Michael J. Baltzley

Western Oregon University
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Education

2006 Ph.D. in Biology. University of North Carolina at Chapel Hill.
Dissertation: Evolution and neurobiology of the neural circuitry underlying crawling in nudibranch molluscs.

1997 B.S. in Biology with Honors. Pennsylvania State University, University Park.
Minor in Marine Science.

Professional Experience

2011-current Assistant Professor. Western Oregon University, Department of Biology.

2008-2011 Visiting Assistant Professor. St. Mary's College of Maryland, Department of Biology.

2006-2008 Postdoctoral Fellow. University of California, San Diego, Department of Biological Sciences. Supervisor: Dr. William B. Kristan, Jr.

Research Assistantships

2008 Parallel Evolution of Nervous Systems: From Genes to Behavior. Research Apprenticeship Program at Friday Harbor Laboratories, University of Washington.

2005 Neuroethology of Orientation Behavior: Analysis Using an Invertebrate Model System. Research Apprenticeship Program at Friday Harbor Laboratories, University of Washington.

2004 From Neurons to Behavior: Comparative Neurobiology of Marine Invertebrates. Research Apprenticeship Program at Friday Harbor Laboratories, University of Washington.

2002 Neurobiology and Behavior of Orientation and Navigation in Animals. Research Apprenticeship Program at Friday Harbor Laboratories, University of Washington.

Peer-reviewed Publications

[1]Baltzley MJ, [2]Sherman A, Cain SD, Lohmann KJ. 2011. Conservation of a *Tritonia* Pedal peptides network in gastropods. *Invertebrate Biology.* 130: 313-324. DOI 10.1111/j.1744-7410.2011.00242.x.

Baltzley MJ, Gaudry Q and Kristan WB Jr. 2010. Species-specific behavioral patterns correlate with differences in synaptic connections between homologous mechanosensory neurons. *Journal of Comparative Physiology A*. 196 (3): 181-197. DOI 10.1007/s00359-010-0503-y.

[1]Baltzley MJ and Lohmann KJ. 2008. Comparative study of TPep-like immunoreactive neurons in the central nervous system of nudibranch molluscs. *Brain, Behavior and Evolution*. 72 (3): 192-206. DOI:10.1159/000157356.

Baltzley MJ, Paradise CJ and Dunson WA. 1999. Interactive effects of density and water sodium concentration on insect larvae inhabiting tree holes. *Journal of Freshwater Ecology*. 14 (1): 113-124.

Manuscripts in Prep

[2]Gibbons KR, [2]Rees SD, Baltzley MJ. Characterization of synaptic interactions between mechanosensory cells in the American medicinal leech *Macrobdella decora*.

Baltzley MJ, Wang JH, Lohmann KJ. Effects of ablating magnetically responsive neurons on locomotion and turning.

Abstracts at Scientific Conferences

Boomer SM, Latham KL, Baltzley MJ. 2012. Active learning and advising strategies in freshman introductory biology—if you build it, some will come. American Society for Microbiology Conference for Undergraduate Educators.

[1]Gibbons KR, Baltzley MJ. 2010. Same wiring, different effect: how pressure mechanosensory neurons interact in the leeches *Macrobdella decora* and *Hirudo verbana.* Society for Integrative and Comparative Biology.

[1]Rees SD, Baltzley MJ. 2010. Visualizing electrical connections between sensory neurons in two leech species, *Hirudo verbana* and *Macrobdella decora.* Society for Integrative and Comparative Biology.

Baltzley MJ. 2010. Comparative physiology of mechanosensory neurons in three species of leeches. Society for Integrative and Comparative Biology.

Baltzley MJ, Gaudry Q, Kristan WB Jr. 2009. Changes in synaptic connections between mechanosensory neurons in leeches mediates species-specific behavior patterns. Society for Integrative and Comparative Biology.

[1]Selected for cover illustration
[2]Undergraduate students

Baltzley MJ, Kristan WB Jr. 2007. Using voltage-sensitive dye imaging to compare neural circuits underlying rhythmic motor patterns. Society for Neuroscience.

Baltzley MJ, Kristan WB Jr. 2007. Using voltage-sensitive dye imaging to identify targets of a decision-biasing neuron. International Society for Neuroethology.

