

CURRICULUM VITAE

DENNIS A. BAZYLINSKI

Professor of Microbiology
School of Life Sciences
University of Nevada, Las Vegas
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Education:

B.S. with honors, Northeastern University, Boston, MA, 1976, Biology
M.S., Northeastern University, Boston, MA, 1980, Biology
Ph.D., University of New Hampshire, Durham, NH, 1984, Microbiology

M.S. Thesis:

"The Role of the Caecum and Caecal-associated Cellulolytic and Nitrogen-fixing Bacteria in the Digestive Processes of the Shipworm."

Dr. Fred A. Rosenberg, advisor

Ph.D. Dissertation:

"The Nitrogen Metabolism of *Aquaspirillum magnetotacticum*"

Dr. Richard P. Blakemore, advisor

Awards and Honors:

Graduate Student Speaker Award, 1984, University of New Hampshire

College of Sciences Distinguished Researcher Award, 2011, University of Nevada at Las Vegas

Elected Fellowship of the American Academy of Microbiology, 2014

Barrick Distinguished Scholar Award, University of Nevada at Las Vegas, 2017

Research and Professional Experience:

1973-1979 Food Microbiologist and Chemist, Foods Research Inc., Boston, MA

1976-1979 Teaching Assistant, Biology Department, Northeastern University, Boston, MA: General Biology, Zoology, Microbiology, Virology, Environmental Microbiology, Vertebrate Physiology, Vertebrate Zoology, Anatomy and Physiology

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- 1978-1980 Laboratory Instructor, University College, Northeastern University, Boston, MA: General Biology, General Microbiology
- 1979-1980 High School Teacher, Malden High School, Malden, MA: Biology, Chemistry, Physical Science
- 1980-1983 Teaching Assistant, Department of Microbiology, University of New Hampshire, Durham, NH: General and Medical Microbiology
- 1981-1984 Research Assistant, Department of Microbiology, University of New Hampshire, Durham, NH
- 1984-1986 Postdoctoral Research Associate, Graduate Department of Biochemistry, Brandeis University, Waltham, MA
- 1986-1988 Postdoctoral Investigator, Biology Department, Woods Hole Oceanographic Institution, Woods Hole MA
- 1988-1990 Visiting Investigator, Biology Department, Woods Hole Oceanographic Institution, Woods Hole, MA
- 1990-1993 Assistant Professor, Department of Anaerobic Microbiology, Virginia Polytechnic Institute and State University, Blacksburg, VA
- 1990, August Visiting Scientist, Biology Department, Woods Hole Oceanographic Institution, Woods Hole, MA (Laboratory of Dr. E.F. DeLong)
- 1991, June Participating Faculty, Environmental Magnetism Workshop, Sponsored by the Institute for Rock Magnetism and the Global Palaeorecords Research Training Group, University of Minnesota, Minneapolis, MN
- 1993, January to June Visiting Associate Professor, Department of Chemistry and Chemical Engineering, Stevens Institute of Technology, Hoboken, NJ; Teaching Assignment: Cell Biology
- 1993-1995 Adjunct Associate Research Professor, Marine Science Center, East Point, Nahant, MA (Occasionally taught General Microbiology)
- 1994-1996 Consultant, Synectics Technology Corporation, Denville, NJ
- 1995, August to August 2006 Associate Professor, Department of Microbiology, Iowa State University, Ames, IA; Teaching Assignment: General Microbiology, Biology of Microorganisms, Prokaryotic Diversity, and the Laboratory Modules, Bacterial Cultivation Techniques and Techniques for the Visualization and Fractionation of Bacterial Cells
- 1999, June Participating Faculty, Nové Curs Avançat D'Ecologia Microbiana (Summer Microbial Ecology Course of the University of Barcelona at the Ebro Delta organized by the Catalan Society of Biology), L'Aldea, Spain, June, 1999

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- 2006, August Associate Professor, School of Life Sciences, University of Nevada, Las Vegas, Las Vegas, NV; Teaching Assignment: General Microbiology, Microbial Physiology
- 2007, July Interim Director & Associate Professor, of Life Sciences, University of Nevada, Las Vegas, Las Vegas, NV
- 2008, July Director & Associate Professor, of Life Sciences, University of Nevada, Las Vegas, Las Vegas, NV
- 2009-2015 Director & Professor, School of Life Sciences, University of Nevada, Las Vegas, Las Vegas, NV
- 2015-Present Professor, School of Life Sciences, University of Nevada, Las Vegas, Las Vegas, NV

Participant:

- July-August 1982 Research cruise to investigate the biogeochemistry of sediments in the Gulf of Maine. R/V *CAPE HATTERAS*
- August 1983 Same as July-August 1982
- October 1986 Research cruise to investigate the microbial ecology and biogeochemistry of the West Florida Escarpment cold seep site. R/V *ATLANTIS II-ALVIN* Research cruise #118/2.
- February 1988 Research cruise to investigate the microbial ecology and biogeochemistry of the Guaymas Basin hydrothermal vents. R/V *ATLANTIS II-ALVIN* cruise #118/28.
- May 1988 Research cruise to study the microbiology and chemistry of the Black Sea. R/V *KNORR* cruise #134/12.
- November 1991 Invited participant: Biocorrosion Workshop, Office of Naval Research, Washington, D.C.
- August 1992 Research cruise to study microbial ecology of Chesapeake Bay R/V *CAPE HENLOPEN*
- July 1994 New England BioLabs Molecular Biology and Biotechnology Summer Workshop
- September 1995 Sedimentary Biogeomagnetism Workshop, University of Minnesota, Minneapolis, MN
- May 1996 Invited participant: Biomineralization and Nanofabrication Workshop, Office of Naval Research, California Polytechnic State University, San Luis Obispo, CA
- May 1996 Invited participant: Biomineralization and Nanofabrication Workshop, Office of Naval Research, California Polytechnic State University, San Luis Obispo, CA

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- May 1996 Invited participant: Biomineralization and Nanofabrication Workshop, Office of Naval Research, California Polytechnic State University, San Luis Obispo, CA
- October 1996 Research cruise to study magnetotactic bacteria and endo- and ectosymbiotic bacteria of marine invertebrates at the oxic-anoxic interface in the Santa Barbara Basin R/V *ROBERT GORDON SPROWL*
- November 1996 Invited participant: Workshop on "Magnetofossils on Earth, Mars, and Meteorites", National Aeronautics and Space Administration (NASA), Ames; Moffett Field, CA
- October 1997 Invited participant and speaker: Mineralogical Society of America shortcourse "Geomicrobiology: Interactions Between Microbes and Minerals", Alta, UT
- February 1998 Research cruise to study magnetotactic bacteria and endo- and ectosymbiotic bacteria of marine invertebrates at the oxic-anoxic interface in the Santa Barbara Basin R/V *ROBERT GORDON SPROWL*
- September 1998 Same as February 1998
- September 1999 Same as February 1998
- December 2000 Invited participant: American Academy of Microbiology Colloquium entitled "Geobiology: Exploring the Interface Between the Biosphere and the Geosphere"
- December 2003 Invited participant and speaker: Mineralogical Society of America shortcourse "Biomineralization", Napa, CA
- June 2004 Invited participant and speaker: Gordon Conference on Environmental Bio-Inorganic Chemistry, Bates College, Lewiston, ME
- August 2004 Invited participant: Workshop on Developing Proposal for an NSF-funded Deep Underground Science and Engineering Laboratory (DUSEL), Berkeley, CA
- January 2006 Invited participant and speaker: Workshop entitled: Nanoscale Processes in the Earth and Planetary Sciences, University of New Mexico, Albuquerque, NM
- August 2006 Invited participant and speaker: Gordon Conference on Biomineralization, Colby-Sawyer College, New London, NH
- June 2012 Invited participant and speaker: Ninth Santa Fe Conference on Rock Magnetism, Santa Fe, NM
- August 2012 Invited participant and speaker: Gordon Conference on Biomineralization, Colby-Sawyer College, New London, NH

