Tyler **Bradshaw, PhD**

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"Know where you've been and where you're going."

Summary

I am a recent PhD graduate from the Neurobiology department at Duke University. My PhD work utilized proteomics to generate maps of subcellular organelles. I have extensive experience working at the 'bench' were I helped deploy cutting edge tools in molecular neuroscience. I am a self-taught programmer and data scientist. My work draws together ideas and approaches spead across the fields of proteomics and computer science to help bridge gaps in our understanding of the neurobiology of disease.

Work Experience

Soderling Laboratory, Department of Cell Biology, Duke University — *Durham, NC*

Research Technician — *May 2014 - May 2016*

- Established use of CRISPR-based tools for gene depletion
- Performed immunoblotting, immunostaining, and cell and tissue culture
- Generation of adeno associated virus for injection into mice
- Maintained mouse colony with >30 strains of mice

Honors & Awards

2018-2021 **Ruth L. Kirschstein National Research Service Award**, NIH NRSA 5F31NS113738-03 — *Duke University*

Presentation

Evaluting changes in the synaptic protein architecture in mouse autism disorders — *Neurobiology Retreat*

Poster Presentation — *November 2018*

- Research poster presentation

Seizures and Ube3a synergistically impair a sociability circuit in a mouse model of autism — *Department of Neurobiology, Duke University*

Student Seminar Presentation — *2018*

- Presentation to Duke Neurobiology faculty and students

A Targeted-Proteomics Approach to Interrogate the Synaptopathology Underlying Monogenic Autism Spectrum Disorders — *Neurobiology Retreat, Wrightsville Beach, NC*

Poster Presentation — *2017*

- Presentation to Duke Neurobiology faculty and students

Development of a Targeted-Proteomics Approach to Identify Underlying Mechanisms of Synaptic Pathologies — *The Society for Neuroscience, San Diego, CA*

Poster Presentation — *2017*

- Presentation to Duke Neurobiology faculty and students

Unraveling the Molecular Mechanisms of Inhibitory Synaptic Function in vivo — *Cell Biology Retreat, Beaufort, NC*

Poster Presentation — *2015*

- Presentation to Duke Neurobiology faculty and students

Exploring diabetes-derived intestinal changes that promote atherosclerosis — *Bornfeldt Laboratory, University of Washington, Seattle WA*

Honors Research Manuscript — *2014*

- Presentation to SOURCE faculty and students

Obesity, Insulin Resistance, and Type 2 Dibetes in Ossabaw Swine

Surgical Outcome Research Center, Seattle WA

Presentation

2013

- Presentation to SOURCE faculty and students

Publications

Genetic Disruption of WASHC4 Drives Endo-lysosomal Dysfunction and Cognitive-Movement Impairments in Mice and Humans

eLife | doi: 10.7554/eLife.61590

Lead Co-Author

March 22nd, 2021

- Developed analytical approach to identify changes in the Swip spatial proteome.

Education

Duke University

Durham, North Carolina

PhD in Neurobiology

Fall 2015 - May 2021

- Soderling Laboratory

Unversity of Washington

Seattle, Washington

BS in Molecular, Cellular and Developmental Biology

Fall 2010 - Spring 2014

- Bornfeldt Laboratory