

TAMERA SUE JAHNKE

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Education

B.S. in Chemistry, University of Iowa (Iowa City, IA), May, 1981.
Ph.D. in Chemistry, University of Iowa, August, 1986.

Employment

2006-present	Dean, College of Natural and Applied Sciences – Missouri State Univ.
2005-2006	Acting Associate Provost – Missouri State University
1997-2005	Professor and Head - Department of Chemistry - SMSU
1996	Acting Head - Department of Chemistry - SMSU
1994-1995	Visiting Associate Professor - University of Iowa
1992-1997	Associate Professor - SMSU
1986-1992	Assistant Professor - SMSU

Honors and Awards

Fellow – Missouri Academy of Sciences, April 2005.
2003 Outstanding Advising Award – Missouri Academic Advising Association, September 2003
2003 Excellence in Advising Award – Faculty, March 2003
2003 Phi Eta Sigma - SMSU – Faculty Honorary Member, February 2003
2002 Outstanding IDS110 Teacher – 1st Place
2002 SMSU Nominee for the Thomas Ehrlich Faculty Award for Service-Learning
Honorary Member of Golden Key National Honor Society, SMSU November, 1995.
“Excellence in Teaching Award” from College of Science and Mathematics, SMSU April 26, 1990.

Publications

“Expanding Your Horizons: A Program for Engaging Middle School Girls in Science and Mathematics” Level, Allison V. and Jahnke, Tamera S. *J. of Women and Minorities in Science and Engineering*, **2005**, 11(2), 171-179.

“Concise and Stereospecific Synthesis of Novel Bicyclic Dideoxynucleosides as Potential Antiviral Agents” Zhang, J.; Chao, Q.; Pickering, L.; Jahnke, T. S.; and Nair, V. *Tetrahedron* **1998**, 54, 3113-3124.

“Dinucleotides Incorporating Isomeric Nucleosides: Synthesis, Structural and Stereochemical Characterization, and Enzymology” Jahnke, T. S.; Chao, Q.; and Nair, V. *Nucleosides & Nucleotides* **1997**, 16, 1087-1090.

“Synthesis and Conformational Studies of New Purine Isodideoxynucleosides” Zintek, L. B.; Jahnke, T. S.; Nair, V. *Nucleosides & Nucleotides* **1996**, 15, 69-84.

“2’-Deoxyadenylyl-(3’→5’)-isodideoxyadenosine, a Unique Dinucleotide: Synthesis and Characterization” Jahnke, T. S. and Nair V. *Bioorganic and Medicinal Chemistry Letters* **1995**, 5, 2235-2238

“Homologues of anti-HIV active isodideoxynucleosides” Bolon, P.; Jahnke, T. S.; Nair, V. *Tetrahedron* **1995**, 51, 10443-10452

“Antiviral Activities of Isomeric Dideoxynucleosides of D- and L-Related Stereochemistry” Nair, V. and Jahnke, T. S. *Antimicrobial Agents and Chemotherapy* **1995**, 39, 1017-1029.

“Ion Implantation of New Polymers containing Imide and Amide Units” Wang, Y. Q.; Giedd, R. E.; Mohite, S. S.; Jahnke, T. S.; Bridwell, L. B.; Sofield, C. J. *Materials Letters* **1991**, 12, 21.

NMR Characterization of Silicon Containing Phenylated Soluble Aramids” Jahnke, T. S.; Walker, D.; Mohite, S. S. *Polymer Preprints* **1991**, 32(3), 310.

Ion Implantation of Polymers for Electrical Conductivity Enhancement” Bridwell, L. B.; Giedd, R. E.; Wang, Y. Q.; Mohite, S. S.; Jahnke, T. S. *Nuclear Instruments and Methods, Section B* **1991**, B56/57, 656.