Member:

American Geophysical Union 2005-Present
American Mineralogical Society 1999
American Society for Microbiology (ASM): National Membership Since 1983

Nominated for Chairman Elect of General Microbiology Division (Division I) 1993

Nominated for Chairman Elect of General Microbiology Division (Division I) 1999

Chairman Elect of General Microbiology Division (Division I) 2002-2003

Chair of General Microbiology Division (Division I) 2003-2004

Division Advisor (Division I) 2004-2005

ASM Virginia Local Branch 1990-1993

ASM Northeast Local Branch 1993-1995

ASM North Central Local Branch 1995-2006

Secretary-Treasurer 1999-2000

ASM Southern Nevada-Arizona Branch 2006 to 2012

President 2010

Materials Research Society 1991

Phi Sigma 1976-1980

- Editor of Northeastern Branch 1979-1980

Sigma Xi

- Chosen Graduate Student Speaker 1983-1984

Teaching and Research Interests:

General Microbiology, Microbial Biogeochemistry/Geomicrobiology, Microbial Physiology/Ecology/Genetics, Molecular Biology of Microbial Biogeochemistry/Geomicrobiology, Microbial Diversity, Marine Microbiology, Symbiosis and Host-Microbial Associations and Interactions

Reviewer:

Journals (105 Different Journals): ACS Applied Materials & Interfaces; ACS Nano; Acta Biomaterialia; Advanced Biosystems; Advanced Healthcare Materials; African Journal of Biotechnology; American Mineralogist; Annals of Microbiology; Annual Research and Review in Biology; Antonie van Leeuwenhoek International Journal of General and Molecular Microbiology; Applied and Environmental Microbiology; Archives of Microbiology; Biochimica et Biophysica Acta; Bioengineering; Biochimie; Bioelectrochemistry; Biofabrication; Bioinspired, Biomimetic and Nanomaterials; Biomicrofluidics; Bioresource Technology; Biotechnology and Bioengineering; Canadian Journal of Microbiology; ChemBioChem; Chemical Ecology; Chemical Geology; Cogent Biology; Computer Methods and Programs in Biomedicine; Critical Reviews in Biotechnology; Crystal Growth & Design; Current Opinion in Biotechnology; Earth and Planetary Science Letters; Earth-Science Reviews; Estuarine, Coastal, and Shelf Science; Environmental Microbiology; Extremophiles; FEMS Microbial Ecology; FEMS Microbiology Letters; Frontiers in Bioengineering and Biotechnology; Frontiers in Microbiology; Fuel Processing Technology; Gene; General Physiology and Biophysics; Genome Research; Geobiology; Geochimica Cosmochimica Acta; Geoderma; Geology; Geomicrobiology Journal; Heliyon; IEEE Transactions on Magnetics; International Journal of Nanomedicine; International Journal of Systematic and Evolutionary Microbiology; International Microbiology; International

Society for Microbial Ecology (ISME) Journal; ISRN Bacteriology; Journal of Advances in Biology & Biotechnology; Journal of Advances in Microbiology; Journal of Animal Ecology; Journal of Bacteriology; Journal of Biochemical and Biophysical Methods; Journal of Cancer; Journal of Chemical Technology and Biotechnology; Journal of Foraminiferal Research; Journal of Industrial Microbiology and Biotechnology; Journal of Magnetism and Magnetic Materials; Journal of Microscopy; Journal of Physics D Applied Physics; Journal of Proteome Research; Journal of Proteomics; Journal of the Royal Society Interface; Journal of Soils and Sediments; Journal of Structural Biology; Karbala International Journal of Modern Science; Limnologia; Limnology and Oceanography; Lipids; Materials; mBio; Microbial Cell Factories; Microbial Ecology; Microbiology; MicrobiologyOpen; Microelectronic Engineering; Microorganisms; Microscopy Research and Technique; Nano Letters; Nanomedicine; Nature; Nature Communications; Nature Geosciences; Nature; Nanotechnology; Nature; Pacific Science; Proteomics; Reviews in Microbiology; Physical Biology; PLoS Biology; PLoS Genetics; PLoS ONE; Research in Microbiology; Science; Science Bulletin; Scientific Reports; Seminars in Cell and Developmental Biology; Trends in Biochemical Sciences; Trends in Microbiology; Water Research

Editorial Board: Geobiology (Blackwell Publishing), 2001-2006; Frontiers in Microbiology, 2011 to Present; International Scholarly Research, 2014 to Present; Applied and Environmental Microbiology, 2016 to 2021; Frontiers in Marine Science, 2017 to present

Ad hoc Editor: Frontiers in Marine Science, 2016; mBio, 2015

Grant Proposals (22 Different Domestic and International Agencies): Agence Nationale de la Recherche (France); American Chemical Society; Austrian Science Fund; AXA Research Fund (Global); California State Faculty Support Grant Program; Consortium for Ocean Leadership, Gulf of Mexico Research Initiative (GoMRI); Deutsche Forschungsgemeinschaft (DFG; Germany); Einstein Foundation Berlin (Germany); Israel Science Foundation; National Aeronautics and Space Administration (NASA); National Sea Grant College Program; Natural Sciences and Engineering Research Council of Canada (NSERC); Ministry of Business, Innovation and Employment of New Zealand; Petroleum Research Fund; STW Technology Foundation (The Netherlands); UK Space Agency Aurora Science (United Kingdom); U.S. Army Engineer Research and Development Center; U.S. Army Natick Research and Development Center; U.S. Department of Defense (DOD); U.S. Department of Energy (DOE); U.S. National Science Foundation (NSF); University of Wisconsin Water Resources Institute.

Grant Panel Member

- 1) U.S. National Science Foundation, Life in Extreme Environments (LexEn) Program, Arlington, VA, July, 2000
- 2) U.S. National Science Foundation, Microbial Observatories and Microbial Interactions and Processes, Arlington, VA, November, 2003
- 3) U.S. National Science Foundation, Geobiology and Low Temperature Geochemistry, Arlington, VA, May, 2011
- 4) Consortium for Ocean Leadership, Gulf of Mexico Research Initiative (GoMRI), Washington, DC, August 2014
- 5) Consortium for Ocean Leadership, Gulf of Mexico Research Initiative (GoMRI), Washington, DC, July 2015

Faculty Promotion & Tenure

- 1) The University of Western Ontario, London, Ontario, Canada, 2003
- 2) University of Southern California, Los Angeles, CA, 2009
- 3) University of California Berkeley, Berkeley, CA, 2011
- 4) The Ohio State University, Columbus, OH, 2013
- 5) Beer-Gurion University, Israel, 2013
- 6) University of Newfoundland, Newfoundland, Canada, 2016

Books:

- 1) Chapters 19-24, *In: Microbiology* by L.M. Prescott, J.P. Harley, and D.A. Klein, 4th. Ed., 1999, WCB/McGraw-Hill.
- 2) Chapter entitled: Bacteria in Metal Stressed Environments. *In: Encyclopedia of Environmental Microbiology*, 2003, John Wiley and Sons, New York, NY. doi: 10.1002/0471263397.env237
- 3) Chapters 1-9, *In: Microbes and Society* by E. Alcamo, 2002, Jones and Bartlett Publishers, Sudbury, MA.
- 4) Chapters 21-24, *In: Microbiology* by G. Roberts and T. Paustian, 2005, Atomic Dog Publishing, Cincinnati, OH
- 5) General Outline and Proposal, *Basic Molecular Protocols in Microbiology* by D.K. Arora and S. Das, Elsevier, Inc., New York, NY In press.

