**Matthew Wayne Kruger**
Scientist
Anchorage, AK
Matthew.wayne.kruger@gmail.com
360-619-8954

## Education

| | |
|---|---|
| May 2019 | Master of Professional Studies (M.P.S) in Biochemistry, University of Maine, Orono, ME |
| Aug 2015 | M.S. Zoology, Washington State University, Vancouver, WA |
| May 2012 | B.S. Biology, Psychology Minor, Washington State University, Vancouver, WA |

## Professional History

| | |
|---|---|
| 2015-2018 | Research Assistant, Graduate School Biomedical Science and Engineering, University of Maine, Orono, ME |
| 2012-2015 | Research Assistant, Neuroscience Program, Washington State University, Vancouver, WA |
| 2010-2012 | Research Assistant, School of Molecular Biosciences, Washington State University, Vancouver, WA |

## Honors and Awards

| | |
|---|---|
| 2017 | Graduate School Government Grant, University of Maine, Orono, ME |
| 2016 | Graduate School Government Grant, University of Maine, Orono, ME |
| 2016 | The Maine IDeA Network of Biomedical Research Excellence (INBRE) funding, University of Maine, Orono, ME |
| 2016 | The James Slater Murphy, M.D. Fund, University of Maine, Orono, ME |
| 2015-2017 | NSF IGERT Fellowship, University of Maine, Climate Change Institute, Orono, ME |
| 2015 | NextGen VOICES Winner, Science Magazine |
| 2015 | Carl H. Elling Fellowship, Washington State University, Pullman, WA |
| 2014 | Travel Grant, Washington State University, Vancouver, WA |
| 2012 | Graduated with Honors, Washington State University, Vancouver, WA |
| 2011-2012 | President's Honor Roll, Washington State University, Vancouver, WA |

## Professional Service

| | |
|---|---|
| 2016-2017 | Graduate Student Government Senator, University of Maine, Orono, ME |
| 2015-2016 | Mentored an Undergraduate Student, University of Maine, Orono, ME |
| 2014-2015 | Mentored an Undergraduate Student, Washing State University, Vancouver, WA |
| 2012-2015 | Treasurer, Salmon Speakers Toastmasters Club, Vancouver, WA |
| 2014 | Assisted in Reviewing a PLoS One Manuscript |
| 2014 | Assisted in Writing a NIH R15 Grant, Characterizing the protective effects of caffeine and other natural products in a zebrafish model of hearing loss, R15DC013900-01, Funded February 2014 |

## Publications

**Kruger M**, Boney R, Ordoobadi AJ, Sommers TF, Trapani JG, Coffin AB (2016) Natural bizbenzoquinoline derivatives protect zebrafish lateral line sensory hair cells from aminoglycoside toxicity. Frontiers in Cellular Neuroscience 10 (83):1-16

**Kruger M** (2015) TEMPORARY HUMAN COPIER Be in multiple places! NextGen's tools for the future. Science 348(6230):32

Hayashi L, Sheth M, Young A, **Kruger M**, Wayman G, Coffin AB (2015) The effect of the aquatic contaminants bisphenol-A and PCB-95 on the zebrafish lateral line. NeuroToxicology 46(2015):125-136

## Poster Presentations

Sher RB, Kwok S, Lovejoy E, Lavin T, **Kruger M**, Powers S (2017) Embryonic Exposure to the Environmental Neurotoxin BMAA Negatively Impacts Early Neuronal Development and Progression of Neurodegeneration in SOD1-G93R Zebrafish Model of Amyotrophic Lateral Sclerosis. The 28th International Symposium on ALS/MND, Westin Boston Waterfront, Boston, MA

**Kruger M**, Sher RB (2017) Climate change may increase the prevalence of Neurodegenerative disease in Maine. GSBSE Annual Meeting, University of Maine, Orono, ME

Powers S, **Kruger M**, Kwok S, Lavin T, Sher RB (2016) The Interaction of the Environmental Neurotoxin BMAA (Beta-Methylamino-L-Alanine) With Mutant SOD1 in a Zebrafish Model of Amyotrophic Lateral Sclerosis. The 27th International Symposium on ALS/MND, the Convention Centre Dublin, Dublin, Ireland

**Kruger M**, Sher RB (2016) The Impact of Climate Change on Harmful Algal Blooms and Algal Toxin Effects on the Development of Neurodegenerative Disorders. 43rd Maine Biological and Medical Sciences Symposium, MDI Biological Laboratory, Salisbury Cove, ME

**Kruger M**, Sher RB (2016) The Impact of Climate Change on Harmful Algal Blooms and Algal Toxin Effects on the Development of Neurodegenerative Disorders. 24th Annual Borns Symposium, University of Maine, Orono, ME

Smith NK, Neveux SR, **Kruger M**, Coffin AB (2015) Screening for Ototoxic Potential of Natural Products in the Zebrafish Lateral Line. Association for Research Otolaryngology, Baltimore, MD

**Kruger M**, Boney R, Coffin AB (2015) Plant-derived compounds protect sensory hair cells from toxic damage. Northwest Developmental Biology meeting, Friday Harbor Laboratories, San Juan Island, WA

