



REENA CLEMENTS

Oregon Health and Science University, Neuroscience

Degrees:

BA in Neuroscience, Boston University

Advisor:

Kevin Wright, PhD

Scholar Award Donors:

Lynn and Steve Pratt

About the Scholar:

Reena is studying how neurons are able to extend their axons to make connections in distant target areas. Specifically, she studies the role of dystroglycan on visual system development. Patients with dystroglycan mutations manifest numerous neurodevelopmental defects including diminished visual function. When dystroglycan is lost, retinal output cells cannot project their axons along normal pathways or correctly synapse on downstream targets in the brain. Reena aims to characterize the molecular and anatomical bases for these defects by using advanced imaging and axon tracing techniques.

Benefits to Society:

Reena's research looks at signaling and axon pathfinding disrupted in dystroglycan mutations, which could direct future retinopathy therapies.

Awards and Honors:

National Science Foundation Graduate Research Fellowship Program (NSF GRFP)

Phi Beta Kappa

Summa cum laude, Boston University

Graduated with honors in Neuroscience, Boston University

Publications and Posters:

Clements, R., and Wright, K. M. Dystroglycan regulates visual circuit development. ARVO Annual Meeting 2015 Denver, CO.

Clements, R., and Wright, K. M. Dystroglycan regulates visual circuit development. Neuroscience Graduate Program Annual Retreat 2014 Government Camp, OR.

Clements, R., N. Rycroft, and J. Atema. "Antennule flick rate as an assay for detection of novel social odors in lobsters." Society for Neuroscience Annual Meeting 2013, San Diego, CA.

Clements, R., N. Rycroft, and J. Atema. "Establishing Antennule Flick Rate as an Assay for Odor Detection in Lobsters." Society for Integrative and Comparative Biology Annual Meeting 2013, San Francisco, CA.

Clements, R., T. Miyashita, O. Pourzia, and D. Feldman. "Inhibitory plasticity and neural projections in somatosensory cortex in rodents." University of California, Berkeley Amgen Scholars Summer Research Symposium and Boston University UROP Symposium. August and October 2012.