Miscellaneous

- 1) Candidates for Canada Research Chairs Program, 2002

Graduate Student Committee Member:

As Major Advisor:

1. Annette J. Dean, M.S., 1999, Department of Microbiology, Iowa State University, Ames, IA
2. Bradley L. Dubbles, Ph.D., 2003, Department of Microbiology, Iowa State University, Ames, IA
3. Jose N. E. Neto, M.S., 2004, Department of Biochemistry, Biophysics, and Molecular Biology, Iowa State University, Ames, IA
4. Ginger Shipp, Ph.D., 2009, Department of Microbiology, Iowa State University, Ames, IA (Co-Major Advisor)
5. Eshani Lopez, M.A.S., 2012, College of Sciences, University of Nevada at Las Vegas, Las Vegas, NV
6. Corey Geurink, Ph.D., 2017, School of Life Sciences, University of Nevada at Las Vegas, Las Vegas, NV

As Graduate Committee Member:

1. Stuart W. Snyder, Ph.D., 1987, Graduate Department of Biochemistry, Brandeis University, Waltham, MA
2. James Hoglen, Ph.D., 1989, Graduate Department of Biochemistry, Brandeis University, Waltham, MA
3. Shaw-Ming Chao, M.S., 1999, Department of Civil and Construction Engineering, Iowa State University, Ames, IA
4. Wen-Hsing Chen, M.S., 1999, Department of Civil and Construction Engineering, Iowa State University, Ames, IA
5. Steven Van Ginkle, M.S., 2000, Department of Civil and Construction Engineering, Iowa State University, Ames, IA
6. Yuyun Shang, Ph.D., 2000, Department of Civil and Construction Engineering, Iowa State University, Ames, IA
7. Sombat Pongpanichkul, M.S., 2001, Department of Civil and Construction Engineering, Iowa State University, Ames, IA
8. Monika Cogoini, Ph.D., 2001, School of Geology and Geophysics, The University of Oklahoma, Norman, OK
9. Anthony P. Taylor, Ph.D., 2002, Department of Microbiology and Parasitology, University of Queensland, Australia (Thesis Reader and Examiner)
10. Ginger Shipp, M.S., 2003, Department of Microbiology, Iowa State University, Ames, IA
11. Fernando Rodriguez, Ph.D., 2003, Department of Microbiology, Iowa State University, Ames, IA
12. Sally Foong, Ph.D., 2003, Department of Microbiology, Iowa State University, Ames, IA
13. Catherine Axtell, Ph.D., 2003, Department of Microbiology, Iowa State University, Ames, IA
14. Olivia Chan, M.S., 2005, Department of Geology, Iowa State University, Ames, IA
15. Monchai Wongkarnka, Ph.D., 2005, Department of Civil and Construction Engineering, Iowa State University, Ames, IA
16. Wen-Hsing Chen, Ph.D., 2007, Department of Civil and Construction Engineering, Iowa State University, Ames, IA
17. James Peterson, Ph.D., 2008, Interdepartmental Genetics Program, Iowa State University, Ames, IA
18. Shamik Das Gupta, Ph.D., 2010, Department of Geological and Atmospheric Sciences, Iowa State University, Ames, IA

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19. Dustin Harrison, Ph.D., 2010, School of Life Sciences, University of Nevada at Las Vegas, Las Vegas, NV
20. Sara Kienzle, M.A.S., 2011, School of Life Sciences, University of Nevada at Las Vegas, Las Vegas, NV
21. Carmen Valverde Tercedor, Ph.D., 2013, Departamento Microbiologia, Universidad de Granada, Granada, Spain
22. Katherine Willever, M.S., 2016, School of Life Sciences, University of Nevada at Las Vegas, Las Vegas, NV
23. Penelope Padmore, M.S., 2016, Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV
24. Lee T. Hess, M.S., 2017, Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV
25. Tanviben Y. Patel, Ph.D., 2017, Department of Environmental and Occupational Health, University of Nevada at Las Vegas, Las Vegas, NV
26. Sara Gedo, M.S., 2018, Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV
27. Joshua Sackett, Ph.D., 2018, School of Life Sciences, University of Nevada at Las Vegas, Las Vegas, NV
28. Taylor Craig, M.S., 2019, Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV
29. Kelsey Konkright, M.S., 2019, Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV
30. Andre Nguyen, M.S., 2019, School of Life Sciences, University of Nevada at Las Vegas, Las Vegas, NV
31. William Barba, M.S., 2020, Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV
32. Michael Strange, Ph.D., 2020, Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV
33. Austen Ganje, Ph.D., School of Life Sciences, University of Nevada at Las Vegas, Las Vegas, NV
34. Courtney Wagner, Ph.D., Department of Geology and Geophysics, University of Utah, Salt Lake City, UT
35. Amanda Ostwald, Ph.D., Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV
36. Dylin Guerin, Ph.D., School of Life Sciences, University of Nevada at Las Vegas, Las Vegas, NV

Invited Seminars: 132 international, domestic and local invited presentations

1. Sigma Xi Student Lecture, University of New Hampshire, Durham, NH, May, 1984; "Aerobic denitrification by *Aquaspirillum magnetotacticum*"

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2. Department of Civil Engineering, Massachusetts Institute of Technology, Cambridge, MA, May, 1985; "The biogeochemistry of nitrogen and iron in *Aquaspirillum magnetotacticum*"
3. Battelle-Kettering Laboratory, Yellow Springs, OH, December, 1985; "Aspects of denitrification in a magnetotactic bacterium, *Aquaspirillum magnetotacticum*, and *Pseudomonas aeruginosa*"
4. Department of Biology, University of Minnesota, Duluth, MN, March, 1986; "The biogeochemistry of nitrogen and iron in *Aquaspirillum magnetotacticum*"
5. EXXON Research and Engineering, Annandale, NJ, June, 1987; "The organic biogeochemistry and microbiology of two deep-sea hydrothermal vent sites"
6. United States Uniformed Services Hospital, Bethesda, MD, December, 1987; "The magnetotactic bacteria"
7. Marine Biological Laboratory, Woods Hole, MA, July, 1988, MBL Microbial Ecology Course; "Isolation of a new marine, magnetotactic bacterium"
8. EXXON Research and Engineering, Annandale, NJ, August, 1988; "The magnetotactic bacteria"
9. American Society for Microbiology, 89th Annual Meeting, New Orleans, LA, May, 1989; "Anaerobic production of magnetite by a marine magnetotactic bacterium" Symposium on the Physiology and Ecology of Novel Anaerobes
10. Marine Biological Laboratory, Woods Hole, MA, June, 1989, MBL Microbial Ecology Course; "Isolation and partial characterization of strain MV-1, a facultatively anaerobic magnetotactic bacterium"
11. Conference on Iron Biominerals, University of New Hampshire, Durham, NH, August, 1989; "Anaerobic production of single-domain magnetite by the facultatively anaerobic magnetotactic bacterium, strain MV-1"
12. Department of Anaerobic Microbiology, Virginia Polytechnic Institute and State University, Blacksburg, VA, August, 1989; "The magnetotactic bacteria"
13. Biology Department, Concordia University, Montreal, Quebec, Canada, October, 1989; "The magnetotactic bacteria"
14. Materials Research Society, 1990 Fall Meeting, Boston, MA, November, 1990; "Bacterial production of iron-sulfides", Symposium on Materials Synthesis Based on Biological Processes
15. Department of Biology, Virginia Polytechnic Institute and State University, Blacksburg, VA, February, 1991; "The organic biogeochemistry and microbiology of the Guaymas Basin hydrothermal vent site"
16. Department of Biochemistry, Virginia Polytechnic Institute and State University, Blacksburg, VA, March, 1991; "The magnetotactic bacteria"
17. Environmental Magnetism Workshop, University of Minnesota, Minneapolis, MN, June, 1991; "Magnetotactic bacteria and the origin of biogenic magnetite and greigite in sediments"