**Kruger M**, Coffin AB (2014) Plant-derived alkaloids ameliorate aminoglycoside-induced hair cell death in the zebrafish lateral line. 11th International Conference on Zebrafish Development and Genetics, University of Wisconsin, Madison, WI

Coffin AB, **Kruger M**, Neveux S, Smith N (2014) Over the counter and under the radar: The effect of natural products on hair cells in the zebrafish lateral line. 2014 Gordon Research Conference on the Auditory System, Bates College, Lewiston, ME

**Kruger M**, Coffin AB (2014) Natural Compounds Protect from Aminoglycoside-Induced Hair Cell Death. 11th Annual Research Showcase, Washington State University, Vancouver, WA

**Kruger M**, Coffin AB (2014) Natural Compounds Protect from Aminoglycoside-Induced Hair Cell Death. Northwest Developmental Biology meeting, Friday Harbor Laboratories, San Juan Island, WA

**Kruger M**, Coffin AB (2014) Natural Compounds Protect Against Aminoglycoside-induced Hair Cell Death in the Zebrafish Lateral Line. Graduate Student Symposium, Washington State University, Vancouver, WA

Todd A, Bell S, Brar R, Breslin S, Burleson H, Hongel D, Huynh Y, **Kruger M**, Latham C, Lorch C, Norvell J, Pendergraft M, Protsenko A, Sands S, Sylvester S (2011) Aggregation chemotaxis of the Asian oyster drill *Ocinebrellus inornatus*. Research Showcase, Washington State University, Vancouver, WA

**Oral Presentations**

**Kruger M,** Sher RB (2017) Abrupt Climate change may increase the prevalence of Amyotrophic Lateral Sclerosis in Maine. Belfast Bay Watershed Coalition, Belfast, ME

**Kruger M**, Burpee B, Fowler R (2017) ACC Contributions to Australian Freshwater HABs and Impacts on Human Systems. Collaborated Integrated Project, CCI A2C2 IGERT Retreat, University of Maine, Orono, ME

**Kruger M**, Sher RB (2017) The Link Between Climate Change, Harmful Algal Blooms, and Algal Toxins on the Development of Neurological Diseases. 25th Annual Borns Symposium, University of Maine, Orono, ME

**Kruger,** Sher RB (2017) Climate Change, Cyanobacteria, and Disease: The link between environmental toxins, climate change, and Amyotrophic Lateral Sclerosis (ALS). 2017 Maine Sustainability and Water Conference, Augusta, ME

**Kruger,** Sher RB (2017) Climate Change, Blue-Green Algae, and Disease: The link between environmental toxins, climate change, and Amyotrophic Lateral Sclerosis (ALS). Environmental Reconstruction Workshop, University of Melbourne, Victoria, Australia

**Kruger,** Sher RB (2016) Impacts of Climate Change on Harmful Algal Blooms and Their Association with the Development of a Neurodegenerative Disease. 2016 Annual Graduate School of Biological Science and Engineering (GSBSE) Meeting, University of Maine, Orono, ME

**Kruger M,** Sher RB (2016) Impacts of ACC on Harmful Algal Blooms and Their Association with the Development of a Neurodegenerative Disease. 2016 IGERT Retreat, University of Maine, Orono, ME

**Kruger M (**2016) My Research: Past and Present. The Graduate School of Biological Science and Engineering (GSBSE), 2016 Winter Meeting, Maine Medical Center Research Institute, Scarborough, ME

**Kruger M**, Coffin AB (2015) Plant-derived compounds protect sensory hair cells from toxic damage. Graduate Student Symposium, Washington State University, Vancouver, WA

**Kruger M**, Coffin AB (2014) Using natural compounds to prevent aminoglycoside-induced sensory hair cell death. Biomedical Seminar, Washington State University, Vancouver, WA

## Teaching Experience

| | |
|---|---|
| Fall 2018 | Teaching Assistant, University of Maine, Organic Chemistry Lab |
| Fall 2018 | Teaching Assistant, University of Maine, General Chemistry Lab |
| Spring 2018 | Teaching Assistant, University of Maine, Biochemistry Lab |
| Fall 2013 | Teaching Assistant, Washington State University Vancouver, Genetics |
| Spring 2014 | Teaching Assistant, Washington State University Vancouver, Inorganic Chemistry Lab |
| Fall 2014 | Teaching Assistant, Washington State University Vancouver, Cell Biology |

**Other Experience**

Summer 2018 Intern at Alaska Community Actions on Toxics, Anchorage, AK
Summer 2018 Graduate Assistant, Graduate School, University of Maine
Fall 2017 Graduate Assistant, Graduate School, University of Maine

**Professional Development**

New England Complex System Institute, Courses in Complexity, MIT, Cambridge, MA
Quantitative Fluorescence Microscopy Course, MDI Biological Laboratory, Salisbury Cove, ME
Toastmasters International
Society for Neuroscience
3rd Annual Zebrafish Husbandry Course, Buggertole, Italy