

W. Matthew Sattley

Associate Professor of Biology
Indiana Wesleyan University
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Professional Experience

Associate Professor of Biology (July 2010 – present)

Division of Natural Sciences
Indiana Wesleyan University
4201 South Washington St.
Marion, IN 46953

Assistant Professor of Biology (July 2008 – July 2010)

Department of Science and Mathematics
MidAmerica Nazarene University
2030 East College Way
Olathe, KS 66062

Postdoctoral Research Associate (August 2006 – July 2008)

Department of Biology
Washington University in St. Louis
St. Louis, MO 63130
Research focus: Genomic analyses, light-harvesting strategies, and energy production
in extremophilic, anoxygenic, photosynthetic bacteria.
Advisor: Professor Robert E. Blankenship

Education

July 2006, Ph.D., *Molecular Biology, Microbiology, and Biochemistry*

Department of Microbiology
Southern Illinois University, Carbondale, IL
Dissertation: Microbiology of Sulfur Cycling and Other Biogeochemical Processes in
Dry Valleys Lakes of Antarctica
Advisor and Mentor: Professor Michael T. Madigan

May 1998, B.A., *Biology - Magna cum Laude*

Blackburn College, Carlinville, IL
Advisor: Professor Edward J. Zalisko

December 1995, A.A.

Kaskaskia College, Centralia, IL

Relevant Experience and Skills

- Studies emphasize microbial ecology and diversity with a specialization in the culture and characterization of extremophilic sulfur-cycling, fermentative, and phototrophic prokaryotes
- Experienced with many general microbiological techniques, including enrichment culture techniques, aseptic manipulation of both aerobic and anaerobic bacterial cultures, environmental sampling, biogeochemical assays, isolation and characterization of species, and phase contrast microscopy
- Experienced with molecular biology techniques, including polymerase chain reaction, DNA and SDS-PAGE gel electrophoresis, gene purification and sequencing, phylogenetic analyses, and genomic analysis and annotation
- Experienced in the use and safe handling of radioisotopes
- Have Antarctic fieldwork experience, including three seasons researching permanently frozen lakes in the McMurdo Dry Valleys

Research Interests

- Microbial ecology and diversity of extreme environments
- Novel culturing strategies for the isolation of ecologically and biogeochemically important microorganisms, including species that contribute to primary production or perform key roles in nutrient cycling
- Mechanisms of cold adaptation among psychrophilic microorganisms
- Mechanisms of anoxygenic photosynthesis in extreme environments
- Nutrient dynamics and species interactions in microbial ecosystems
- Phylogenetic characterization of prokaryotes
- Genomic analyses of phototrophic bacteria

Professional Memberships and Awards

- American Society for Microbiology (ASM), member, March 2002 – present
- ASM Indiana Regional Branch, member, January 2011 – present
- Indiana Academy of Science, member, February 2011 – present
- ResearchGate (www.researchgate.net), member, 2010 – present
- Received Hodson Summer Research Institute Awards for 2011, 2012, and 2013 (IWU)
- Recipient of 2011–2012 Lilly Faculty Scholarship Award (IWU)
- Selected to participate in the 2011 ASM/JGI Functional Genomics Institute
- Recipient of 2008 Internal Research Grant (MNU)
- Antarctic Service Medal of the United States of America, presented by the National Science Foundation for Service in Antarctica, 2006
- Recipient of 2004–2005 Dissertation Research Assistantship Award (SIUC)
- Who's Who in America
- Who's Who in North American Education