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18. Environmental Magnetism Workshop, University of Minnesota, Minneapolis, MN, June, 1991; "Techniques and methods to study small grains within and out of cells"
19. Department of Biological Sciences, Duchesne University, Pittsburg, PA, October, 1991; "The magnetotactic bacteria"
20. Office of Naval Research, Biocorrosion Workshop, Washington, D.C., November, 1991; "Can magnetotactic bacteria contribute to the corrosion of iron (and/or other metals)?"
21. Department of Oceanography, Old Dominion University, Norfolk, VA, January, 1992; "Magnetotactic bacteria in the cycling of iron, nitrogen, and sulfur"
22. Naval Research Laboratory, Washington, D.C., March, 1992; "Structure and function of magnetosomes in magnetotactic bacteria"
23. Department of Chemistry and Chemical Engineering, Stevens Institute of Technology, Castle on the Hudson, Hoboken, NJ, March, 1992; "New directions in environmental microbiology: the role of magnetotactic bacteria in the cycling of elements and biocorrosion in the aqueous environment"
24. Electron Microscopy Society of America, 50th Annual Meeting, Boston, MA, August, 1992; "The identification of magnetic minerals and other self-assembled structures within magnetotactic bacteria using electron microscopy and related micro-techniques" Symposium on the Microscopy of Self-Assembled Materials and Biomimetics.
25. Department of Geology, Virginia Polytechnic Institute and State University, Blacksburg, VA, February, 1993; "Biomineralization of iron sulfides and iron oxides by bacteria"
26. Biology Department, Northeastern University, Boston, MA, October, 1993; "The magnetotactic bacteria"
27. Biotechnology Division, U.S. Army Natick Research, Development, and Engineering Center, Natick, MA, November, 1993; "The magnetotactic bacteria"
28. Department of Chemistry, Wake Forest University, Winston-Salem, NC, March, 1994; "Magnetic personalities in small creatures: Biomineralization of magnetic iron oxides and sulfides in magnetotactic bacteria"
29. Marine Science Center, Northeastern University, Nahant, MA, April, 1994; "Marine biogeochemical cycling by magnetotactic bacteria"
30. Symposium on Metal-Microbe Interactions, American Society for Microbiology, 94th Annual Meeting, Las Vegas, NV, May, 1994; "Structure and function of magnetosomes in magnetotactic bacteria from various aquatic environments"
31. Sigma Xi Lecture, U.S. Army Research and Development Laboratories, Natick, MA, September, 1994; "Magnetic personalities in small creatures: The magnetotactic bacteria"

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32. Biology Department, College of the Holy Cross, Worcester, MA, February, 1995; "Making the most from the least: The magnetotactic bacteria"
33. Department of Biological Sciences, California State University, Long Beach, CA, April, 1995; "Biogeochemical cycling by magnetotactic bacteria in coastal and marine environments"
34. Department of Biological Sciences, Ohio University, Athens, OH, April, 1995; "Making the most from the least: The magnetotactic bacteria"
35. Department of Microbiology, Immunology, and Preventative Medicine, Iowa State University, Ames, IA, May, 1995; "Biogeochemical cycling in microaerobic and anaerobic environments by magnetotactic bacteria"
36. American Society for Microbiology, North Central Branch Annual Meeting, Iowa City, IA, September, 1995; "Structure and function of magnetosomes in magnetotactic bacteria"
37. School of Biology, Georgia Institute of Technology, Atlanta, GA, November, 1995; "Microbial engineers: the magnetotactic bacteria"
38. Department of Geological Sciences, Iowa State University, Ames, IA, November, 1995; "Biomineralization of magnetic minerals by magnetotactic bacteria"
39. Department of Biological Sciences, Northern Illinois University, DeKalb, IL, September, 1996; "Life on the edge: magnetotactic bacteria at the oxic-anoxic interface"
40. Departments of Marine Biology and Geochemistry, Scripps Institute of Oceanography, La Jolla, CA, September, 1996; "Life on the edge: magnetotactic bacteria at the oxic-anoxic interface"
41. American Society for Microbiology, North Central Branch Annual Meeting, Milwaukee, WI, October, 1996; "Life on the edge: magnetotactic bacteria at the oxic-anoxic interface"
42. National Aeronautics and Space Administration (NASA), Ames; Moffett Field, CA, November, 1996; "Ecology, physiology, and phylogeny of magnetotactic bacteria: What do we know about the magnetotactic bacteria on Earth"
43. Department of Microbiology, University of Iowa, Iowa City, IA, December, 1996; "Life on the edge: magnetotactic bacteria at the oxic-anoxic interface"
44. Mineralogical Society of America Shortcourse, Alta, UT, October, 1997; "Microbial biomineralization of magnetic iron minerals: microbiology, magnetism and environmental significance"
45. Geological Society of America, 1997 Annual Meeting, Salt Lake City, UT, October, 1997; "Intracellular biomineralization of magnetite by the magnetotactic bacterium, strain MV-1"
46. Department of Microbiology, Arizona State University, Tempe, AZ, May, 1998; "The magnetotactic bacteria: mineral-forming agents of geochemical change"