“Electrical Conductivity Enhancement of Polyethersulfone (PES) by Ion Implantation” Lynn B. Bridwell, R. E. Giedd, Wang Yonquiang, S. S. Mohite, Tamera Jahnke, and I. M. Brown *Nuclear Instruments and Methods, Section B* **1991**, B59/60, 1240.

“NMR Study of New Cardo Polyamide-Imides” Jahnke, T. S. and Mohite, S. S. *Magnetic Resonance in Chemistry* **1990**, 28, 1076.

“NMR Spectroscopic Characterization of a Series of New Polyamide-Imides” Jahnke, T. S. and Mohite, S. S. *Polymer Preprints* **1990**, 31(2), 605.

“Model Multifunctional Epoxides Related to Hepoxilin A” Nair, V. and Jahnke, T. S. *Tetrahedron* **1987**, 43, 4257.

“Carbon Elongation with 1,5-Diazapentadienium Salts: Reaction with Aralkyl Ketones” Nair, V. and Jahnke, T. S. *Synthesis* **1984**, 424.

“Novel Intermediates for the Synthesis of Carbocyclic Spiro Compounds” Nair, V. and Jahnke, T. S. *Tetrahedron Lett.* **1984**, 25, 3547.

Conference Presentations

Tamera Jahnke, Steve Bishop, John Bookstaver, Gloria Galanes, Victor Matthews. “Two- and Four-Year Institutional Collaborations to Educate Engaged Citizens” Annual Meeting of the Association of American Colleges and Universities, Washington, DC, January 2014.

Tamera Jahnke, Gloria Galanes, David Hough, Victor Matthews, Tom Peters, Helen Reid and Tom Tomasi. “Shared Governance and the Budgeting Process” National Conference of Academic Deans, Conway, AR, July 2013.

Tamera Jahnke and Frank Einhellig. “Program Review: Policy, Review Cycle and Assessment of the Process – Lessons Learned” Annual Meeting of the Higher Learning Commission, Chicago, IL, April 2013.

Tamera Jahnke and Ken McClure. “Involving the Entire Community: Missouri State University and Sustainability” Annual Meeting of Association for the Advancement of Sustainability in Higher Education (AASHE), Denver, CO, October 2010.

Tamera Jahnke. “Leadership in Mission, Planning, Organizational Change, Accreditation, and Accountability,” Annual Meeting of the Higher Learning Commission, Chicago, IL, April 2007.

Tamera Jahnke. “Service-learning in chemistry: Minors only?” 19th Biennial Conference on Chemical Education, Purdue University, West Lafayette, IN, August 2006.

Tamera Jahnke, William Cheek and James Baker. “The Self-Study Process – New Criteria and Involving the Entire Campus,” Annual Meeting of Higher Learning Commission, Chicago, IL, April, 2005.

Saunders, G., Jahnke, T. and Shade, K. “The Gold Mine: Undergraduate GK-12 Fellows” Paper presented at the National Science Teachers’ Association annual meeting, Dallas, Texas, March, 2005.

Shade, K., Saunders, G. and Jahnke, T. “Competitive Science Activities as Assessment Tools” Workshop presented at the National Science Teachers’ Association annual meeting, Dallas, Texas, March, 2005

Tamera S. Jahnke and Georgianna Saunders “NSF GK-12 Fellows at SMSU: Two Goals Realized” Midwest Meeting of American Chemical Society, Columbia, MO, November, 2003.

Tamera S. Jahnke, Bryan E. Breyfogle, Georgianna Saunders “NSF GK-12 fellows at SMSU: Building Bridges” National Meeting of American Chemical Society, New Orleans, LA, March, 2003.

Crystal Wood, Tamera S. Jahnke, Bryan E. Breyfogle, Georgianna Saunders “NSF GK-12 fellows at SMSU: The role of the fellows” National Meeting of American Chemical Society, New Orleans, LA, March, 2003.

“Building Bridges: Preparing College Science Majors for Service Learning in Middle Schools” Second International Conference on Service Learning Research. Nashville, TN, October 20-22, 2002.