Teaching and Leadership Experience/Contributions

- Courses taught at **Indiana Wesleyan University** and **MidAmerica Nazarene University** include Introductory and General Microbiology (with laboratories), Principles of Biology (with laboratory), Heredity and Disease, Environment and Society (with laboratory), Immunology, Cell Biology, Environmental Science, Advanced Topics in Biology, and Biology Research
- Instructor for annual PMD-310 biology MCAT review for Pre-Medical Science students every January (IWU)
- Supervisor of undergraduate assistants for microbiology laboratory courses at **Indiana Wesleyan University** and **MidAmerica Nazarene University**
- Student advisor for course enrollment and career decisions
- Taught graduate students a variety of bacteriological techniques in an intensive research environment as a postdoctoral research associate at **Washington University in Saint Louis**
- Graduate Teaching Assistant, **Southern Illinois University Carbondale**,
200-Level: Elementary Microbiology Laboratory – 1 semester
300-Level: Principles of Microbiology Laboratory – 1 semester
400-Level: Diagnostic and Applied Microbiology Laboratory – 2 semesters
- Guest lectured 300- and 400-level microbiology courses, **Southern Illinois University Carbondale**

Faculty Development Participation

- Participated in a personal *Via Response* online tutorial to explore the potential of a cloud-based student response platform for classroom use. Indiana Wesleyan University, Marion, IN. May 29, 2013.
- *Integrated Microbial Genomes–Annotation Collaboration Toolkit (IMG–ACT) Regional Training Workshop*. A bioinformatics workshop to introduce faculty to a collaborative, online genome annotation platform designed for use in the undergraduate classroom. Hosted by the American Society for Microbiology and the Joint Genome Institute. The University of Saint Francis, Joliet, IL. November 12–13, 2011.
- *ASM/JGI Functional Genomics Institute*. An intensive workshop designed to provide research-oriented faculty with a working knowledge of strategies to incorporate functional genomics and bioinformatics protocols into undergraduate research programs. Hiram College, Hiram, OH. July 17–21, 2011.
- *The Pedagogy of Faith in the Science Classroom*. A best-practices workshop focusing on relationships between the Christian faith and science. Indiana Wesleyan University, Marion, IN. June 27–29, 2011.
- *Effective Strategies for Course Design and Development*. Indiana Wesleyan University, Marion, IN. May 9, 2011.
- *Introduction to Life Calling*. Workshop exploring the role of life calling in instructional design and student advising. Indiana Wesleyan University, Marion, IN. May 4–5, 2011.
- *Clickers in the Classroom*. Indiana Wesleyan University, Marion, IN. March 23, 2011.
- New Faculty Seminar Course, Indiana Wesleyan University, Marion, IN. Spring 2011, Steve Lennox, facilitator.

- Pearson Education workshop for effective use of *Mastering Biology*, an online teaching tool. Indiana Wesleyan University, Marion, IN. December 17, 2010.
- *Grantsmanship Training Program*. MidAmerica Nazarene University, Olathe, KS. January 4–8, 2010.
- *Writing Across the Curriculum*. Metropolitan Community College, Kansas City, MO. April 18, 2009.
- *Online Instructional Strategies*. Ottawa University, Overland Park, KS. February 7, 2009.
- *Diversity in the Classroom*. Ottawa University, Overland Park, KS. February 6, 2009.
- *Characteristics of Adult Learners*. Baker University, Overland Park, KS. November 15, 2008.
- *Managing the Learning Environment*. Baker University, Overland Park, KS. November 14, 2008.
- *Evaluating Student Learning*. Kansas City Kansas Community College, Kansas City, KS. October 11, 2008.
- *Instructional Strategies*. Kansas City Kansas Community College, Kansas City, KS. October 10, 2008.
- *Time Management and Organizational Skills*. Workshop for postdoctoral associates and new faculty. Washington University in Saint Louis, St. Louis, MO. May 13, 2008.
- *Lab Set-Up and Management*. Workshop for postdoctoral associates and new faculty. Washington University in Saint Louis, St. Louis, MO. April 15, 2008.
- *Lab Finances*. Workshop for postdoctoral associates and new faculty. Washington University in Saint Louis, St. Louis, MO. March 18, 2008.
- *Entering Mentoring*. A course for postdoctoral and new faculty development. Washington University in Saint Louis, St. Louis, MO. Spring, 2008.