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47. American Society for Microbiology, 1998 Annual Meeting, Atlanta, GA, May, 1998: "Ultrastructure and function of the bacterial magnetosome" Symposium on Bacterial Mineral Precipitation
48. American Society for Microbiology, North Central Branch Annual Meeting, Vermillion, SD, October, 1998: "What does magnetotaxis really mean?"
49. New England Biolabs, Beverly, MA, November, 1998: "Controlled biomineralization in the magnetotactic bacteria: learn how to have a magnetic personality"
50. Department of Biochemistry, Biophysics, and Molecular Biology, Iowa State University, Ames, IA, November, 1998: "Magnetotactic bacteria: model organisms for understanding the molecular basis of controlled biomineralization"
51. Department of Microbiology, University of Massachusetts, Amherst, MA, December, 1998: "Investigating the molecular basis of magnetosome synthesis in magnetotactic bacteria: learning how to have a magnetic personality" Speaker chosen and hosted by Microbiology Graduate Students.
52. Lunar and Planetary Institute, Houston TX, December, 1998: "Magnetotactic bacteria and their magnetic mineral crystals as biomarkers and fossils"
53. The Defense Advanced research Projects Agency (DARPA), Defense Sciences Research Council (DSRC) Weird Science Workshop, Arlington, VA, February, 1999: "Understanding the molecular and (bio)chemical basis of magnetosome synthesis in magnetotactic bacteria: learning how to have a magnetic personality"
54. The Holger W. Jannasch Symposium, Woods Hole Oceanographic Institution, Woods Hole, MA, June, 1999: "Autotrophy in magnetotactic bacteria"
55. Museu de la Ciència, Barcelona, Spain, June, 1999: "Linking physics, geology, and biology: magnetic mineral formation in the magnetotactic bacteria"
56. Nové Curs Avançat D'Ecologia Microbiana (Summer Microbial ecology course of the University of Barcelona at the Ebro Delta organized by the Catalan Society of Biology), L'Aldea, Spain, June, 1999: "The ecology and physiology of the magnetotactic bacteria"
57. Department of Physics, University of Barcelona, Barcelona, Spain, June, 1999: "The magnetotactic bacteria"
58. Department of Microbiology, University of Minnesota, Minneapolis, MN, November, 1999: "Relieving stress with magnetic therapy: the magnetotactic bacteria"
59. Jet Propulsion Laboratory, Pasadena, CA, May, 2000: "The magnetotactic bacteria"
60. American Society for Microbiology, 100th Annual Meeting, Los Angeles, CA, May, 2000: "Relieving stress with magnetic therapy: the magnetotactic bacteria" Symposium on Bacterial Mineral Precipitation
61. Midwest Microbial Molecular Ecology 6th Annual Meeting, Dekalb, IL, July, 2000: "Magnetosomes: promiscuous particles in prokaryotes and protozoa"

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62. The 8th International Conference on Ferrites, Kyoto, Japan, September, 2000: "Magnetosome synthesis in the marine, magnetotactic bacterium strain MV-1"
63. Department of Biotechnology, Tokyo University of Agriculture and Technology, Tokyo, Japan, September, 2000: "Magnetosome synthesis in the marine, magnetotactic bacterium strain MV-1"
64. Faculty of Biology, Kanasawa University, Kanasawa, Japan, September, 2000: "Magnetosome synthesis in the marine, magnetotactic bacterium strain MV-1"
65. Department of Earth and Environmental Sciences, Lehigh University, Bethlehem, PA, April, 2001: "From the origin of life to Mars: the magnetotactic bacteria story"
66. American Society for Microbiology, 101th Annual Meeting, Orlando, FL, May, 2001: "Magnetosome synthesis in the marine vibrio, strain MV-1" Symposium on Geomicrobiology: Interfacing Microbiology and Geoscience
67. Defense Advanced Research Projects Agency, Arlington, VA , May 2001: "Properties and applications of biologically-produced magnetite" DSRC Workshop on Functional Integration of Cells and Materials
68. Goldschmidt 2001, Hot Springs, VA, May, 2001: "Biogeochemical cycling by and dynamics of magnetotactic microorganisms in chemically-stratified coastal salt ponds" Symposium on Of Earth and Microbes: Active Participation of Microorganisms in Geochemical Processes II
69. Marine Biological Laboratory, Woods Hole, MA, June, 2001, MBL Microbial Ecology Course; "The magnetotactic bacteria"
70. Annual Meeting of the American Society for Gravitational and Space Biology, Alexandria, VA, November, 2001: "Magnetism and biology; the magnetotactic bacteria story"
71. Department of Microbiology, University of Wisconsin at La Crosse, La Crosse, WI, November, 2001: "From the origin of life to Mars: the magnetotactic bacteria story"
72. American Society for Microbiology, Florida Branch Annual Meeting, Coco Beach, FL, February, 2002: "From the origin of life to Mars: the magnetotactic bacteria story"
73. Department of Earth Sciences, University of Ottawa, Ottawa, Canada, February, 2002: "From the origin of life to Mars: the magnetotactic bacteria story"
74. Department of Microbiology, University of Guelph, Guelph, Canada, February, 2002: "From the origin of life to Mars: the magnetotactic bacteria story"
75. American Society for Microbiology, 102nd Annual Meeting, Salt Lake City, UT, May, 2002: "Magnetic bacteria: physiology, ecology and mineralogy" Symposium on Mars, Meteorites and Magnetite: The Controversy Continues, Co-convener of Symposium

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76. National Aeronautics and Space Administration (NASA), NASA Ames, Moffett Field, CA, June, 2002: Could (can) magnetotactic bacteria have made (make) a living on Mars?: Ecology and physiology of magnetotactic bacteria”
77. Marine Biological Laboratory, Woods Hole, MA, June, 2002, MBL Microbial Ecology Course: "The magnetotactic bacteria"
78. Department of Physics, Brandeis University, Waltham, MA, November, 2002: “The making of a magnetic personality: the magnetotactic bacteria”
79. Department of Biology, Doane College, Crete, NE, May, 2003: “The magnetotactic bacteria”
80. American Society for Microbiology, 103rd Annual Meeting, Washington, DC, May, 2003: Convener, Introduction to Symposium entitled “What’s New in the Study of Magnetotactic Bacteria”
81. American Society for Microbiology Conference, Bio-, Micro- and Nanosystems, New York City, July, 2003: “Nanoscale engineering of magnetic particles by magnetotactic bacteria”
82. Marine Biological Laboratory, Woods Hole, MA, July, 2003, MBL Microbial Ecology Course: "The magnetotactic bacteria"
83. Department of Biology, Marquette University, Milwaukee, WI, November, 2003: “From the origin of life to Mars: the magnetotactic bacteria story”
84. Mineralogical Society of America Shortcourse, Napa, CA, December, 2003: "Biologically controlled mineralization in prokaryotes"
85. Department of Marine Sciences, University of South Florida, Tampa, FL, February, 2004: “Biogeochemical cycling and biomineralization by marine magnetotactic bacteria”
86. Wadsworth Center, Albany, NY, May, 2004: “From the origin of life to Mars: the magnetotactic bacteria story”
87. Sunya Chapter of Sigma Xi, Albany, NY, May, 2004: “Magnets, microbes, and Mars”
88. Gordon Research Conference on Environmental Bio-inorganic Chemistry, Lewiston, ME, June, 2004: “Evidence for a Copper-Dependent Iron Uptake System in the Marine Magnetotactic Bacterium, Strain MV-1”
89. Marine Biological Laboratory, Woods Hole, MA, June, 2004, MBL Microbial Ecology Course: "The magnetotactic bacteria"
90. Geological Society of America, 2004 Annual Meeting, Denver, CO, November, 2004: "Biomineralization by prokaryotes: rocks as microbial fossils?"
91. Department of Microbiology, Southern Illinois University, Carbondale, IL, November, 2004: “From the origin of life to Mars: the magnetotactic bacteria story”

