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EDUCATION

2019– PhD, Neuroscience, University of California San Francisco
2016 MS, Neuroscience, University of California San Francisco
2013 BS, Neuroscience, University of Pittsburgh
2013 BSE, Bioengineering, University of Pittsburgh

POSITIONS

2019– Postdoctoral Fellow, Princeton Neuroscience Institute, Princeton University
Advisor: Ilana B Witten, PhD
2013–2019 Graduate Student, Department of Physiology, University of California San Francisco
Advisor: Zachary A Knight, PhD

HONORS AND AWARDS

2022 McKnight Foundation Allison J Doupe Fellowship
2020 Donald B Lindsley Prize in Behavioral Neuroscience
2020 Eppendorf and *Science* Prize for Neurobiology
2020 Harold M Weintraub Graduate Student Award
2020 Helen Hay Whitney Foundation Postdoctoral Fellowship
2020 Winter Conference on Brain Research Travel Fellowship
2017 NIH National Research Service Award Predoctoral Fellowship
2016 Genentech Foundation Predoctoral Fellowship
2015 UCSF Discovery Fellowship
2013 NSF Graduate Research Fellowship

PUBLICATIONS

Cox J, Minerva AR, Fleming WT, [Zimmerman CA](#), Hayes C, Zorowitz S, Bandi A, Ornelas S, McMannon B, Parker NF, Witten IB. A neural substrate of sex-dependent modulation of motivation. *Nature Neuroscience* 26, 274–284, 2023.

[Zimmerman CA](#). Neuroscience: Secretin excites the thirst circuit. *Current Biology* 32, R1318–R1320, 2022.

Bolkan SS*, Stone IR*, Pinto L, Ashwood ZC, Iravedra Garcia JM, Herman AL, Singh P, Bandi A, Cox J, [Zimmerman CA](#), Cho JR, Engelhard B, Pillow JW, Witten IB. Opponent control of behavior by dorsomedial striatal pathways depends on task demands and internal state. *Nature Neuroscience* 25, 345–357, 2022. *Equal contributions

[Zimmerman CA](#). The origins of thirst. *Science* 370, 45–46, 2020.

[Zimmerman CA](#), Knight ZA. Layers of signals that regulate appetite. *Current Opinion in Neurobiology* 64, 79–88, 2020.

[Zimmerman CA](#), Huey EL, Ahn JS, Beutler LR, Tan CL, Kosar S, Bai L, Chen Y, Corpuz TV, Madisen L, Zeng H, Knight ZA. A gut-to-brain signal of fluid osmolarity controls thirst satiation. *Nature* 568, 98–102, 2019.

Leib DE*, [Zimmerman CA](#)*, Poormoghaddam A, Huey EL, Ahn JS, Lin YC, Tan CL, Chen Y, Knight ZA. The forebrain thirst circuit drives drinking through negative reinforcement. *Neuron* 96, 1272–1281, 2017. *Equal contributions

[Zimmerman CA](#), Leib DE, Knight ZA. Neural circuits underlying thirst and fluid homeostasis. *Nature Reviews Neuroscience* 18, 459–469, 2017.

Leib DE, [Zimmerman CA](#), Knight ZA. Thirst. *Current Biology* 26, R1260–R1265, 2016.

Tan CL, Cooke EK, Leib DE, Lin YC, Daly GE, [Zimmerman CA](#), Knight ZA. Warm-sensitive neurons that control body temperature. *Cell* 167, 47–59, 2016.

Chen Y, Lin YC, [Zimmerman CA](#), Essner RA, Knight ZA. Hunger neurons drive feeding through a sustained, positive reinforcement signal. *eLife* 5, e18640, 2016.

[Zimmerman CA](#), Lin YC, Leib DE, Guo L, Huey EL, Daly GE, Chen Y, Knight ZA. Thirst neurons anticipate the homeostatic consequences of eating and drinking. *Nature* 537, 680–684, 2016.

Luongo FJ, [Zimmerman CA](#), Horn ME, Sohal VS. Correlations between prefrontal neurons form a small world network that optimizes the generation of multineuron sequences of activity. *Journal of Neurophysiology* 115, 2359–2375, 2016.

PRESENTATIONS

Conference and Departmental Talks

Princeton Neuroscience Institute Retreat. Philadelphia, PA. May 2023.

Helen Hay Whitney Foundation Meeting. Dedham, MA. Nov 2022.

Hellenic Society for Neuroscience Meeting. Virtual. Oct 2021.

Scripps Department of Neuroscience. La Jolla, CA. Sep 2018.

Keystone Symposium, Synapses and Circuits. Santa Fe, NM. Mar 2017.

UCSF Neuroscience Retreat. Pacific Grove, CA. Sep 2016.

UCSF Diabetes and Obesity Retreat. Santa Cruz, CA. Sep 2015.

Conference Posters

Winter Conference on Brain Research. Snowbird, UT. Jan 2023.

Gordon Research Conference, Optogenetics. Newry, ME. Jul 2022.

Winter Conference on Brain Research. Big Sky, MT. Jan 2020. Poster Award.

Gordon Research Conference, Neuromodulation. Les Diablerets, Switzerland. May 2019.

Howard Hughes Medical Institute Meeting. Chevy Chase, MD. Dec 2018.

Cold Spring Harbor Meeting, Neuronal Circuits. Laurel Hollow, NY. Apr 2018.

Keystone Symposium, Synapses and Circuits. Santa Fe, NM. Mar 2017.

Society for Neuroscience Meeting. San Diego, CA. Nov 2016.

TEACHING AND SERVICE

2022 Princeton Neuroscience Institute Seminar Host

2021–2022 Princeton Neuroscience Institute Seminar Series Committee

2021–2022 Princeton Neuroscience Institute Undergraduate Junior Tutorial Course Instructor

2021–2022 Princeton Neuroscience Institute Graduate Student Bootcamp Course Instructor

2021 Neuromatch Academy Computational Neuroscience Course Mentor

2021– Journal Peer Review: *Current Biology*, *Current Opinion in Neurobiology*, *PLOS One*, *Scientific Reports*, *STAR Protocols*

2021– Trainee Supervision in the Witten Lab: 3 PhD Rotations, 2 Technicians, 2 Undergraduates

2020–2023 Princeton Neuroscience Institute Graduate Student Journal Club Course Instructor

2019 UCSF Science and Health Education Partnership Teaching Volunteer

2018 UCSF Neuroscience Graduate Program Recruitment Speaker

2015 UCSF School of Dentistry Cell Physiology Course Teaching Assistant

2014–2017 UCSF Neuroscience Graduate Program Recruitment Host

2014–2019 Trainee Supervision in the Knight Lab: 4 PhD Rotations, 3 Technicians, 1 Undergraduate