University Service

- General Education Committee, School of Physical and Applied Sciences representative, IWU, 2014–2016 (two-year appointment)
- Greenhouse Advisory Committee, IWU, 2014–present
- Division of Natural Sciences Safety Committee, IWU, 2011–present
- University Instructional Technology Council, IWU, 2012–2013
- Microbiology Laboratory Support Adjunct Search Committee, IWU, 2013
- Microbiology Laboratory Teaching Adjunct Search Committee, IWU, 2012
- Biology Faculty Search Committee, IWU, 2012
- Biology Faculty Search Committee, MNU, 2010
- Faculty Development Committee, MNU, 2009–2010
- Zoology laboratory live animal curator, MNU, 2008–2010
- Chair, search committee for annual student-invited seminar series speaker, SIUC, 2005–2006
- Zoology laboratory live animal curator, Blackburn College, 1997–1998

Service to the Profession

- Consulted as a reviewer for research manuscripts submitted to numerous scholarly journals, including *Photosynthesis Research*, *FEMS Microbial Ecology*, *Antonie van Leeuwenhoek*, *Applied Microbiology and Biotechnology*, *Environmental Microbiology Reports*, and the *International Society for Microbial Ecology (ISME) Journal*.
- External grant proposal reviewer for the Astrobiology: Exobiology and Evolutionary Biology (EXO) program for NASA. February 2011.
- External grant proposal reviewer for the Chilean Antarctic Institute (INACH) National Fund for Scientific and Technological Research in Antarctica. July and August 2009.
- Evaluated graduate student research presentations for the Annual Meeting of the Missouri Valley Branch of the American Society for Microbiology. University of Kansas, Lawrence, KS. March 27–28, 2009.
- Judged junior high and high school student science projects for the Berean Christian School Science Fair, Olathe, KS. March 5, 2010.
- Judged junior high and high school student science projects for the Illinois Junior Academy of Science Region 8 Science Fair: 2001, 2002, 2004, 2005, and 2006.
- Developed and coordinated an introductory microbiology workshop designed to introduce children to microscopic forms of life. New Prairie Community of Faith Free Methodist Church, Carbondale, IL. June 19, 2005.

Published Research Articles and Book Chapters

Vander Schaaf NA, Cunningham AMG, Reeves CL, Kraemer CK, Cluff BP, Slater LK, Riester CJ and Sattley WM. Cold-active, chemoorganotrophic bacteria from oligotrophic waters of Lake Vanda, Antarctica. *Submitted*

Sattley WM and Madigan MT (2014) Family *Heliobacteriaceae*. In: Rosenberg E, DeLong EF, Lory S, Stackebrandt E and Thompson F (eds), *The Prokaryotes*, 4th edn. Springer, New York. *In press*

Sattley WM, Asao M, Tang KH and Collins AM (2014) Energy conservation in heliobacteria: Photosynthesis and central carbon metabolism. In: Hohmann-Marriott MF (ed), *The Structural Basis of Biological Energy Generation. Advances in Photosynthesis and Respiration*, vol. 39, pp. 231–247. Springer, Dordrecht.

Sattley WM and Swingley WD (2013) Properties and evolutionary implications of the heliobacterial genome. In: Beatty JT (ed), *Genome Evolution of Photosynthetic Bacteria. Advances in Botanical Research*, vol. 66, pp. 67–97. Academic Press, Elsevier, Ltd. (*Includes contribution to book cover design*)

Sattley WM and Madigan MT (2010) Temperature and nutrient induced responses of Lake Fryxell sulfate-reducing prokaryotes and description of *Desulfovibrio lacusfryxellense* sp. nov., a pervasive, cold-active, sulfate-reducing bacterium from Lake Fryxell, Antarctica. *Extremophiles* 14: 357–366