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92. Department of Biology, Portland State University, Portland, OR, January, 2005: "From the origin of life to Mars: the magnetotactic bacteria story"
93. Joint Genome Institute at Los Alamos National Laboratory, Los Alamos, NM, May, 2005: "From the origin of life to Mars: the magnetotactic bacteria"
94. Center for Biofilm Engineering, Montana State University, Bozeman, MT, May 2005: "From the origin of life to Mars: the magnetotactic bacteria"
95. Society for General Microbiology, 157th Annual Meeting, Keele, UK, September, 2005: "Engineering a magnetic personality: biomineralization by magnetotactic bacteria"
96. Department of Biology, University of Edinburgh, Edinburgh, Scotland, UK, September, 2005: "From the origin of life to Mars: the magnetotactic bacteria"
97. Department of Ecology, Evolution, and Organismal Biology, Iowa State University, Ames, IA, September, 2005: "Defining microbial ecology: the magnetotactic bacteria story"
98. Max Planck Institute for Marine Microbiology, Bremen, Germany, October, 2005: "From the origin of life to Mars: magnetotactic bacteria"
99. American Geophysical Union Annual Meeting. San Francisco, December, 2005: "Chemolithoautotrophy and its relationship to magnetism and biomineralization in marine magnetotactic bacteria"
100. Workshop entitled "Nanoscale Processes in the Earth and Planetary Sciences" (NANOPEPs), January, 2006: "From the origin of life to Mars: the magnetotactic bacteria"
101. Department of Biological Sciences, University of Nevada at Las Vegas, February, 2006: "From the origin of life to Mars: the magnetotactic bacteria"
102. Department of Biology, University of New Mexico, March, 2006: "From the origin of life to Mars: the magnetotactic bacteria"
103. Gordon Research Conference on Biomineralization, New London, NH, August, 2006: Convener and speaker "Biomineralization and prokaryotes"
104. American Society for Microbiology, Arizona-Nevada Branch 46th Annual Meeting, Flagstaff, AZ, April, 2007: "Magnetotactic bacteria"
105. Bamfield Marine Sciences Centre, Bamfield, BC, Canada, July, 2007: "Marine Microbes, Magnetism and Mars"
106. 24th Congresso Brasileiro de Microbiologia, Brasilia, Brazil, October, 2007: "Biology of the Magnetotactic Prokaryotes"
107. Instituto de Microbiologia, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, October, 2007: "From Earth to Mars: the Biology of the Magnetotactic Prokaryotes"

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108. Department of Microbiology, University of Grenada, Grenada, Spain, October, 2007: “From Earth to Mars: the Biology of the Magnetotactic Prokaryotes”
109. American Society for Microbiology, Division I Lecture, 108th Annual Meeting, Boston, MA, June, 2008: “Prokaryotic Nano-Engineering: Control of the Construction of the Magnetosome Chain in Magnetotactic Bacteria”
110. International Workshop on Magnetotactic Bacteria, Balatonfüred, Hungary, June, 2008: “Recent progress in studies with strain MV-1 and other magnetotactic bacteria”
111. American Geophysical Union Chapman conference on Biogeophysics, October, 2008; “Construction and significance of the magnetosome chain in magnetotactic bacteria”
112. Department of Geology, Miami University, Oxford, OH, November, 2008; “The little engineers that could: construction of the magnetosome chain in magnetotactic bacteria”
113. School of Environmental and Natural Resources, Ohio State University, Columbus, OH, October, 2009; “Bacteria with backbone: the magnetotactic bacteria”
114. 2nd International Symposium on Magnetotactic Bacteria and Biomineralization, Beijing, China, September, 2010; “Phylogenetic diversity and ecophysiology of new cultured and uncultured magnetite-producing magnetotactic bacteria from aquatic environments in the desert”
115. Department of Microbiology, University of Grenada, Grenada, Spain, September, 2010: “Magnetotactic bacteria: their potential in nanotechnology”
116. Department of Geological Sciences, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, October, 2011: “Small magnetism, big attraction: the magnetotactic bacteria”
117. 56th Annual Wind River Conference on Prokaryotic Biology, Las Vegas, NV, June, 2012: “Small magnetism, big attraction: the magnetotactic bacteria” (Plenary Address)
118. 3rd International Magnetotactic Bacteria Meeting, Berkeley, CA, June, 2012: “Insights into the origin and evolution of magnetosome genes in newly isolated magnetotactic bacteria in the genus *Magnetospirillum*”
119. Ninth Santa Fe Conference on Rock Magnetism, Santa Fe, NM, June, 2012: “Small magnetism, big attraction: the magnetotactic bacteria” (Keynote Lecture)
120. Gordon Research Conference on Biomineralization, New London, NH, August, 2012: “Small magnetism, big attraction: the evolution of biomineralization in magnetotactic bacteria”
121. Max-Planck-Institute for Gravitational Physics, Potsdam, Germany, November, 2012: “Magnetotactic bacteria: biodiversity and evolution”
122. Le Centre National de la Recherche Scientifique (CNRS), Marseille, France, November, 2012: “Biogeochemistry and ecophysiology of magnetotactic bacteria”

123. Department of Chemistry and Chemical Biology, McMaster University, Hamilton, Ontario, Canada, April, 2014: “Molecular construction and evolution of a magnetic personality”
124. 4th International Magnetotactic Bacteria Meeting, Rio de Janeiro, Brazil, September, 2014: “Aerobic respiration and growth (reproducible) by sulfate-reducing magnetotactic bacteria”
125. Gordon Research Conference on the Molecular Basis for Microbial One Carbon Metabolism, South Hadley, MA, August 2014: “Autotrophy and C1 metabolism in the magnetotactic bacteria”
126. Department of Geoscience, University of Nevada at Las Vegas, Las Vegas, NV, February, 2015: “From the origin of life to Mars: the magnetotactic bacteria”
127. Department of Geology and Geophysics, The University of Utah, Guy F. Atkinson Distinguished Lecture Series, Salt Lake City, UT, December 2015: “From the origin of life to Mars: the magnetotactic bacteria”
128. 5th International Magnetotactic Bacteria Meeting, Marseilles, France, September, 2016: “Clues to culturing freshwater magnetococci using a metagenomics approach”
129. Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing, China, July, 2017: “Determining the evolution of magnetotaxis through the diversity of magnetotactic bacteria: what are we missing?”
130. Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing, China, July, 2017: “Clues to culturing freshwater magnetococci using a “metagenomic” approach”
131. AgBiome, LLC, Durham, NC, March, 2018: From the origin of life to the Mohave Desert to Mars: the magnetotactic bacteria”
132. American Geophysical Union Annual Meeting, Washington, DC, December, 2018: “Significance of magnetotactic bacteria: agents of planetary biogeochemical cycling?”

References:

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Grants and Contracts:

1. "Anaerobic and Microaerobic Transformations of Nitrogen, Iron, and Sulfur by Magnetotactic Bacteria", P.I., Virginia Agricultural Research Station (Hatch Report), 1991-1993, Salary, \$114,000, three years.
2. "Biom mineralization of Iron Oxides and Iron Sulfides in Magnetotactic Bacteria", Co-P.I. (with R.B. Frankel, Physics Department, California Polytechnic State University, San Luis Obispo, CA and A.J. Garratt-Reed, Center of Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, MA), Office of Naval Research, Grant No. N00014-91-J1290, 1-1-91 to 6-30-94, \$348,753 Total.
3. "Chemolithoautotrophy and Sulfur Metabolism in Magnetotactic Bacteria", P.I., Cellular Biochemistry Division of the National Science Foundation, Grant Number MCB-9696027. Total Funding: \$135,000; 1/1/93 to 8/31/96.
4. "Biom mineralization of Iron Oxides and Iron Sulfides in Magnetotactic Bacteria", Co-P.I. (with R.B. Frankel, Physics Department, California Polytechnic State University, San Luis Obispo, CA and D.R. Dean, Department of Anaerobic Microbiology, Virginia Polytechnic Institute and State University, Blacksburg, VA), Office of Naval Research, 7-1-94 to 6-30-97, \$154,747 total to DAB.
5. "Development of a Diagnostic Tool to Indicate Potential Odor Emission from Anaerobic Lagoons", Co-P.I. (with L. Halverson, A.A. DiSpirito, J.L. Hatfield, and J.A. Zahn, Iowa State University, Ames, IA). Iowa Soybean Promotion Board, Iowa Corn Board, and Iowa Pork Producers Association. Total Funding: \$18,000; 1996-1997.
6. "Iron Oxide and Sulfide Mineral Particles as Biomarkers", Co-P.I. (with R.B. Frankel, California Polytechnic State University, San Luis Obispo, CA, P.R. Buseck, Arizona State University, Tempe, AZ, and B.M. Moskowitz, University of Minnesota, Minneapolis, MN). Mars Rock Division of the National Science Foundation, Grant Number: CHE-9714101. Total to DAB: \$80,000; 8/1/97 to 7/31/00.

