

Andrea Hodgins-Davis, PhD

830 N University Ave, Natural Sciences Building Room 1061, Ann Arbor, MI 48109
email: andreahd@umich.edu

Current position: Postdoctoral Associate, Wittkopp Lab May 2014-Present

Wittkopp Laboratory, Dept of Ecology and Evolutionary Biology, University of Michigan

- NIH NRSA Postdoctoral Fellowship award for project titled “Environment-specific effects of new mutations on gene expression” 2015-2018

Graduate work, Yale University, 2007-2014

Townsend Laboratory, Dept of Ecology and Evolutionary Biology

Thesis: “*The evolution of gene expression plasticity in Saccharomyces: transcriptional reaction norms to copper*” PhD defense Dec 2013, degree conferred May 2014.

Professional research experience 2003-2007

- Research Assistant, Gerlach Laboratory, Marine Biological Laboratory, Woods Hole, MA 2004-2007
- Acoustician & Research Technician, Dr. Patrick Miller, Marineland Killer Whale Mimicry Training Program, Antibes, France, 2003

B.A. Wellesley College, Biological Sciences with Honors, 2000-2004

Thesis: “*An analysis of the vocal repertoire of the captive killer whale population at Marineland of Antibes, France*”

Publications

9. Hodgins-Davis, Rice, Townsend. 2015. Gene expression evolves under a House-of-Cards model of stabilizing selection. **Mol Biol Evol.** 32 (8): 2111-2129. [Cover image]
8. Hodgins-Davis, Adomas, Warringer, Townsend. 2012. Abundant gene-by-environment interactions in gene expression reaction norms to copper within *Saccharomyces cerevisiae*. **Genome Biol Evol.** 4 (11):1061-1079.
7. Westerman, Hodgins-Davis, Dinwiddie, Monteiro. 2012. Biased learning affects mate choice in a butterfly. **PNAS.** 109(27): 10948–10953.
6. Hodgins-Davis, Townsend. 2009. Evolving gene expression: from G to E to G x E. **TREE.** 24(12):649-658.
5. Gerlach, Hodgins-Davis, Avolio, Schunter. 2008. Kin recognition in zebrafish: a 24 hour window for olfactory imprinting. **Proc Roy Soc B.** 275(1647): 2165-2170.
4. Gerlach, Hodgins-Davis, MacDonald, Hannah. 2007. Benefits of kin association: related and familiar zebrafish larvae (*Danio rerio*) show improved growth. **Behav Ecol Sociobiol.** 61(11): 1765-1770.
3. Weiss, Bennie, Hodgins-Davis et al. 2007. Characterization of new SSR-EST markers in cod, *Gadus morhua*. **Mol Ecol Notes.** 7(5):866-867.

2. Hodgins-Davis, Roberts, Cowan, et al. 2007. Characterization of SSRs from the American lobster, *Homarus americanus*. **Mol Ecol Notes**. 7(2):330-332.
1. Brown, Hodgins-Davis, Miller. 2006. Classification of vocalizations of killer whales using dynamic time warping. **JASA**. 119(3):EL34-40.

Honors and Awards

2015 NIH NRSA Postdoctoral Fellowship
2014 AGA Travel Grant for travel to Ecological Genomics 2014 meeting
2012 NSF Travel Grant for travel to Ecological Genomics 2012 meeting
2008 NSF Graduate Research Fellowship Program Honorable Mention
2007 NSF Graduate Research Fellowship Program Honorable Mention
2004 Lingos Prize in Life Sciences for Independent Biological Research
2004 Wellesley College Biological Sciences Departmental Honors
2003 Schiff Fellowship from Jerome A Schiff Charitable Trust

Professional Societies

Society for Molecular Biology and Evolution member since 2012
Society for the Study of Evolution member since 2012
Mycological Society of America member since 2012

Service and Science Outreach Activities

- External reviewer for NSF Division of Environmental Biology, Sept 2016
- Reviewer for PLoS Genetics, Molecular Biology and Evolution, Genome Biology and Evolution, Nucleic Acids Research, Frontiers in Genetics, PLoS One
- Detroit Zoo Science Communication Fellow, Spring 2015 through present
- University of Michigan FEMMES Capstone activity volunteer doing science outreach for girls Fall 2014, 2015, 2016
- Evolution Outreach Group at Yale, team founding member, 2011-2014
- Yale Graduate Writing Center Fellow, 2012-2013
- Science Mentor for New Haven Science Fair, 2007–2008

Teaching experience

- University of Michigan EEB404: Evolution, Genetics, and Development, co-instructor of record with postdoc Jennifer Lachoweic, Fall 2015
- Preparing Future Faculty seminar hosted by the University of Michigan Center for Learning and Teaching including intensive 6 week study of teaching practices and philosophies
- Yale Biol103/Biol104 Teaching Scholar for Introductory Developmental Bio and Ecology and Evolution modules, Spring 2013
- Yale EEB240/440: Animal Behavior Teaching Fellow for Prof Suzanne Alonzo, Fall 2008 & 2012 writing intensive course
- Yale EEB150: Genomics, Evolution, and Human Biology Teaching Fellow for Prof Howard Ochman, Spring 2012 writing intensive course
- Yale EEB123: Lab for Principles of Evolution, Ecology and Behavior Teaching Fellow for Prof Marta Wells, Fall 2010

- Yale EEB122: Principles of Evolution, Ecology and Behavior Teaching Fellow for Prof Stephen Stearns, Spring 2009, writing intensive course

Science Mentoring Experience

- Direct supervisor and mentor in Wittkopp Laboratory to:
 - PhD student Jade Diaz (June 2016-present) and
 - PhD rotation student Katie Wozniak (Sept 2016 – present)
- UROP mentor in Wittkopp Laboratory, Sept 2014 – May 2015
 - Daayun Chung, undergraduate student
- Direct supervisor and mentor in Townsend Laboratory, 2009-2013
 - Kade Pettie, wintersession research assistant January 2013
 - Derek Park, Yale undergraduate, Fall 2009-Spring 2011
 - Zelun Wang, high school science fair student Fall 2009-Spring 2010
- Direct supervisor and mentor in Gerlach Laboratory, 2004-2007
 - supervised 12 volunteer full-time interns with high school, undergraduate, and post-graduate preparation including daily collaboration and training in laboratory procedures, data analysis and writing