

Peter Niesman

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Education

Yale University
Ph.D. Interdepartmental Neuroscience Program
New Haven, CT
08/2018-08/2026

University of Pittsburgh
Bachelor of Science in Neuroscience, GPA: 3.94/4
Pittsburgh, PA
08/2014-04/2018

Research Experience

Postdoctoral fellow - Fred Hutchinson Cancer Center
Advisor: Dr. Harmit S. Malik
09/2026-Present
Mother's Curse: mito-nuclear genetic conflict and male harming mutations in mtDNA

Graduate student - Yale University
Advisor: Dr. Michael Nitabach
08/2018-08/2026
Pupation site selection in *Drosophila* larvae

Undergraduate Researcher
Advisors:
01/2015-04/2018

(1) Dr. Anthony Kline - University of Pittsburgh Department of Physical Medicine and Rehabilitation; Safar Center for Resuscitation Research

- Influence of environmental enrichment on traumatic brain injury in rats

(2) Dr. Carlos Lois - Caltech Department of Biology & Biological Engineering

- Transneuronal control of transcription (TRACT) in *Drosophila*

(3) Dr. Sonbinh Nguyen - Northwestern University Department of Chemistry

- Synthesis of ultra small liposomal nanoparticles for cancer treatment

Publications (reverse chronological)

In Preparation

Niesman PJ, Valdivieso Calderón GA, Nitabach MN. Shifting sensory preferences drive pupation site selection in *Drosophila melanogaster* larvae.

6. Moschonas EH, **Niesman PJ**, Vozzella VJ, Bittner RA, Brennan CJ, Cheng JP, Bondi CO, Kline AE. Enriching adult male rats prior to traumatic brain injury does not attenuate

neurobehavioral or histological deficits. *Brain Research*. (2023). 1807:148314 doi: 10.1016/j.brainres.2023.148314

5. **Niesman PJ** and Silva V. Alkalinization of the synaptic cleft during excitatory neurotransmission. *Journal of Neuroscience*. (2020). 40(33):6267-6269. doi: 10.1523/JNEUROSCI.0914-20.2020. (journal club commentary)

4. Besagar S, Radabaugh HL, Bleimeister IH, Meyer EA, **Niesman PJ**, Cheng JP, Bondi CO, Kline AE. Aripiprazole and environmental enrichment independently improve functional outcome after cortical impact injury in adult male rats, but their combination does not yield additional benefits. *Experimental Neurology*. (2019). 314:67-73. doi: 10.1016/j.expneurol.2019.01.010

3. Bao GC, Bleimeister IH, Zimmerman LA, Wellcome JL, **Niesman PJ**, Radabaugh HL, Bondi CO, Kline AE. Intermittent administration of haloperidol after cortical impact injury neither impedes spontaneous recovery nor attenuates the efficacy of environmental enrichment. *Journal of Neurotrauma*. (2019). 36(10):1606-1614. doi: 10.1089/neu.2018.6212

2. **Niesman PJ**, Wei J, LaPorte MJ, Carlson LJ, Nassau KL, Bao GC, Cheng JP, de la Tremblaye PB, Lajud N, Bondi CO, Kline AE. Albeit nocturnal, rats subjected to traumatic brain injury do not differ in neurobehavioral performance whether tested during the day or night. *Neuroscience Letters*. (2018). 665, 212-216. doi: 10.1016/j.neulet.2017.12.018

1. Huang T, **Niesman P**, Arasu D, Lee D, de la Cruz A, Lois C. Transneuronal control of transcription to trace neuronal circuits in transgenic animals. *eLife*. 2017;6:e32037. doi: 10.7554/eLife.32027

Public science posts

Niesman PJ. BAcTrace a new tool for retrograde tracing of neuronal circuits.

PreLights. (2020).