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7. "Bathyal Microaerophiles: Life Positions and Adaptations of the Santa Barbara Basin Benthos", Co-P.I. (with J.M. Bernhard, University of South Carolina, Columbia, SC, S.S. Bowser, and E.B. Braun- Howland, Wadsworth Center, Albany, NY). Division of Ocean Sciences/Biological Oceanography of the National Science Foundation, Grant Number: BO-9711812. Total to DAB: \$60,000; 11/1/97 to 10/31/00.
8. "Investigation of the Fractionation of Stable Iron Isotopes in Biogenic Magnetite", Co-P.I. (with B.L. Hoyle, Iowa State University, Ames, IA). Roy J. Carver Charitable Trust (Competitive Internal Grant Program at Iowa State University). Total Funding: \$19,970 (1.5 years), 1997-1998.
9. "Examination of Bacterially-Produced Iron Oxides and Iron Sulfides and Comparison with those in Extraterrestrial Materials", P.I., National Aeronautics and Space Administration (NASA) Johnson Space Center Astrobiology Institute, Grant Number: NAG 9-1115. Total Funding: \$85,000; 1/1/99 to 12/31/2003.
10. "Effect of Environmental Growth Conditions on the Composition and Morphology of Bacterial Magnetosome Crystals and on the Subsequent Dissolution and Preservation of Magnetofossils", P.I., Biogeosciences Initiative, Earth Sciences Division of National Science Foundation, Grant Number EAR-0311950. Total funding: \$506,791; 8/15/03 to 8/14/08.
11. "Bacterial Hydrogen Production from Grape Juice Waste", Contract from Infected, Inc., 87 Stambaugh Avenue, Suite 2, Sharon, PA 16146. Total funding: \$5,000; 7/1/2005 to 12/31/2005.
12. "Collaborative Research: Using Single-Molecule Force and Fluorescence Microscopy to Elucidate the Molecular Mechanism of Bioinspired Magnetite Synthesis in Magnetotactic Bacteria", Co-P.I. (with B.H. Lower, The Ohio State University, Columbus, OH). Geobiology and Low Temperature Geochemistry Program, Earth Sciences Division of National Science Foundation, Grant Number EAR-0920718. Total to DAB: \$146,261; 9/1/2009 to 8/31/2013 (one year no-cost time extension).
13. "Bioinspired Materials", Co-P.I. (with S. Mallapragada, T. Prozorov, R. Prozorov and others, Iowa State University (ISU), Ames, IA). United States Department of Energy. Issued to DAB as subcontract of Prime Contract No. De-AC02-07CH11358 to ISU. Total subcontract: \$220,286.88; 10/1/2012 to 09/30/2015.
14. "Collaborative Research; Protein Mediated Magnetite Biomineralization", Co-P.I. (with B.H. Lower and S.K.Lower, The Ohio State University, Columbus, OH). Geobiology and Low Temperature Geochemistry Program, Earth Sciences Division of National Science Foundation, Grant Number EAR-1423939. Total to DAB: \$201,878; 9/1/2014 to 8/31/18 (one year no-cost time extension).
15. "Airborne Pollen Monitoring", Co-P.I. (with M. Buttner, UNLV). Clark County School District, NV. Total funding to UNLV: \$75,000; 9/1/2015 to 8/31/2016.
16. "Airborne Pollen Monitoring", Co-P.I. (with M. Buttner, UNLV). Clark County School District, NV. Total funding to UNLV: \$75,000; 9/1/2016 to 8/31/2017.
17. "Airborne Pollen Monitoring", Co-P.I. (with M. Buttner, UNLV). Clark County School District, NV. Total funding to UNLV: \$98,010; 9/15/2017 to 8/31/2018.
18. "Airborne Pollen Monitoring", Co-P.I. (with M. Buttner, UNLV). Clark County School District, NV. Total funding to UNLV: \$75,000; 9/1/2018 to 8/31/2019.

19. “Collaborative Research; Protein Mediated Magnetite Biomineralization”, (Supplemental Grant Funding) with B.H. Lower and S.K. Lower, The Ohio State University, Columbus, OH). Geobiology and Low Temperature Geochemistry Program, Earth Sciences Division of National Science Foundation. Total funding to UNLV: \$44,446; 9/1/2018-8/31/2019.

Grants and Contracts Pending:

Publications: Author or co-author of 208 total publications (journal articles, books, and book chapters (excludes proceedings and abstracts)). H-indexes = 61 (>10,500 citations; from ISI Web of Science-All Databases) and 73 (>16,000 citations; from Google Scholar).

Peer-reviewed Publications in Journals:

1. **Bazylinski, D.A.**, and F.A. Rosenberg. 1980. Silica gel plates for culture of marine and nonmarine microorganisms. *Appl. Environ. Microbiol.* **39**: 934.
2. **Bazylinski, D.A.**, and F.A. Rosenberg. 1983. Occurrence of a brush border in the caecum (appendix) of several *Teredo* and *Bankia* species (Teredinidae: Bivalvia: Mollusca). *Veliger* **25**:251-254.
3. **Bazylinski, D.A.**, and R.P. Blakemore. 1983. Denitrification and assimilatory nitrate reduction in *Aquaspirillum magnetotacticum*. *Appl. Environ. Microbiol.* **46**: 1118-1124.
4. **Bazylinski, D.A.**, and R.P. Blakemore. 1983. Nitrogen fixation (acetylene reduction) in *Aquaspirillum magnetotacticum*. *Curr. Microbiol.* **9**: 305-308.
5. Blakemore, R.P., K.A. Short, **D.A. Bazylinski**, C. Rosenblatt, and R.B. Frankel. 1985. Microaerobic conditions are required for magnetite synthesis within *Aquaspirillum magnetotacticum*. *Geomicrobiol. J.* **4**: 53-71.
6. **Bazylinski, D.A.**, and T.C. Hollocher. 1985. Evidence from the reaction between trioxodinitrate(II) and ¹⁵NO that trioxodinitrate decomposes into nitrosyl hydride and nitrite in neutral aqueous solution. *Inorg. Chem.* **24**: 4285-4288.
7. **Bazylinski, D.A.**, and T.C. Hollocher. 1985. Metmyoglobin and methemoglobin as efficient traps for nitrosyl hydride (nitroxyl) in neutral aqueous solution. *J. Am. Chem. Soc.* **107**: 7982-7986.
8. **Bazylinski, D.A.**, J. Goretski, and T.C. Hollocher. 1985. On the reaction of trioxodinitrate(II) with hemoglobin and myoglobin. *J. Am. Chem. Soc.* **107**: 7986-7989.
9. **Bazylinski, D.A.**, C.K. SooHoo, and T.C. Hollocher. 1986. Growth of *Pseudomonas aeruginosa* on nitrous oxide. *Appl. Environ. Microbiol.* **51**: 1239-1246.
10. **Bazylinski, D.A.**, E. Palome, N.A. Blakemore, and R.P. Blakemore. 1986. Denitrification by *Chromobacterium violaceum*. *Appl. Environ. Microbiol.* **52**: 696-699.