- Sattley WM and Blankenship RE (2010) Insights into heliobacterial photosynthesis and physiology from the genome of *Heliobacterium modesticaldum*. *Photosynthesis Research* 104: 113–122
- Sattley WM, Jung DO and Madigan MT (2008) *Psychrosinus fermentans* gen. nov., sp. nov., a lactate-fermenting bacterium from near-freezing oxycline waters of a meromictic Antarctic lake. *FEMS Microbiology Letters* 287: 121–127
- Sattley WM, Madigan MT, Swingley WD, Cheung PC, Clocksin KM, Conrad AL, Dejesa LC, Honchak BM, Jung DO, Karbach LE, Kurdoglu A, Lahiri S, Mastrian SD, Page LE, Taylor HL, Wang ZT, Raymond J, Chen M, Blankenship RE and Touchman JW (2008) The genome of *Heliobacterium modesticaldum*, a phototrophic representative of the *Firmicutes* containing the simplest photosynthetic apparatus. *Journal of Bacteriology* 190: 4697–4696
- Swingley WD, Chen M, Cheung PC, Conrad AL, Dejesa LC, Hao J, Honchak BM, Karbach LE, Kurdoglu A, Lahiri S, Mastrian SD, Miyashita H, Page L, Ramakrishna P, Satoh S, Sattley WM, Shimada Y, Taylor HL, Tomo T, Tsuchiya T, Wang ZT, Raymond J, Mimuro M, Blankenship RE and Touchman JW (2008) Niche adaptation and genome expansion in the chlorophyll *d*-producing cyanobacterium *Acaryochloris marina*. *Proceedings of the National Academy of Sciences of the USA* 105: 2005–2010
- Sattley WM and Madigan MT (2007) Cold active acetogenic bacteria from surficial sediments of perennially ice-covered Lake Fryxell, Antarctica. *FEMS Microbiology Letters* 272: 48–54
- Sattley WM and Madigan MT (2006) Isolation, characterization, and ecology of cold-active, chemolithotrophic, sulfur-oxidizing bacteria from perennially ice-covered Lake Fryxell, Antarctica. *Applied and Environmental Microbiology* 72: 5562–5568
- Karr EA, Ng JM, Belchik SM, Sattley WM, Madigan MT and Achenbach LA (2006) Biodiversity of methanogenic and other *Archaea* in the permanently frozen Lake Fryxell, Antarctica. *Applied and Environmental Microbiology* 72: 1663–1666
- Madigan MT, Jung DO, Karr EA, Sattley WM, Achenbach LA and van der Meer MTJ (2005) Diversity of anoxygenic phototrophs in contrasting extreme environments. In: Inskeep W and McDermott T (eds), *Geothermal Biology and Geochemistry in Yellowstone National Park*. Proceedings of the Thermal Biology Workshop, Yellowstone National Park, WY, October 2003, pp 203–219. Thermal Biology Institute, Montana State University Publications, Bozeman, MT.
- Karr EA, Sattley WM, Rice MR, Jung DO, Madigan MT and Achenbach LA (2005) Diversity and distribution of sulfate-reducing bacteria in permanently frozen Lake Fryxell, McMurdo Dry Valleys, Antarctica. *Applied and Environmental Microbiology* 71: 6353–6359
- Karr EA, Sattley WM, Jung DO, Madigan MT and Achenbach LA (2003) Remarkable diversity of phototrophic purple bacteria in a permanently frozen Antarctic lake. *Applied and Environmental Microbiology* 69: 4910–4914

Pedagogical Publications and Other Contributions

Sattley WM, Gulvik CA, Seston SL and Jordan HW (2014) Instructor's Manual and Test Bank for *Brock Biology of Microorganisms*, 14/e. (Madigan, Martinko, Bender, Buckley, and Stahl, Pearson Education, Inc., San Francisco, CA).

Renbarger TL and Sattley WM (2012) *Introductory Microbiology Laboratory Manual*. A laboratory manual used in the Introductory Microbiology course at Indiana Wesleyan University.

Sattley WM and Gulvik CA (2011) Instructor's Manual and Test Bank for *Brock Biology of Microorganisms*, 13/e. (Madigan, Martinko, Stahl, and Clark, Pearson Benjamin Cummings, San Francisco, CA).

Sattley WM and Madigan MT (2008) Antarctic sulfur-chemolithotroph *Thiobacillus thioparus* strain FTL9 properly streaked for isolation on a petri plate using the four-quadrant streak method. Atlas. American Society for Microbiology, Washington D.C. www.microbelibrary.org, a peer-reviewed, online resource for microbiology students and instructors.

