Lucas Clayton Wheeler
(PhD)
lucas.wheeler@colorado.edu
https://lcwheeler.github.io/
...

EDUCATION:

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

AREAS OF SPECIAL INTEREST:
Evolutionary genetics, protein evolution, biochemistry, computational biology.

PROFESSIONAL EXPERIENCE:

2018-present	Postdoctoral researcher, University of Colorado-Boulder
2014-2017	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:

Wheeler LC, Stacey SD (2019). Computational modeling of anthocyanin pathway evolution: Biases, hotspots, and trade-offs. Integrative and Comparative Biology; doi:10.1093/icb/icz049.

Hiranmayi Duvvuri,**Wheeler LC**, Harms MJ (2018). pytc: open source python software for global analyses of isothermal titration calorimetry data. Biochemistry; doi: 10.1021/acs.biochem.7b01264.

Wheeler LC, Anderson JA, Morrison AJ, Wong CE, Harms MJ (2017) Conservation of specificity in two low-specificity proteins. Biochemistry; 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 Cu 2+ and Zn 2+ 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:

2019: Evolution. Providence, Rhode Island.
Submitted talk: *"Preferential fixation of structural or regulatory mutations depends on pathway position"*

2019: Society for Integrative and Comparative Biology. Tampa, Florida.
Submitted talk: *"Computational modeling of anthocyanin pathway evolution"*

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:

- Member of Golden, CO chapter of Citizens' Climate Lobby, 2018-present
- Volunteer chemistry lab organizer for the CU Upward Bound program, 2018
- Co-chair of the Quantitative Problem Solving and Research Communication Consortium at University of Oregon, 2016-2017
- 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