11. Snyder, S.W., **D.A. Bazylinski**, and T.C. Hollocher. 1987. Loss of N₂O-reductase activity as an explanation for poor growth of *Pseudomonas aeruginosa* on N₂O. *Appl. Environ. Microbiol.* **53**: 2045-2049.
12. **Bazylinski, D.A.**, R.A. Arkowitz, and T.C. Hollocher. 1987. Decomposition of hydroxylamine by hemoglobin. *Arch. Biochem. Biophys.* **259**: 520-526.
13. **Bazylinski, D.A.**, R.B. Frankel, and H.W. Jannasch. 1988. Anaerobic magnetite production by a marine magnetotactic bacterium. *Nature (London)* **334**: 518-519.
14. **Bazylinski, D.A.**, J.W. Farrington, and H.W. Jannasch. 1988. Hydrocarbons in surface sediments from a Guaymas Basin hydrothermal vent site. *Org. Geochem.* **12**: 547-558.
15. Gokce, N., T.C. Hollocher, **D.A. Bazylinski**, and H.W. Jannasch. 1989. A thermophilic *Bacillus* sp. which shows the denitrification phenotype of *Pseudomonas aeruginosa*. *Appl. Environ. Microbiol.* **55**: 1023-1025.
16. Moskowitz, B.M., R.B. Frankel, **D.A. Bazylinski**, H.W. Jannasch, and D.R. Lovley. 1989. Comparison of magnetite particles produced anaerobically by magnetotactic and dissimilatory iron-reducing bacteria. *Geophys. Res. Lett.* **16**: 665-668.
17. **Bazylinski, D.A.**, C.O. Wirsen, and H.W. Jannasch. 1989. Microbial utilization of naturally-occurring hydrocarbons at the Guaymas Basin hydrothermal vent site. *Appl. Environ. Microbiol.* **55**: 2832-2836.
18. Mann, S., N.H.C. Sparks, R.B. Frankel, **D.A. Bazylinski**, and H.W. Jannasch. 1990. Biomineralization of ferrimagnetic greigite (Fe₃S₄) and iron pyrite (FeS₂) in a magnetotactic bacterium. *Nature (London)* **343**: 258-261.
19. Sparks, N.H.C., S. Mann, **D.A. Bazylinski**, D.R. Lovley, H.W. Jannasch, and R.B. Frankel. 1990. Structure and morphology of anaerobically-produced magnetite from a marine magnetotactic bacterium and a dissimilatory iron-reducing bacterium. *Earth Planet. Sci. Lett.* **98**: 14-22.
20. Rodgers, F.G., R.P. Blakemore, N.A. Blakemore, R.B. Frankel, **D.A. Bazylinski**, D. Maratea, and C. Rodgers. 1990. Intercellular structure in a many-celled magnetotactic prokaryote. *Arch. Microbiol.* **154**: 18-22.
21. Heywood, B.R., **D.A. Bazylinski**, A.J. Garratt-Reed, S. Mann, and R.B. Frankel. 1990. Controlled biosynthesis of greigite (Fe₃S₄) in magnetotactic bacteria. *Naturwissenschaften.* **77**: 536-538.
22. Kitchell, J.P., S.V. Nochur, J.K. Marquis, **D.A. Bazylinski**, and H.W. Jannasch. 1991. Microbial oxidation of sulfur in dibenzothiophene. *Resour. Conserv. Recycl.* **5**: 255-263.
23. Hines, M.E., **D.A. Bazylinski**, J.B. Tugel, and W.B. Lyons. 1991. Anaerobic microbial biogeochemistry in sediments from two basins in the Gulf of Maine: evidence for iron and manganese reduction. *Est. Coast. Shelf Sci.* **32**: 313-324.
24. DeLong, E.F., R.B. Frankel, and **D.A. Bazylinski**. 1993. Multiple evolutionary origins of magnetotaxis in bacteria. *Science* **259**: 803-806.

25. Meldrum, F.C., S. Mann, B.R. Heywood, R.B. Frankel, and **D.A. Bazylinski**. 1993. Electron microscope study of magnetosomes in a cultured coccoid magnetotactic bacterium. *Proc. Roy. Soc. Lond. B* **251**: 231-236.
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27. **Bazylinski, D.A.**, A.J. Garratt-Reed, A. Abedi, and R.B. Frankel. 1993. Copper association with iron sulfide magnetosomes in a magnetotactic bacterium. *Arch. Microbiol.* **160**: 35-42.
28. **Bazylinski, D.A.**, B.R. Heywood, S. Mann, and R.B. Frankel. 1993. Fe_3O_4 and Fe_3S_4 in a bacterium. *Nature (London)* **366**: 218.
29. Moskowitz, B.M., R.B. Frankel, and **D.A. Bazylinski**. 1993. Rock magnetic characterization of biogenic magnetite. *Earth Planet. Sci. Lett.* **120**: 283-300.
30. **Bazylinski, D.A.**, A.J. Garratt-Reed, and R.B. Frankel. 1994. Electron microscopic studies of magnetosomes in magnetotactic bacteria. *Microsc. Res. Tech.* **27**: 389-401.
31. Frankel, R.B., and **D.A. Bazylinski**. 1994. Magnetotaxis and magnetic particles in bacteria. *Hyperfine Interactions* **90**: 135-142.
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34. **Bazylinski, D.A.** 1995. Structure and function of the bacterial magnetosome. *ASM News.* **61**: 337-343.
35. **Bazylinski, D.A.**, R.B. Frankel, B.R. Heywood, S. Mann, J.W. King, P.L. Donaghay, and A.K. Hanson. 1995. Controlled biomineralization of magnetite (Fe_3O_4) and greigite (Fe_3S_4) in a magnetotactic bacterium. *Appl. Environ. Microbiol.* **61**: 3232-3239.
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37. **Bazylinski, D.A.** 1996. Controlled biomineralization of magnetic minerals by magnetotactic bacteria. *Chem. Geol.* **132**: 191-198.
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39. Epstein, S.S., **D.A. Bazylinski**, and W. Fowle. 1998. Epibiotic bacteria on several ciliates from marine sediments. *J. Euk. Microbiol.* **45**: 64-70.
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43. Pósfai, M., P.R. Buseck, **D.A. Bazylinski**, and R.B. Frankel. 1998. Iron sulfides from magnetotactic bacteria: structure, compositions, and phase transitions. *Am. Mineral.* **83**: 1469-1481.
44. Dunin-Borkowski, R.E., M.R. McCartney, R.B. Frankel, **D.A. Bazylinski**, M. Pósfai, and P.R. Buseck. 1998. Magnetic microstructure of magnetotactic bacteria by electron holography. *Science* **282**: 1868-1870.
45. Frankel, R.B., J.-P. Zhang, and **D.A. Bazylinski**. 1998. Single magnetic domains in magnetotactic bacteria. *J. Geophys. Res.* **103**: 30601-30604
46. **Bazylinski, D.A.** 1999. Synthesis of the bacterial magnetosomes: the making of a magnetic personality. *Internatl. Microbiol.* **2**: 71-80.
47. Mandernack, K.W., **D.A. Bazylinski**, W.C. Shanks, and T.D. Bullen. 1999. Oxygen and isotope studies of magnetite produced by magnetotactic bacteria. *Science* **285**: 1892-1896.
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