Tamera Jahnke, Georgianna Saunders, and Kathy Shade “Building Bridges: Preparing College Science Majors for Service Learning in Middle Schools” Science Teachers of Missouri Fall Conference, Columbia, MO, October 11-12, 2002.

“Teaching Fellows in K-12 Education” CASL Best Practices in Service-Learning Showcase, October 8, 2002.

White, A., Koenig, C., Bayless, J., Neill, H., Shade, K., Saunders, G., and Jahnke, T. “Science Majors in Middle Schools? More Technology and Lab Work” Missouri Academy of Science, April, 2002.

Kelly, S., Jahnke, T, and Saunders, G. “Service Learning in Science” Missouri Academy of Science, April, 2002.

“Lipid Peroxidation Products – Synthesis and Reactivity” Invited presentation. University of Missouri-Rolla, Department of Chemistry, March 19, 2001.

Allison V. Level and Tamera S. Jahnke “Scientific Creativity: Legacy of Science Education in Southwest Missouri” Missouri Academy of Science, Columbia, MO, April, 2000.

Tavis S. Harris and Tamera S. Jahnke “Improved Synthesis of an Epoxyenone and its Subsequent Reactivity” Midwest Meeting of the American Chemical Society, Quincy, IL, October, 1999.

Ann Marie Doneski and Tamera S. Jahnke “Catalytic Decomposition of Lipid Hydroperoxides” Midwest Meeting of the American Chemical Society, Quincy, IL, October, 1999.

Lance Christie and Tamera Jahnke. “Analysis of Two Stereochemical Epoxyenone Isomers” Annual Missouri Academy of Science Meeting, St. Joseph, Missouri, April, 1998.

Tamera S. Jahnke, R. Scott Martin, Jie Zhang “The Reaction of a Vinylogous Epoxyketone with the Enolate Anion of β -Dicarbonyl Compounds” Midwest Meeting of American Chemical Society, Lake of the Ozarks, MO, October, 1997.

Lance Christie and Tamera S. Jahnke “Stereochemical Analysis of the Vinylogous Epoxyketone Moiety” Midwest Meeting American Chemical Society, Lake of the Ozarks, MO, October 1997.

Tamera S. Jahnke, R. Scott Martin, Jie Zhang “The Reaction of a Vinylogous Epoxyketone with the Enolate Anion of β -Dicarbonyl Compounds” National Meeting of American Chemical Society, Las Vegas, NV, September, 1997.

Jie Zhang and Tamera S. Jahnke “Reaction of Stabilized Enolate Anions with 5,6-Epoxy-3-nonen-2-one” Missouri Academy of Science Meeting, Warrensburg, MO, April 1997.

Tamera S. Jahnke, Qi Chao, Vasu Nair “Dinucleotides of Dideoxyisomeric Adenosine: Synthesis and Characterization” National Meeting of American Chemical Society, Orlando, FL, August 1996.

R. Scott Martin and Tamera S. Jahnke “Reactivity of the Vinylogous Epoxyketone Moiety” Missouri Academy of Science, Springfield, MO, April 1996.

Invited Lecture: Missouri Academy of Science 1996 “A Salute to the Women of Science”

Tamera S. Jahnke and Vasu Nair “Termination of Viral DNA Synthesis: Preparation and Characterization of a Unique Dinucleotide DNA Model” Midwest Meeting of American Chemical Society, Joplin, MO, November, 1995.

Guen Sook Jeon, Lawrence B. Zintek, Tamera S. Jahnke and Vasu Nair "New Isomeric Analogues of Anti-HIV Active Azidonucleosides" Midwest Meeting American Chemical Society, Joplin, MO, November, 1995.

Seung B. Ha, Tamera S. Jahnke and Vasu Nair "Synthesis of Novel Nucleosides as Potential Agonists for Adenosine Receptors" Midwest Meeting American Chemical Society, Joplin, MO, November, 1995.