<https://prelights.biologists.com/highlights/bactrace-a-new-tool-for-retrograde-tracing-of-neuronal-circuits/>

Presentations

Posters

Niesman PJ, Valdivieso Calderón G, Nitabach MN. Investigating a developmental shift in an innate behavior in *Drosophila* larvae . Neurofly 2022, Sep 08, 2022, Saint-Malo, France.

Niesman PJ, Wei J, LaPorte MJ, Cheng JP, de la Tremblaye PB, Lajud N, Bondi CO, Kline AE. Albeit nocturnal, rats subjected to traumatic brain injury do not differ in performance whether tested during the day or night. Neuroscience 2017, Nov 12, 2017, Washington D.C.

Nassau KL, Wei J, **Niesman PJ**, Carlson LJ, Laporte MJ, Cheng JP, Bondi CO, Kline AE. Albeit nocturnal, rats subjected to traumatic brain injury do not differ in performance whether tested during the day or night. Brain Day 2016, Nov 4, 2016, University of Pittsburgh, Pittsburgh, PA.

O'Neil DA, **Niesman PJ**, Wei J, Cheng JP, Tapias VM, Bondi CO, Kline AE. Environmental Enrichment attenuates traumatic brain injury-induced inflammation and oxidative stress. Science 2016 - Game Changers, Oct 21, 2016, University of Pittsburgh, Pittsburgh, PA.

Carlson LJ, Wei J, **Niesman PJ**, LaPorte ML, Cheng JP, Bondi CO, Kline AE. Albeit nocturnal, rats subjected to traumatic brain injury do not differ in performance whether tested during the day or night. Science 2015 – Unleashed, Oct 8, 2015, University of Pittsburgh, Pittsburgh, PA.

Honors & Awards

National

NSF Graduate Research Fellowship Program	2020-2025
CSHL Drosophila Neurobiology Course Student	2019
Faculty for Undergraduate Neuroscience: Neuroscience 2017 Travel Award	2017
Amgen Scholar at the California Institute of Technology	2017
Goldwater Scholarship Honorable Mention	2017

Yale University

Gruber Science Fellowship	2018-2021
- The Gruber Science Fellowship is awarded to the most highly ranked applicants to Yale PhD programs in the life sciences, cosmology, and astrophysics.	

University of Pittsburgh

James E. Bradler Jr. Award	2018
- Highest honor for undergraduate neuroscience research	
<i>summa cum laude</i>	2018
Full Tuition Scholarship	2014-2018
Dean's list	2014-2018

Students Mentored

Gabriella Valdivieso Calderón - Amherst College undergraduate, Wu Tsai Summer Scholar, postbaccalaureate scholar (06/2022-08/2022; 06/2024-05/2026)
Wu Heng - Yale University MCGD 1st-year rotation student (01/2022-03/2022)
Maria Inigo - University of Puerto Rico Summer (2020, virtual)

Service

Professional

2020 Reviewer for Neuron (co-wrote with PI)
2021 Reviewer for Nature Communications (co-wrote with PI)

National

2017-2019 Society for Neuroscience: Member
2020, 2021 Poster Judge for ABRCMS national meeting (virtual)

University

2020-2024 Yale University: INP Executive Committee Student Representative
- Elected as the young (years 1-3) student representative
- Represent student interests to a group of faculty
2018-2024 Yale University: INP Student Committee
- Student run committee to advocate for improvements to the graduate program
- Led development of a code of conduct
- Helped development of mentorship guidelines
2019 Yale University: INP Outreach
- Present neuroscience research to local schools
2019 Yale University: NeuroDay Organizing Committee
- Organized the retreat for the Yale INP
- ~300 person retreat with 15 talks over a full day
2018-2019 Yale University: INP recruitment organizing committee
- Organized recruitment events for interviewees
2016 University of Pittsburgh: Center for Neuroscience Brain Program
- Present neuroscience research to local high schools

References

Mike Nitabach
Jamie Jeanne
Marina Picciotto

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