Sattley WM and Howard M (2008) *Principles of the Microbiology Laboratory*. Laboratory manual used in the general microbiology course at MidAmerica Nazarene University.

Sattley WM and Jung DO. Images showing a positive enrichment culture and agar shake tube dilution of sulfate-reducing bacteria with concomitant precipitation of ferrous sulfide. In: *Brock Biology of Microorganisms*, 11/e (Madigan and Martinko, 2006, Pearson Prentice Hall, Upper Saddle River, NJ), 12/e (Madigan, Martinko, Dunlap, and Clark, 2009, Pearson Benjamin Cummings, San Francisco, CA), 13/e (Madigan, Martinko, Stahl, and Clark, 2012, Pearson Benjamin Cummings, San Francisco, CA), and 14/e (Madigan, Martinko, Bender, Buckley, and Stahl, 2015, Pearson Education, Inc., San Francisco, CA).

- Served as a scientific contributor and consultant for *The American Heritage Dictionary of the English Language*, 5/ed, 2011, Houghton-Mifflin Company, Boston, MA.
- Author and maintain a web site (www.microbiologyblast.info) since fall 2010 that contains useful and relevant information for students of undergraduate microbiology courses, including links to current research articles of interest and audio study guides that may be downloaded directly from the site or through iTunes; to date, over 11,000 downloads have been logged from countries all around the world.
- Served as a reviewer for the textbook *Brock Biology of Microorganisms*, editions 12 and 13 (Pearson Benjamin Cummings, San Francisco, CA).

Manuscripts in Preparation

Sattley WM and Madigan MT. Microbiology. Encyclopedia of Life Sciences. John Wiley and Sons, New York.

Sattley WM, Cunningham AMG, Iwase Y, Lautensack NL and Miller GJ. A collaborative laboratory activity demonstrating the antibacterial effects of extracts from two plant species, *Moringa oleifera* and *Allium sativum* (garlic).

Cunningham AMG, Vander Schaaf NA, Wheeler AC and Sattley WM. A morphologically distinct, β -hemolytic pseudomonad from a permanently ice-covered Antarctic lake.

Sattley WM and Conrad SD. Construction of a low-cost, high-resolution, limnological sampling device.

Textbook in Preparation

Madigan MT, Bender KS, Buckley, DH, Sattley WM and Stahl DA. *Brock Biology of Microorganisms*, 15/e. Pearson Education, Inc., San Francisco, CA.

Invited Oral Presentations

“Microbial carbon and sulfur cycling in permanently ice-covered Antarctic lakes.” Science Lecture Series guest speaker, Taylor University, Upland, IN. September 9, 2013.

“Environmental stewardship and sustainability: A Christian perspective.” Justice Week seminar series guest speaker, Indiana Wesleyan University, Marion, IN. April 10, 2013.

“The microbiology of sulfur and carbon cycling in permanently ice-covered Antarctic lakes.” Seminar series guest speaker, Department of Biological Sciences, Northern Illinois University, DeKalb, IL. March 7, 2013.

“Microbiology of cold-active Antarctic bacteria.” 2nd Hodson Summer Research Institute seminar series speaker, Indiana Wesleyan University, Marion, IN. June 6, 2012.

“From ice to steam: characterizing bacteria from contrasting extreme environments.” Science Forum guest speaker, Division of Natural Sciences, Indiana Wesleyan University, Marion, IN. September 23, 2010.

“The genome of *Heliobacterium modesticaldum*, a thermophilic representative of the simplest phototrophs.” Symposium on heliobacteria in honor of Howard Gest, esteemed researcher of anoxygenic phototrophic bacteria, Department of Biology at Washington University in St. Louis, MO. May 19, 2008.

“The simplest phototroph: A look at the genome of *Heliobacterium modesticaldum*.” Prokaryotic Supergroup guest speaker, Department of Biology at Washington University in St. Louis, MO. February 6, 2008.

“Nutrient-cycling microorganisms from extreme environments: From culturing to genomics.” Seminar series guest speaker, School of Science, Penn State Erie, The Behrend College, Erie, PA. December 3, 2007.

