

# CURRICULUM VITAE

**MALMQUIST, SARAH JEANINE**

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## EDUCATION

**PhD, Molecular and Cellular Biology**, University of Washington-Seattle, January 2013

Thesis: The Role of the Scaffold Protein Sorbs3 in Dorsal Root Ganglia Development

NIH Predoctoral Developmental Biology Training Grant Trainee

**BS, Biochemistry/Genetics**, University of Minnesota-Twin Cities, June 2004

*summa cum laude*, with distinction

Thesis: Mutational Analysis of A *Drosophila* Transcriptional Repressor Complex

**Certificate, Excellence in Teaching for New Faculty**, SUNY School of Professional Development, 2014

## POSITIONS HELD

**Director of Undergraduate Studies, Cellular and Organismal Physiology B.S.**, College of Biological Sciences, University of Minnesota- Twin Cities, August 2018 to present

**Teaching Assistant Professor of Physiology**, Department of Biology Teaching and Learning, University of Minnesota-Twin Cities, August 2017 to present

**Senior Lecturer**, Department of Neurobiology and Behavior, Stony Brook University, June 2016-July 2017

**Lecturer**, Department of Neurobiology and Behavior, Stony Brook University, August 2013-May 2016

**Lecturer**, Department of Biology, University of Washington-Seattle, June-August 2013

**Teaching Associate**, Department of Biology, University of Washington-Seattle, April-June 2013

**Graduate Research Assistant**, Program in Molecular and Cellular Biology, University of Washington-Seattle, August 2007-April 2013

**Junior Scientist**, Department of Genetics, Cell Biology and Development, University of Minnesota-Twin Cities June 2004-August 2007

## TEACHING/SCIENCE COMMUNICATION EXPERIENCE

**Instructor, BIOL1010/1012 Human Biology: Concepts and Current Ethical Issues**

University of Minnesota-Twin Cities, 2 academic terms Spring 2018-Fall 2018, flipped classroom active learning format

**Instructor, BIOL3211 Physiology of Humans and Other Animals**

University of Minnesota-Twin Cities, 3 academic terms Fall 2017-Fall 2018, flipped classroom active learning format

**Lecturer and course director, Bio203 Fundamentals of Biology: Cell and Organ Physiology**

Stony Brook University, 9 academic terms Summer 2014-Summer 2017; traditional lecture and hybrid online/flipped classroom versions

**Lecturer and course director, Bio328 Mammalian Physiology**

Stony Brook University, 4 academic terms Spring 2014-Spring 2017

**Lecturer and course co-director, Bio335 Neurobiology Laboratory**

Stony Brook University, 4 academic terms Fall 2013-Fall 2016

**Lecturer, Bio350 Fundamentals of Physiology**

University of Washington-Seattle, Summer 2013

**Teaching Associate, Bio220 Plant and Animal Physiology**

University of Washington-Seattle, Dr. Jessica McAbee/Jack Cerchiara, Spring 2013

**Graduate Teaching Assistant, Bio380 Biomedical Advances and Society**

University of Washington-Seattle, Dr. Amanda Schivell, Fall 2012

**Science Communication Fellow/Volunteer**

Pacific Science Center – Seattle, science communication coursework and exhibit design, Genetics and Human Health Cohort, May 2012-May 2013

**Guest Lecturer, MBioS401 Cell Biology**

Washington State University-Vancouver, Dr. Allison Coffin, Fall 2012

**Undergraduate Student Mentor**

University of Washington-Seattle, Dr. David Raible, Fall 2011-Spring 2012

**Science Education Partnership Mentor**

Fred Hutchinson Cancer Research Center-Seattle, Fall 2009-Spring 2010

**Graduate Teaching Assistant, Bio200 Molecular Cellular and Developmental Biology**

University of Washington, Dr. Amanda Schivell, Fall 2008

**Undergraduate Teaching Assistant, BioC3021 Biochemistry for non-majors**

University of Minnesota, Dr. Kenneth Adolph, Summer 2003

**RESEARCH EXPERIENCE**

**Ongoing Research**

Investigating the role of a novel graduated engagement strategy on student performance, success, retention and self-efficacy in multiple instructional contexts for introductory biology students, collaboration with Dr. William Collins, Department of Neurobiology and Behavior, Stony Brook University.

