

Lucas Clayton Wheeler
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EDUCATION:

PhD 2017 University of Oregon, Chemistry and Biochemistry
B.S. 2012 Montana State University, Chemistry and Biochemistry

AREAS OF SPECIAL INTEREST:

Evolutionary biology, evolutionary biochemistry, biophysics.

PROFESSIONAL EXPERIENCE:

2014-present PhD candidate & Graduate Research Fellow, University of Oregon
2012-2013 PhD student & Graduate Teaching Fellow, University of Oregon
2009-2012 Undergraduate Research Assistant, Montana State University

AWARDS:

2015 Best student talk at Mechanisms of Protein evolution III meeting
2015 Student travel award to Mechanisms of Protein evolution III
2011-2012 Montana INBRE student research award, Montana State University
2011 Geer-Howald-Callis summer research award, Montana State University
2011 Swager summer research award, Montana State University

PUBLICATIONS:

Hiranmayi Duvvuri, **Wheeler LC**, Harms MJ (2017). Pytc: a python package for the analysis of Isothermal Titration Calorimetry experiments. bioRxiv, 234682

Wheeler LC, Anderson JA, Morrison AJ, Wong CE, Harms MJ (2017) Conservation of specificity in two low-specificity proteins. doi: 10.1021/acs.biochem.7b01086

Wheeler LC, Harms MJ (2017). S100A5 binds Ca²⁺ and Cu²⁺ independently. BMC Biophysics doi: <https://doi.org/10.1186/s13628-017-0040-y>

Wheeler LC, Donor MT, Prell JS, Harms MJ (2016). Multiple Evolutionary Origins of Ubiquitous Cu²⁺ and Zn²⁺ Binding in the S100 protein Family. PLoS ONE 11(10): e0164740. doi:10.1371/journal.pone.0164740

Wheeler LC, An-Lim S, Marqusee S, Harms MJ (2016). The thermostability and specificity of ancient proteins. Curr. Op. Struct. Biol. (LCW and SAL contributed equally to the work)

CONFERENCE PRESENTATIONS:

2017: Society for Molecular Biology and Evolution. Austin Texas.

Poster: *"Phage display and deep sequencing to study the evolution of binding specificity"*

2016: Third International Symposium on Protein Folding and Dynamics. Bangalore, India.

Poster: *"Tracing the evolution of peptide binding specificity in the S100 protein family using phage display and deep sequencing"*

Submitted talk: *"Tracing the evolution of peptide binding specificity in the S100 protein family using phage display and deep sequencing"*

2016: Gibbs Conference on Biological Thermodynamics. Carbondale, Illinois.

Submitted talk: *"Tracing the evolution of peptide binding specificity in the S100 protein family using phage display and deep sequencing"*

2015: Mechanisms of Protein Evolution III: Origins. Denver, Colorado.

Submitted talk: *"Tracing the evolutionary fluctuations of peptide binding specificity in the S100 protein family"* (won prize for best student talk)

2015: Gibbs Conference on Biological Thermodynamics. Carbondale, Illinois.

Poster: *"Tracing the evolutionary fluctuations of peptide binding specificity in the S100 protein family"*

2015: Protein Folding Consortium Workshop. Berkeley, California.

Poster: *"Evolutionary biophysical studies of peptide specificity in the S100 family"*

Submitted talk: *"Probing the evolutionary history of peptide binding specificity in the S100 protein family"*

2014: Gibbs Conference on Biological Thermodynamics. Carbondale, Illinois.

Poster: *"Evolutionary biophysical studies of peptide specificity in the S100s"*

2014: Protein Folding Consortium Workshop. Ann Arbor, Michigan.

Poster: *"Evolutionary biophysical studies of protein function in the S100 family"*

OUTREACH AND OTHER VOLUNTEER ACTIVITIES:

- Co-chair of the Quantitative Problem Solving and Research Communication Consortium at University of Oregon, 2016-present
- ASUO SafeRide program Volunteer, 2016-2017
- Mad Duck Science Fridays, University of Oregon, May 15, 2015
- Presented at the University of Oregon GSA's inaugural GradTalk series. The Barn Light Lounge, Eugene, OR, November 12, 2014
- Mad Duck Science Fridays, University of Oregon, November 22, 2013
- Mad Duck Science Fridays, University of Oregon, October 4, 2013
- Undergraduate Chemistry Society officer, Montana State University. Helped to organize many outreach activities in elementary, middle, and high school classrooms. 2009-2012