“The complete genome sequence of *Heliobacterium modesticaldum*, an endospore-forming, thermophilic, anoxygenic phototroph.” Session I speaker: Genomes and Evolutionary Aspects, 33rd Annual Midwest/Southeastern Photosynthesis Meeting. Turkey Run State Park, Marshall, IN. November 9, 2007.

“Microbiology of sulfur cycling and other biogeochemical processes in Lake Fryxell, Antarctica.” BioForum guest speaker, Department of Biology at Washington University in St. Louis, MO. September 22, 2006.

“Culture, isolation, and characterization of sulfur-cycling bacteria from Lake Fryxell, Antarctica.” Guest speaker for senior chemistry students at Centralia High School, Centralia, IL. January 14, 2005.

Abstracts and Poster Presentations

Wood BM and Sattley WM (2014) Sulfur-chemolithotrophic bacteria from waters of Lake Hoare, Taylor Valley, Antarctica. Celebration of Scholarship, Indiana Wesleyan University, Marion, IN.

Conover P, Fuller M* and Sattley WM (2014) Cultivation and characterization of chemoorganotrophic bacteria from hypersaline Don Juan Pond, Wright Valley, Antarctica. Celebration of Scholarship. Indiana Wesleyan University, Marion, IN.
**Gave an oral presentation in support of this research poster.*

Vander Schaaf NA and Sattley WM (2014) Cold-active chemoorganotrophic bacteria from oligotrophic waters of Lake Vanda, Antarctica. 129th Annual Indiana Academy of Science Meeting, Indianapolis, IN.

Vander Schaaf NA and Sattley WM (2013) Characterization of six strains of heterotrophic bacteria from Lake Vanda, Antarctica. 3rd Hodson Research Colloquium. Indiana Wesleyan University, Marion, IN.

Miller KEH and Sattley WM (2013) Microbiological analysis of tap water at Indiana Wesleyan University. Celebration of Scholarship. Indiana Wesleyan University, Marion, IN.

Sattley WM and Vander Schaaf NA* (2013) Characterization of six strains of heterotrophic bacteria from Lake Vanda, Antarctica. Celebration of Scholarship. Indiana Wesleyan University, Marion, IN.
**Received “Best Celebration of Scholarship poster presentation” award granted by the IWU Honors College Student Association Academic Committee.*

Sattley WM and Cunningham AMG (2013) Isolation and characterization of eight strains of heterotrophic bacteria from Lake Fryxell, Antarctica. Celebration of Scholarship. Indiana Wesleyan University, Marion, IN.

Iwase Y, Lautensack NL, Sattley WM and Miller GJ (2013) Antibacterial effects of *Moringa* leaf extracts. The Annual Meeting of the Society of Plant Biologists, Providence, RI.