**Graduate Thesis Research**, role of the scaffold protein Sorbs3 in mediating ErbB-dependent dorsal root ganglion neurogenesis in the zebrafish, University of Washington, Dr. David Raible, 2007-2012

**Junior Scientist**, genetic and mutational analysis of developmental timing and signaling in *c. elegans*, University of Minnesota, Dr. Ann Rougvie, 2004-2007

**Undergraduate Research Assistant**, mutational analysis of a *Drosophila* transcriptional repressor complex, University of Minnesota, Dr. Jeffrey Simon, 2001-2004

**PUBLICATIONS**

**Malmquist S and Prescott K.**, Human Biology: Concepts and Current Ethical Issues. OpenStax CNX. Aug 28, 2018 <http://cnx.org/contents/735c4455-c240-43d5-885e-8cdf56eb7255@2.1>.

**Malmquist S.** *Flux, Gradient and Resistance*. HAPS Educator, 21(Suppl. 2): 44-49.

**Malmquist S, Abramsson A, McGraw H, Linbo T and Raible, DW.** *Dorsal root ganglia development requires modulation of ErbB signaling by the scaffold protein Sorbs3*. Development, 140(19):3986-96.

**ABSTRACTS/MEETING PRESENTATIONS**

**Malmquist S and Collins, William F III.** *Interactions Between Student Attitudes, Affect and Outcomes During a Transition to an Active Learning Format in Introductory Physiology*. Poster. Experimental Biology 2017, Chicago, IL. April 2017.

**Malmquist S and Collins, William F III.** *Investigating effects of graduated engagement tools and hybrid flipped classroom format on Student success in a large diverse introductory physiology course*. Roundtable discussion presentation. Society for the Advancement of Biology Education Research International Meeting. Minneapolis, MN. July 2016.

**Malmquist S and Collins, William F III.** *Novel graduated engagement strategy tools for enhancing student learning in a large diverse introductory physiology course*. Poster. Experimental Biology 2016, San Diego, CA. April 2016.

**Malmquist S. and Schivell A.** *Can Students Evaluate Complex Social Issues in a Biological Context? Interdisciplinary Project-based Learning*. Poster. University of Washington Symposium on Teaching and Learning, Seattle WA. April 2013.

- Malmquist S**, Abramsson A, McGraw H, Linbo T and Raible, DW. *The scaffold protein Sorbs3 interacts with ErbB signaling to mediate dorsal root ganglion development*. Poster. 10<sup>th</sup> International Conference on Zebrafish Development and Genetics, Madison, WI. June 2012.
- Malmquist S**, Abramsson A, McGraw H, Linbo T and Raible, DW. *The scaffold protein Sorbs3 mediates ErbB3-dependent dorsal root ganglio development*. Short Talk. Society for Developmental Biology Northwest Meeting, Friday Harbor, WA. March 2011.
- Malmquist S**, Abramsson A, McGraw H, Linbo T and Raible, DW. *Dorsal root ganglia development requires modulation of ErbB signaling by the scaffold protein Sorbs3*. Poster. Neuroscience 2011, Washington, D.C. November 2011.
- Edelman T, Resnick T, **Malmquist S**, and Rougvie A. *identification of heterochronic genes that suppress over-expression of mir-48, a let-7 family miRNA*. Poster. 18<sup>th</sup> International C. elegans meeting. Los Angeles, CA. June 2011.
- Malmquist S**, Abramsson,A, McGraw H, Linbo T and Raible DW. *The scaffold protein Sorbs3 mediates dorsal root ganglion development through coordinating ErbB signals*. Poster. Society for Developmental Biology Northwest Meeting, Friday Harbor, WA. March 2011.
- Malmquist S**, Abramsson, A, McGraw H, Linbo T and Raible DW. *The scaffold protein Sorbs3 mediates dorsal root ganglion development through coordinating ErbB signals*. Poster. 9<sup>th</sup> International Conference on Zebrafish Development and Genetics, Madison WI, June 2010.
- Malmquist S**, Abramsson A, McGraw H, Linbo T and Raible DW. *The scaffold protein Sorbs3 mediates dorsal root ganglion development through coordinating ErbB signals*. Poster. Society for Developmental Biology Northwest Meeting, Friday Harbor, WA. March 2010.
- Edelman T, **Malmquist S**, Rougvie A. *Identification of heterochronic genes that suppress overexpression of mir048, a let-7 family miRNA*. Poster. 17<sup>th</sup> international C. elegans meeting. Los Angeles, CA. June 2009.
- Resnick, T, **Malmquist S**, Rougvie A. *Developmental timing genes identified through miRNA suppressor screens in C. elegans*. Poster. Society for Developmental Biology Meeting, San Francisco CA, July 2009.
- Malmquist S**, Abramsson, A, McGraw H, Linbo T and Raible DW. *The zebrafish ouchless mutation affects sorbs3 expression and ErbB3 signaling*. Poster. Society for Developmental Biology Northwest Meeting, Friday Harbor, WA. March 2009.
- Resnick T, **Malmquist S**, Rougvie A. *Identification of heterochronic genes through miRNA suppressor screens*. Poster. Developmental Timing Conference, Janelia Farm Research Campus, Ashburn, VA. May 2008.
- McCulloch K, Tennessen J, **Malmquist S** and Rougvie A. *investigating the role of lin-42 and its interactions in developmental timing*. Poster. 16th International C. elegans meeting, Los Angeles, CA. August 2007.
- Malmquist S**, Ketel C, Miller E and Simon J. *Mutational analysis of a drosophila transcriptional repressor complex*. Poster. University of Minnesota Undergraduate Research Symposium, Minneapolis, MN. May 2004.

