



NORA HAMMACK

Oregon Health & Science University, School of Medicine, Neuroscience Graduate Program

Degrees:

B.S. in Neuroscience, Oberlin College

Advisor:

Mary Heinricher, PhD

Scholar Award Donor:

Missy Vaux Hall

About the Scholar:

Nora researches pain by recording the electrical activity of neurons in the brain stem of rats. She is exploring the effect of light on pain, specifically how and when it exacerbates pain. The neurons she records from in the brain stem are known to respond to pain in a specific way, and recently it has been shown that they respond to light similarly. Nora wants to know why these pain cells are responding to light, and whether this light response is relevant to disease.

Benefits to Society:

This could have treatment implications for conditions such as traumatic brain injury or fibromyalgia.

Publications and Posters:

"Striatal cholinergic interneurons drive GABA release from dopamine terminals"
Alexandra B. Nelson, **Nora Hammack**, Cindy F. Yang, Nirao M. Shah, Rebecca P. Seal, Anatol C. Kreitzer
Neuron. 2014 April 2; 82(1): 63–70.

"Control of Basal Ganglia Output by Direct and Indirect Pathway Projection Neurons"
Benjamin S. Freeze, Alexxai V. Kravitz, **Nora Hammack**, Joshua D. Berke, Anatol C. Kreitzer
J Neurosci. 2013 November 20; 33(47): 18531–18539.

"Type 1 Equilibrative Nucleoside Transporter Regulates Ethanol Drinking through Accumbal N-Methyl-D-Aspartate Receptor Signaling"
Hyung Wook Nam, Moonnoh R. Lee, Yu Zhu, Jinhua Wu, David J. Hinton, Sun Choi, Taehyun Kim, **Nora Hammack**, Jerry C.P. Yin, Doo-Sup Choi
Biol Psychiatry. 2011 June 1; 69(11): 1043–1051