Tamera S. Jahnke, Lawrence B. Zintek and Vasu Nair "Conformational Studies of Purine Dideoxynucleosides by Carbon-13 NMR Spectroscopy" Midwest Meeting American Chemical Society, Joplin, MO, November, 1995.

Tamera S. Jahnke and Vasu Nair "A Unique Dinucleoside Phosphate: Synthesis and Characterization" National Meeting American Chemical Society, Chicago, IL, August, 1995.

Tamera S. Jahnke "Undergraduate Research in Chemistry at Southwest Missouri State University" National Conference of Council on Undergraduate Research, Bates College, Lewiston, Maine, June, 1994.

Tamera S. Jahnke, Dean Flanders and Sanjiv Mohite "NMR Characterization of New Polyamide-Imides Containing Isophthaloyl Units" 34th Experimental NMR Conference (ENC), St. Louis, MO, March 1993.

Tamera S. Jahnke "Women in Science" Interface '93 Meeting, Lake of the Ozarks, MO, February, 1993.

Tamera S. Jahnke, Dean Flanders and Sanjiv Mohite "NMR Characterization of New Polyamide-Imides Containing Isophthaloyl Units" Midwest Meeting American Chemical Society, Lawrence, KS, November, 1992.

Tamera S. Jahnke "Women in Science - A Call to Action" Interface '92 Meeting, Lake of the Ozarks, MO, February, 1992.

Tamera S. Jahnke, David J. Walker and S. S. Mohite "Application of NMR Techniques for the Characterization of Silicon-Containing Phenylated Soluble Aramids" National Meeting American Chemical Society, New York City, NY, August, 1991.

Tamera S. Jahnke and A. P. Toste "NSF Catalyzes the Incorporation of NMR and GC/MS into the Undergraduate Curriculum: A Case Study" National Meeting American Chemical Society, New York City, NY, August, 1991.

Tamera S. Jahnke and S. Mohite "NMR Spectroscopic Characterization of a Series of New Polyamide-Imides" National Meeting American Chemical Society, Washington, D.C., August, 1990.

Tamera S. Jahnke and S. Mohite "Nuclear Magnetic Resonance Study of New Polyamide-Imides" Missouri Academy of Science, St. Louis, MO, April 1990.

Tamera S. Jahnke and Vernon J. Thielmann "Evaluation, Selection and Utilization of FT-NMR for the Undergraduate Curriculum" National Meeting American Chemical Society, Miami, FL, September, 1989. (Presented by VJT)

Tamera S. Jahnke, James F. O'Brien, S. Elsea, G. Garrison "Selectivity and Reactivity of an Aliphatic Vinylogous Epoxy Ketone" National Meeting American Chemical Society, Dallas, TX, April, 1989.

Tamera S. Jahnke, S. Elsea, G. Garrison "Nucleophilic Additions to a Vinylogous Epoxyketone" Missouri Academy of Science, April, 1989.

Tamera S. Jahnke, Steffanie Crossland, Sarah Elsea, Greg Garrison "Selectivity and Reactivity of an Aliphatic Vinylogous Epoxy Ketone" Midwest Regional Meeting American Chemical Society, Iowa City, IA, November, 1988.

Tamera S. Jahnke "Synthetic Utility of the Vinylogous Epoxy Ketone" Missouri Academy of Science, April 1988.

Tamera S. Jahnke "Photolysis of (E)-5,6-Trans-Epoxy-3-Nonen-2-One" Midwest Regional Meeting American Chemical Society, Wichita, KS, November 1987.

Funded Grants

Tamera Jahnke, Georgianna Saunders, National Science Foundation, 2001-2005, "Graduate Teaching Fellows in K-12 Education," \$1,104,362 (includes the summer supplement for middle school teachers to do research at Missouri State)

NSF CCLI Grant #9950853 "Upgrade of NMR Spectrometer" \$22,000 funded 1999.

