioscience Graduate Program, University of Utah
 (2022 –) Maddie Swall, Bioscience Graduate Program, University of Utah

Service and Outreach

2023 – *Member of Committee for Respect, Unity and Equity*, Neurobiology Dept., University of Utah
 2023 – *Faculty Advisor: Rising stars in Neuroscience program*, University of Utah
 2023 – *Recruitment Committee Chair: Neuroscience Graduate Program*, University of Utah
 2023 – *Retreat Committee Chair: Neurobiology Department*, University of Utah
 2014-2015 *Graduate Research Seminar Organizer: Neurobiology series*, Univ. of Calif., San Diego
 2012 *Guest Lecturer: Advanced Placement Genetics laboratory*, Southwest High School, San Diego
 2011 *Judge: Greater San Diego Science and Engineering Fair*

Teaching experience

2025 *Course Director: Capstone preparation course*
 2024 *Guest Lecturer: Intro to Molecular Neuroscience*, University of Utah
 2024 *Guest Lecturer: Quantitative Methods in Neuroscience*, University of Utah
 2023 *Guest Lecturer: Light Microscopy and Digital Imaging*, University of Utah
 2019 *Teaching Fellow: Molecular basis of behavior*, Harvard University
 2014-2015 *Teaching Assistant Instructor: Biological Sciences*, University of California, San Diego
 Graduate teaching mentor; Trained, observed, evaluated PhD-level teaching assistants
 2015 *Guest Lecturer: Healthy and Diseased Brain*, University of California, San Diego
 2014 *Lead Teaching Assistant: Healthy and Diseased Brain*, University of California, San Diego
 2014 *Guest Lecturer: Healthy and Diseased Brain*, University of California, San Diego
 2013 *Teaching Assistant: Bacteriology*, University of California, San Diego
 2012 *Teaching Assistant: Biochemical Techniques Laboratory*, University of California, San Diego