- Cunningham AMG, Vander Schaaf NA and Sattley WM (2013) Cold-active, aerobic, heterotrophic bacteria from perennially ice-covered lakes of the McMurdo Dry Valleys, Antarctica. 128th Annual Indiana Academy of Science Meeting, Indianapolis, IN.
- Reeves C and Sattley WM (2012) New cold-active strains of aerobic, chemoorganotrophic bacteria from two permanently ice-covered Antarctic lakes. Celebration of Scholarship. Indiana Wesleyan University, Marion, IN.
- Riester C and Sattley WM (2012) A cold-active, halotolerant, chemoorganotrophic bacterium from Lake Vanda, Wright Valley, Antarctica. Celebration of Scholarship. Indiana Wesleyan University, Marion, IN.
- Slater L and Sattley WM (2012) Physiological and phylogenetic characterization of a cold-adapted heterotrophic bacterium from an Antarctic lake. Celebration of Scholarship. Indiana Wesleyan University, Marion, IN.
- Wheeler A and Sattley WM (2012) A psychrophilic, metabolically diverse bacterium from the water column of Lake Fryxell, Antarctica. Celebration of Scholarship. Indiana Wesleyan University, Marion, IN.
- Cunningham AMG, Vander Schaaf NA and Sattley WM (2012) Characterization of fourteen strains of Antarctic heterotrophic bacteria. 2nd Hodson Research Colloquium. Indiana Wesleyan University, Marion, IN.
- Miller GJ and Sattley WM (2012) Characterization of the antibacterial properties of *Moringa oleifera* and *Moringa stenopetala* extracts. The Annual Meeting of the Society of Plant Biologists, Austin, TX.
- Riester CJ, Skinner B, Sattley WM, Swingley WD, Madigan MT, Jung DO, Asao M, Chen M, Loughlin P, Pan H, Lin S, Li N, Shaw J, Prado M, Sherman C, Li X, Tang KH, Blankenship RE and Touchman JW (2011) Genomic analysis of the cold-adapted phototrophic bacterium *Rhodospirillum rubrum*. 1st Hodson Research Colloquium. Indiana Wesleyan University, Marion, IN.
- Cluff B, Jacobus D, Means T, Nelson E, Winter K and Sattley WM (2010) Ecology and isolation of cold-active bacteria from permanently ice-covered lakes of Antarctica. 2nd Celebration of Scholarship Faculty Exhibition. MidAmerica Nazarene University, Olathe, KS.
- Kraemer CK, Garland MG and Sattley WM (2009) Hot topics and cool features of bacteria thriving in frozen lakes and hot springs. 2nd Science and Mathematics Undergraduate Research Forum. University of Saint Mary, Leavenworth, KS.
- Samarkin VA, Madigan MT, Sattley WM, Priscu JC, Wand U, Meile C and Joye SB (2008) Peculiarities of microbial biogeochemistry of sulfur and methane in three stratified perennially ice-covered Antarctic lakes: Lake Fryxell, Lake Vanda, and Lake Untersee. Instruments, Methods, and Missions for Astrobiology XI, San Diego, CA.

Sattley WM, Madigan MT, Swingley WD, Cheung PC, Clocksin KM, Conrad AL, Dejesa LC, Honchak BM, Jung DO, Karbach LE, Kurdoglu A, Lahiri S, Mastrian SD, Page LE, Taylor HL, Wang ZT, Raymond J, Chen M, Blankenship RE and Touchman JW (2008) Photosynthesis in its simplest form: Insights from the complete genome of *Heliobacterium modesticaldum*. Gordon Research Conference on Photosynthesis, Mount Holyoke College, South Hadley, MA.

Collins AM, Xin Y, Sattley WM, Montañó G and Blankenship RE (2008) Antenna organization of the chlorosome-lacking filamentous anoxygenic phototroph *Roseiflexus castenholzii*. Gordon Research Conference on Photosynthesis, Mount Holyoke College, South Hadley, MA.

Sattley WM and Madigan MT (2005) Culture of anaerobic respiratory prokaryotes from Lake Fryxell, Dry Valleys, Antarctica. 105th General Meeting of the American Society for Microbiology, Atlanta, GA.

Sattley WM and Madigan MT (2005) Culture and description of novel homoacetogenic and sulfate-reducing bacteria from Lake Fryxell, McMurdo Dry Valleys, Antarctica. 11th Annual Cellular and Molecular Biology Symposium, Pere Marquette State Park, Grafton, IL.

Madigan MT, Jung DO, Karr EA, Sattley WM and Achenbach LA (2003) New anoxygenic phototrophic bacteria from extreme environments including purple non-sulfur bacteria containing gas vesicles. 11th International Symposium on Phototrophic Prokaryotes, Tokyo, Japan.

Sattley WM, Karr EA, Achenbach LA and Madigan MT (2003) Cold-active sulfate-reducing and sulfur-chemolithotrophic bacteria from Lake Fryxell, Dry Valleys, Antarctica. 103rd General Meeting of the American Society for Microbiology, Washington D.C.

Madigan MT, Karr EA, Jung DO, Sattley WM and Achenbach LA (2002) Extremophilic phototrophic and sulfur-cycling prokaryotes from permanently frozen Antarctic lakes and African soda lakes. Microbial Observatory/LExEn Principal Investigators' Workshop, Arlington, VA.