

CURRICULUM VITAE

Zhou Li

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Education:

- 2014: Ph.D. Genome Science & Technology, University of Tennessee, Knoxville
Advisors: Dr. Chongle Pan and Dr. Robert Hettich
- 2009: Master's study, Microbiology, Central South University, China
Advisor: Dr. Xueduan Liu
- 2007: B.E., Plant & Animal Quarantine, Hunan Agricultural University, China

Professional Experience:

- 2014-present: Postdoctoral Research Associate, Oak Ridge National Laboratory
Advisor: Dr. Chongle Pan
- 2011-2014: Graduate Research Assistant, University of Tennessee-Oak Ridge National
Laboratory. Advisor: Robert Hettich and Chongle Pan
- 2010-2011: Graduate Teaching Assistant, University of Tennessee

Ad hoc Reviewer for:

*Journal of Proteome Research, Proteomics, Journal of Proteomics, BMC Microbiology,
Microbiome, Scientific Reports*

Award:

- 2014: Science Alliance Award, University of Tennessee

Workshop:

- 2016: Microbial Proteomics Workshop, Arizona State University. (co-organizer)

Oral Presentation:

- 2015: "Integrated proteomics/metabolomics reveals nitrogen and carbon metabolism in
Mortierella elongate and *C. Glomeribacter sp.* symbiotic system" at the 8th International

Conference on Mycorrhiza, Flagstaff, AZ.

Research Interest:

My research has focused on development and application of multi-omics-based approaches (metagenomics, metaproteomics, and metabolomics) for characterization of a range of biological systems, with a major interest in understanding microbial ecology in soil microbial communities.

Publications:

- 1) Samuel Bryson, **Zhou Li**, Francisco Chavez, Peter K. Weber, Jennifer Pett-Ridge, Robert L. Hettich, Chongle Pan, Xavier Mayali, Ryan S. Mueller. Phylogenetically conserved resource partitioning in the coastal microbial loop. *The ISME Journal* (2017)
- 2) **Zhou Li**, Qiuming Yao, Stephen P. Dearth, Matthew R. Entler, Hector F. Castro Gonzalez, Jessie K. Uehling, Rytas J. Vilgalys, Gregory B. Hurst, Shawn R. Campagna, Jessy L. Labbé, Chongle Pan. Integrated Proteomics and Metabolomics Suggests Symbiotic Metabolism and Multimodal Regulation in a Fungal-Endobacterial System. *Environmental Microbiology* (2016)
- 3) Annika C. Mosier, Christopher Miller, Kyle Frischkorn, Robin Ohm, **Zhou Li**, Kurt LaButti, Alla Lapidus, Anna Lipzen, Cindy Chen, Jennifer Kaplan, Erika Lindquist, Chongle Pan, Robert Hettich, Igor V. Grigoriev, Steven Singer, Jillian Banfield. Fungi contribute critical but spatially varying roles in nitrogen and carbon cycling in acidic environments. *Frontiers in Microbiology*. (2016)
- 4) Cristina N. Butterfield, **Zhou Li**, Peter Andeer, Susan Spaulding, Brian C. Thomas, Andrea Singh, Robert Hettich, K. Blake Suttle, Alexander J. Probst, Susannah Tringe, Trent Northen, Chongle Pan, Jillian F. Banfield. Proteogenomic analyses indicate bacterial methylotrophy and archaeal heterotrophy are prevalent below the grass root zone. *PeerJ*. (2016)
- 5) Jeffrey J. Marlow, Connor T. Skennerton, **Zhou Li**, Karuna Chourey, Robert L. Hettich, Chongle Pan, Victoria J. Orphan. Proteomic Stable Isotope Probing Reveals Biosynthesis Dynamics of Slow Growing Methane Based Microbial Communities. *Frontiers in Microbiology*. (2016)
- 6) Samuel Bryson, **Zhou Li**, Jennifer Pett-Ridge, Robert Hettich, Xavier Mayali, Chongle Pan, Ryan Mueller. Proteomic-based stable isotope probing reveals taxonomically distinct patterns in amino acid assimilation by coastal marine bacterioplankton. *mSystems*. (2016)
- 7) Annika C. Mosier, **Zhou Li**, Brian C. Thomas, Robert L. Hettich, Chongle Pan, Jillian F. Banfield. “Elevated temperature alters proteomic responses of individual organisms within a biofilm community”. *The ISME Journal*. (2015)
- 8) Weili Xiong, Paul E. Abraham, **Zhou Li**, Chongle Pan and Robert L. Hettich. Microbial metaproteomics for characterizing the range of metabolic functions and activities of human gut microbiota. *Proteomics*. (2015)
- 9) Ryan S. Mueller, Sam Bryson, Brandon Kieft, **Zhou Li**, Jennifer Pett-Ridge, Francisco Chavez, Robert L. Hettich, Chongle Pan, Xavier Mayali. Metagenome sequencing of a

- coastal marine microbial community from Monterey Bay, California. *Genome Announcement*. (2015)
- 10) **Zhou Li**, Yingfeng Wang, Qiuming Yao, Nicholas B. Justice, Tae-Hyuk Ahn, Dong Xu, Robert L. Hettich, Jillian F. Banfield, Chongle Pan. “Diverse and divergent protein post-translational modifications in two growth stages of a natural microbial community”. *Nature Communications*. (2014)
 - 11) Nicholas Justice, **Zhou Li**, Yingfeng Wang, Susan Spaudling, Annika Mosier, Robert Hettich, Chongle Pan, Jillian Banfield. “¹⁵N- and ²H proteomic stable isotope probing links nitrogen flow to archaeal heterotrophic activity”. *Environmental Microbiology*. (2014)
 - 12) Morgan M. Steffen, Stephen Dearth, Brian Dill, **Zhou Li**, Kristen Larsen, Shawn Campagna, Steven Wilhelm. “Nutrients drive transcriptional changes that maintain metabolic homeostasis but alter genome architecture in *Microcystis*”. *The ISME Journal*. (2014)
 - 13) **Zhou Li**, Olaf Czarnecki, Karuna Chourey, Jun Yang, Gerald A. Tuskan, Gregory B. Hurst, Chongle Pan, Jin-Gui Chen. “Strigolactone-regulated Proteins Revealed by iTRAQ-based Quantitative Proteomics in Arabidopsis”. *Journal of Proteome Research*. (2014)
 - 14) Yingfeng Wang, Tae-Hyuk Ahn, **Zhou Li**, Chongle Pan. Sipros/ProRata: a versatile informatics system for quantitative community proteomics. *Bioinformatics*. (2013).
 - 15) Morgan M. Steffen, **Zhou Li**, T. Chad Effler, Loren J. Hauser, Gregory L. Boyer, Steven W. Wilhelm. Comparative metagenomics of toxic freshwater cyanobacteria bloom communities on two continents. *PLoS One*. (2012)
 - 16) **Zhou Li**, Rachel M. Adams, Karuna Chourey, Gregory B. Hurst, Robert L. Hettich, Chongle Pan. Systematic comparison of label-free, metabolic labeling, and isobaric chemical labeling for quantitative proteomics on LTQ Orbitrap Velos. *Journal of Proteome Research*. (2012)