
KIMBERLY ROSS, Ph.D.

Postdoctoral Research Associate
Department of Molecular, Cellular & Developmental Biology
Box 347 UCB, University of Colorado, Boulder, CO 80309
Cell Phone: 303-956-2622
kimberly.ross@colorado.edu

Education:

Ph.D. Molecular, Cellular & Developmental Biology, University of Colorado - Boulder
August 10, 2013

Dissertation: Molecular Phylogenetic Analysis of Drinking Water Distribution Ecosystems

Advisor Dr. Norman Pace

B.S. Chemistry & Biochemistry, Montana State University - Bozeman, 2002

Professional Interests:

Molecular Ecology, Microbial Phylogenetics and Genomics, Metagenomics, Biotechnology, Bioinformatics, Water Quality, Wastewater and Reclaimed Water Quality, Ecosystems Preservation and Remediation, Environmental Science, Science Education, Public Outreach for Interpretation of Scientific Literature

Research Publications:

- **Ross KA**, Feazel LM, Robertson CE, Fathepure BZ, Wright KE, Turk-Macleod RM, Chan MM, Held NL, Spear JR, Pace NR. *Phototrophic phylotypes dominate mesothermal microbial mats associated with hot springs in Yellowstone National Park*. Accepted, January 16 2012, Microbial Ecology. DOI: 10.1007/s00248-012-0012-3
- Holinger EP, **Ross KA**, Robertson CE, Stevens MJ, Harris JK, and Pace NR. *Molecular Analysis of Drinking Water Distribution System Microbiology across the South-Central United States*. Submitted, August 2013.
- Baron JL, Harris JK, Holinger EP, Duda S, Stevens MJ, Robertson CE, **Ross KA**, Pace NP, Stout JE. *Use of pyrosequencing to determine the effects of monochloramine treatment on Legionella and associated bacterial population in a hospital hot water system*. In preparation, August 2013.
- Tomassini L, Besser TE, Call DR, Harris JK, **Ross KA**, Lee SS, Sischo WM. *Perspectives on multivariate analyses of rectal microbiota from preweaned dairy calves*. In preparation, August 2013.

Honors & Awards:

2006 - 2008 RNA Science Training Grant, MCD Biology, University of Colorado - Boulder
2002 Department of Chemistry Undergraduate Honors
2000 & 2001 Geer/Howald/Callis Award, Outstanding Undergraduate Research
1999 OE Sheppard Award; Promising Freshman Student of Chemistry

Teaching and Related Experience:

2007 (Su) Student, Marine Biological Laboratory 'Microbial Diversity' Course; Wood's Hole, MA
2005 (F) Teaching Assistant, Cell Biology, University of Colorado - Boulder
2006 (Sp) Teaching Assistant, Biology of Human Cancer, University of Colorado - Boulder
2002 - 2005 Teaching Assistantship, Dept. of Chemistry, Montana State University
2002 - 2005 Teaching Assistantship, Dept. of Physics, Montana State University
1998 - 2002 Undergraduate Research & Honors Thesis, Montana State University
2001 (S) National Institute of Health, Summer Internship, Rocky Mt. Nat'l Lab, Hamilton, MT

Abstracts:

- Poster, May 20, 2013. American Society for Microbiology General Meeting, Denver, CO. *Molecular Analysis of Drinking Water Distribution System Microbiology across the South-Central United States.*
- Invited speaker, Young Investigator Award, June 17, 2012. American Society for Microbiology General Meeting, San Francisco, CA. *Municipal Water Distribution Networks as Microbial Ecosystems.*
- Poster, March 25, 2011. Keystone Symposium: Microbial Communities as Drivers of Ecosystem Complexity. Breckenridge, CO. *Microbial Biogeography of Municipal Water Delivery.*

Presentations:

- 'Ignite' speaker, August 7, 2013, Ecological Society of America 98th Annual Meeting, Minneapolis, MN. *Molecular ecology of drinking water distribution ecosystems – How ecological studies can inform engineered systems.*
- Young Investigator Award, June 17, 2012. American Society for Microbiology General Meeting, San Francisco, CA. *Municipal water distribution networks are microbial ecosystems.*
- Invited speaker, March 12, 2012. Environmental Engineering Seminar Series, Boulder CO. *Molecular microbial ecology of drinking water distribution systems.*
- Invited speaker, March 10, 2011. The Consortium for Research and Education on Emerging Contaminants (creec.net). Denver, CO. *Microbial surveillance in municipal drinking water – A sequence-based view.*

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- Invited speaker, February 18, 2011. Biodiversity Symposium. University of Colorado – Boulder. Microbial Diversity and the Biosphere.
 - Speaker, April 24, 2010. Rocky Mountain Branch ASM, Annual Spring Meeting. Colorado State University, Fort Collins. Municipal Water Systems and Public Health: do opportunistic pathogens pose a risk?
 - Speaker, October 17, 2009. Molecular, Cellular and Developmental Biology Departmental Retreat. Breckenridge, Colorado. Microbiology and Public Health in the 21st Century: Molecular methods for the microbial world.
 - Speaker, April 25, 2009. Rocky Mountain Branch ASM, Annual Spring Meeting. University of Northern Colorado, Greeley. Water Quality Monitoring in the 21st century: Into the microbial world.

Professional Organizations:

American Association for the Advancement of Science

American Society of Microbiology

American Society of Civil Engineers

American Water Works Association

Colorado BioScience Association

Ecological Society of America

Engineers Without Borders

The Consortium for Research and Education on Emerging Contaminants

Union of Concerned Scientists

Other Activities

National Registry of Emergency Medical Technicians (Licensed, 2002 – current)

Lead student organizer of Microbiology Supergroup at CU Boulder; 2007-2010

Supervised undergraduate research projects and honors theses -

- Alex Greenspan; Evaluation of the Heterotrophic Plate Count Test for Drinking Water Safety: Comparing Culture-based vs. Molecular Methods for Identifying Bacteria; Defended April 1, 2011
- Reece Gesumaria; Microbiology of Bottled Water: A Molecular View; Defended April 4, 2011