### **WORKSHOP PRESENTATIONS**

- Malmquist, S.** *Formative assessment with Clickers: Not Just for Taking Attendance*. Stony Brook University Assessment Symposium, Stony Brook, NY. February 19, 2016.
- Malmquist, S.** *Evidence-Based Teaching and Active Learning*. Stony Brook University College Teaching Seminars, Stony Brook, NY. February 3 and February 10, 2015

### **UNIVERSITY AND COMMUNITY SERVICE**

**Biology Teaching and Learning Curriculum and Teaching Committee, 2019**

**Biology Teaching and Learning Career Promotion Committee, Fall 2018-present**

**College in the Schools Physiology Guest Lecturer and Advisor;** College of Continuing and Professional Studies, University of Minnesota Twin Cities, Fall 2017-present

**IMPACT student group advisor,** Mayo Clinic, Fall 2017-Spring 2018

**Faculty Search Committee Member,** Lecturer, SBU Department of Neurobiology and Behavior, Spring 2017

**Neurobiology Undergraduate Education Committee,** 2016-2017

**SBU College of Arts and Sciences Undergraduate Curriculum Committee Member,** 2014-2017

**Staff Search Committee Member,** Senior Instructional Designer, SBU Faculty Center, Fall 2015

**Staff Search Committee Member,** Assistant Curator, SBU Undergraduate Biology Labs, Fall 2015

**Faculty Judge,** SBU Postdoc Spotlight Talks, November 2015

**Reader,** Undergraduate Honors Theses in Biology, 6 students, 2014-2017

**Faculty Advisor,** SBU Neuroscience Axis (Undergraduate Neurobiology Club), 2014-2017

**Eastern Long Island Mini Maker Faire Volunteer/Volunteer Coordinator,** Summers 2015, 2016, 2017

**Coordinator,** Department of Neurobiology and Behavior Outreach, various projects including science outreach and mentorship projects with K12 students in two local high-needs school districts, March 2015-2017

**GRANTS, FELLOWSHIPS AND AWARDS**

**American Society for Microbiology Biology Scholar in Education Research** 2016

**National Academies Fellow in Science Education** 2013-2014

**Stony Brook University TALENT Grant,** 2014

**Science Communication Fellowship,** Pacific Science Center, 2012-2013

**Best Graduate Student Presentation,** Northwest Developmental Biology Meeting 2011

**NIH Predoctoral Developmental Biology Training Grant,** University of Washington 2009-2012

**OTHER EXPERIENCE/ACTIVITIES**

**AACR faculty learning community member,** Stony Brook University, 2015-2017

**IRACDA pedagogy journal club,** Stony Brook University, 2015-2017

**Biology Education Research Group,** University of Washington-Seattle, 2012-2014

**Brain Awareness Week Volunteer,** Hearing and the Brain presenter, Seattle 2012/2013

**Expanding Your Horizons Volunteer,** STEM activities for middle school girls, Seattle 2009