Natural Sprout Company "Analysis of Ground Raw and Sprouted Grains" \$1,500.00 funded October 1997.

Heatway "Analysis of Rubber Products" \$4,500.00 funded 1996.

Sabbatical Leave proposal submitted 1993 was accepted at the March 1994 Board of Regents Meeting.

Faculty Travel Grant to attend 32nd National Organic Symposium in Minneapolis, \$534. Funded by the Janssen Research Foundation, a member of the Johnson & Johnson Family of Companies in 1990.

SMSU Faculty Research Grant "Chemical Modification of Ion Implanted Polymers" \$3,000 funded 1990.

NSF-ILI Proposal for GC-Mass Spectrometer funded 1990, \$35,952. (Co-PI with Biagioni, Grindstaff, Toste)

SMSU Foundation Grant "Microscaling Organic Laboratory Experimentation" \$4,830 funded 1989-1990. (Co-PI with V. Thielmann)

Research Corporation "A Study of the Formation of Furanoid Fatty Acids" \$20,800 funded 1988.

SMSU Faculty Research Grant "A Study of the Formation of Furanoid Fatty Acids" \$1,000 funded 1987.

Graduate Student Theses

R. Scott Martin "Reactivity of the Vinylogous Epoxyketone Moiety" Summer 1996

Jie Zhang "Reactivity of the Vinylogous Epoxyketone Moiety with Stabilized β -Dicarbonyl Enolate Anions" August 1997

Lance Christie "Study of 4(E)-Trans-6,7-Epoxy-2,2-Dimethyl-4-Decen-2-One" August 1998

Ann Doneski-Craig, "Synthesis and Catalytic Decomposition of a Lipid Hydroperoxide" July 2000

Undergraduate Student Guided Presentations

Undergraduate students working in my research group have presented their work (19 presentations) at the national and regional meetings of the American Chemical Society, Missouri Academy of Science and other symposia. I have supervised over 25 undergraduate students while a faculty member in the chemistry department. Five of these students have finished Ph.D.'s at Vanderbilt University, University of Illinois, University of Florida, Oklahoma State University, and University of Missouri-Columbia.

Rena J. Belcher, Brendan Scott, Tamera S. Jahnke "Reactivity of the Vinylogous Epoxyketone with the Enolates of Dialkyl Malonates" Midwest Meeting American Chemical Society, Lake of the Ozarks, MO, October, 1997.

Rena J. Belcher, Tamera S. Jahnke, James F. O'Brien "A Successful Program to Aid Boy Scouts Earn Their Chemistry Badge" National Meeting American Chemical Society, Las Vegas, NV, September, 1997.

D. Grant Smith, Tamera S. Jahnke and Sanjiv Mohite "NMR Characterization of New Fluorine Containing Polyamide-Imides" Midwest Meeting American Chemical Society, Kansas City, MO, November, 1994.

D. Grant Smith, Tamera S. Jahnke and Sanjiv Mohite "NMR Characterization of New Fluorine Containing Polyamide-Imides" 1994 Sigma Xi Symposium, SMSU, Springfield, MO, April, 1994.

Daniel Luehrs, Charles J. Smith and Tamera S. Jahnke "Addition of a Grignard Reagent with a Vinylogous Epoxy Ketone" Midwest Meeting American Chemical Society, Lawrence, KS, November, 1992.

C. Jeff Smith, Daniel Luehrs and Tamera S. Jahnke “The Reaction of an Aliphatic Vinylogous Epoxy Ketone with Methyl Magnesium Chloride” S1992 Sigma Xi Symposium, SMSU, April, 1992 and Missouri Academy of Science, Rolla, MO, April, 1992.

Mike Morton, Tamera S. Jahnke and Sanjiv S. Mohite “Complete Characterization by NMR of New Polyamide-imides” Missouri Academy of Science, Fulton, MO, April, 1991.