Baltzley MJ, Lohmann KJ. 2006. Evolution of a neural circuit in sea slugs Society of Integrative and Comparative Biology.

Baltzley MJ, Lohmann KJ. 2004. Characterization and function of neurons homologous to the Pd5 mucociliary motor neurons in the mollusc *Tritonia diomedea*. Society of Integrative and Comparative Biology.

Baltzley MJ, Lohmann KJ. 2004. Characterization and function of mucociliary motor neurons in the nudibranch mollusc *Armina californica.* Society for Neuroscience.

Baltzley MJ, Cain SD, Lohmann KJ. 2003. Comparative anatomy of the ciliated pedal epithelium of nudibranch gastropods. Society of Integrative and Comparative Biology.

Invited Seminars

2010 Department of Biology, Franklin & Marshall College.
2009 Department of Biology, Dickinson College.
2005 Outstanding Student Lecturer. Biology Department Retreat at University of North Carolina at Chapel Hill, Department of Biology.
2004 Friday Harbor Laboratories, University of Washington.
2002 Marine Science Associates, San Juan Island, WA.

Grants and Fellowships Received

2012 Arctic Visiting Speaker Program Grant. Arctic Research Consortium of the United States.
2010 Faculty Development Grant. St. Mary's College of Maryland.
2009 Faculty Development Grant. St. Mary's College of Maryland.
2004 Wainwright Fellowship. Friday Harbor Laboratories, University of Washington.
2003 Kohn Fellowship. Friday Harbor Laboratories, University of Washington.
2002 Wilson Fund Scholarship. University of North Carolina at Chapel Hill, Dept. of Biology.
2001 NSF Graduate Student Research Fellowship.
2001 PADI Aware Grant.
1999 Joseph E. Pogue Fellowship. University of North Carolina at Chapel Hill, Graduate School.

Courses Taught

2012 Principles of Biology III. Introductory-level lecture and laboratory course for Biology majors. Western Oregon University.

2012 Neurobiology. Advanced-level lecture and laboratory course. Western Oregon University.

2012 Cell Biology. Lecture and laboratory course for Biology majors. Western Oregon University.

2011 Principles of Biology I. Introductory-level lecture and laboratory course for Biology majors. Western Oregon University.

2010 The Biology of Morality. Seminar course for first-year students. St. Mary's College of Maryland.

2011, '10, '09 Neurobiology. Advanced-level lecture and laboratory course. St. Mary's College of Maryland.

2011, '10, '09 Introduction to the Neurosciences. Introductory-level lecture course. St. Mary's College of Maryland.

2011, '10 Seminar in the Neurosciences. Advanced-level seminar course. St. Mary's College of Maryland.

2010, '09, '08 Principles of Biology I Lab. Introductory-level laboratory course for Biology majors. St. Mary's College of Maryland.

2009 Principles of Biology. Introductory-level lecture course for Biology majors. St. Mary's College of Maryland.

2008 Contemporary Bioscience with Laboratory. Introductory-level lecture and laboratory course for non-majors. St. Mary's College of Maryland.

Teaching Assistantships

2006, 2005 Vertebrate Structure and Evolution. University of North Carolina at Chapel Hill.

2002 Invertebrate Zoology. University of North Carolina at Chapel Hill.

St. Mary's Project Advisees (Senior Research Projects)

2010-2011 Amie Severino

2009-2010 Gibbons, Kaitlin
Nichols, Caitlin
Egorova, Elena

Undergraduate Research Assistants

2012	Turner, Michael. Western Oregon University
2012	Chapman, Andrew. Western Oregon University
2010	Sheridan, Steve. St. Mary's College of Maryland
2009	Dueker, Ashleigh. St. Mary's College of Maryland
2008-2011	Rees, Steven. St. Mary's College of Maryland
2008-2009	Gibbons, Kaitlin. St. Mary's College of Maryland
2007-2008	Parthasarthy, Vishnu. University of California, San Diego
2006-2007	Ruiz, Natalie. University of California, San Diego

Membership in Professional Societies

Society for Integrative and Comparative Biology
Society for Neuroscience
International Society of Neuroethology

Reviewed Manuscripts for:

Biological Bulletin
Marine & Freshwater Behaviour & Physiology
Proceedings of the Royal Society B

Reviewed Grants for:

Israel Science Foundation