Mike Morton, Tamera S. Jahnke and Sanjiv S. Mohite “Complete Characterization by NMR of New Hexafluoroisopropylidene Containing Polyamide-imides” Midwest Meeting American Chemical Society, Manhattan, KS, November, 1990.

Belinda Jacobsmeyer and Tamera S. Jahnke “Surface Analysis of Ion Implanted Polyethersulfone by FT-IR-ATR” Midwest Meeting American Chemical Society, Manhattan, KS, November, 1990.

David Walker, Tamera S. Jahnke and Sanjiv S. Mohite “NMR Characterization of Silicon Containing Phenylated Soluble Aramids” Midwest Meeting American Chemical Society, Manhattan, KS, November, 1990.

Melissa Nelsen and Tamera S. Jahnke “Palladium (0)-Catalyzed Reaction of (E)-Trans-5,6-Epoxy-3-nonen-2-one” Midwest Meeting American Chemical Society, St. Louis, MO, November, 1989.

Sarah Elsea and Tamera S. Jahnke “The Reaction of an Aliphatic Vinylogous Epoxy Ketone with Methyl Lithium” National Meeting American Chemical Society, Dallas, TX, April, 1989.

George Wakely and Tamera S. Jahnke “Acid Catalyzed Reactions with a Model Lipid Oxidation Product” Missouri Academy of Science, April 1989.

Sarah Elsea and Tamera S. Jahnke “The Reaction of an Aliphatic Vinylogous Epoxy Ketone with Methylithium” Midwest Meeting American Chemical Society, Iowa City, IA, November, 1988.

Greg Garrison and Tamera S. Jahnke “Photolysis of a Vinylogous Epoxy-Ketone” Undergraduate Research Symposium, Washington University, St. Louis, MO, October, 1988.

Greg Garrison and Tamera S. Jahnke “Photolysis of a Vinylogous Epoxy-Ketone” Third International Chemical Congress of North America, Toronto, Canada, June, 1988.

Dennis W. Smith and Tamera S. Jahnke “Synthesis of 2-Methyl-5-(1-hydroxybutyl)furan” Missouri Academy of Science, April, 1988.

Greg Garrison and Tamera S. Jahnke “Photolysis of Vinylogous Epoxy Ketone” Missouri Academy of Science, April, 1988.

Tamera S. Jahnke, Ben Bonner, Greg Garrison, and Dennis Smith “Study of the Synthetic Utility of Aliphatic Vinylogous Epoxy-ketones” Midwest Meeting American Chemical Society, Wichita, KS, November, 1987.

Professional Memberships

American Chemical Society
ACS Organic Division, ACS Chemical Education Division
ACS Ozark Section (Section Chair 1988 and 1998)
National Science Teachers Association - NSTA
Science Teachers of Missouri - STOM
Sigma Xi
Missouri Academy of Science
Vice President 2000-2001
President-elect 2001-2002
President 2002-2003
Chair – Institutional Membership 2003-present

Committee work 2010-present

University	HLC Steering Committee (2010-present) Sustainability Advisory Committee – co-chair
Community	Active member of Springfield Downtown Rotary (2007-) Elected Board member 2015- Member of the Higher Learning Commission (HLC) Peer Corps Trained team chair Graduate of Leadership Springfield Class XXII Member of the Board of Directors of the Discovery Center (1997-2003) Vice President of Exhibits and Programs (1998-2000) President of the Board (2000-2001) Member of the Board of Directors of the UMHE Campus Ministry (1992-2002, 2006-) President of Board (1996-1997), Secretary of the Board (2001-2002) Vice President of Board (2008) President of Board (2009-2010) Member of the Board of Directors of the Ecumenical Center – SMSU (1996-2001) President of the Board (1998-2001) Prince of Peace Lutheran Church – Council President 2003-2004 Council Secretary 2008-2009