

Steven Lee Daniel

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Education

<i>Institution</i>	<i>Major</i>	<i>Degree</i>	<i>Year</i>
Illinois College	Biology	B.S.	1977
South Dakota State University	Microbiology	M.S.	1980
Iowa State University	Microbiology	Ph.D.	1988

Professional Work Experience

<i>Year</i>	<i>Title</i>	<i>Department and Institution</i>
1973 - 1977	Laboratory Assistant	Biology Dept., Illinois College
1977 - 1980	Research Assistant	Microbiology Dept., South Dakota State Univ.
1980	Instructor	Microbiology Dept., South Dakota State Univ.
1980 - 1981	Teaching Assistant	Microbiology Dept., Iowa State Univ.
1981 - 1985	Research Assistant	Microbiology Dept., Iowa State Univ.
1985 - 1989	Research Associate	Biology Dept., Univ. Mississippi
1989 - 1991	Assistant Professor	Biology Dept., Univ. Mississippi
1991 - 1994	Senior Staff Scientist	BITÖK, Univ. Bayreuth
1994 - 1996	Assistant Professor	BITÖK, Univ. Bayreuth
1996 - 1997	Instructor	Biology Dept., Western Kentucky Univ.
1997 - 2008	Associate Professor	Dept. Biological Sciences, Eastern Illinois Univ., (Graduate faculty, 1998; tenured, 2003)
2005-2006	Sabbatical	Dept. Crop Sciences, National Soybean Research Center, University of Illinois (Glen Hartman)
2008 – 2017	Professor	Dept. Biological Sciences, Eastern Illinois Univ.
2013-2014	Sabbatical	Dept. Animal Sciences, University of Illinois (Rod Mackie)
2017	Professor Emeritus	Dept. Biological Sciences, Eastern Illinois Univ.

Awards and Honor Societies

Lucas Prize in Biological Science, Illinois College (1977)
 Gamma Sigma Delta, South Dakota State University (1978)
 Phi Kappa Phi, South Dakota State University (1978)
 Sigma Xi, Eastern Illinois University (1998)
 The Graduate Dean's Award of Excellence in Research, Eastern Illinois University (2001)
 Achievement and Contribution Award (in research), Eastern Illinois University (2007, 2009)
 The Graduate Dean's Council on Faculty Research Award, Eastern Illinois University (2007)
 Achievement and Contribution Award (in teaching), Eastern Illinois University (2012)
 The Graduate Dean's Award of Excellence in Research, Eastern Illinois University (2014)
 Professional Advancement Increase (PAI), Eastern Illinois University (2015)

Publications

- Daniel, S.L., P.A. Hartman, M.J. Allison. 1987. Microbial degradation of oxalate in the gastrointestinal tracts of rats. *Appl. Environ. Microbiol.* 53:1793-1797.

2. Savage, D.M., Z. Wu, S.L. Daniel, L.L. Lundie, Jr., H.L. Drake. 1987. Carbon monoxide-dependent chemolithotrophic growth of *Clostridium thermoautotrophicum*. *Appl. Environ. Microbiol.* 53:1902-1906.
3. Daniel, S.L., P.A. Hartman, and M.J. Allison. 1987. Intestinal colonization of laboratory rats with *Oxalobacter formigenes*. *Appl. Environ. Microbiol.* 53:2767-2770.
4. Wu, Z., S.L. Daniel, H.L. Drake. 1988. Characterization of a CO-dependent O-demethylating enzyme system from the acetogen *Clostridium thermoaceticum*. *J. Bacteriol.* 170:5705-5708.
5. Daniel, S.L., Z. Wu, H.L. Drake. 1988. Growth of thermophilic acetogenic bacteria on methoxylated aromatic acids. *FEMS Microbiol. Lett.* 52:25-28.
6. Yang, H., S. L. Daniel, H. L. Drake. 1989. Nickel transport by the thermophilic acetogen *Acetogenium kivui*. *Appl. Environ. Microbiol.* 55:1078-1081.
7. Daniel, S.L., H.M. Cook, P.A. Hartman, M.J. Allison. 1989. Enumeration of anaerobic oxalate-degrading bacteria in the ruminal contents of sheep. *FEMS Microbiol. Ecol.* 62: 329-334.
8. Hsu, T., S.L. Daniel, M.F. Lux, H.L. Drake. 1990. Biotransformations of carboxylated aromatic compounds by the acetogen *Clostridium thermoaceticum*: generation of growth-supportive CO₂ equivalents under CO₂-limited conditions. *J. Bacteriol.* 172:212-217.
9. Daniel, S.L., T. Hsu, S.I. Dean, H.L. Drake. 1990. Characterization of the H₂- and CO-dependent chemolithotrophic potentials of the acetogens *Clostridium thermoaceticum* and *Acetogenium kivui*. *J. Bacteriol.* 172:4464-4471.
10. Daniel, S.L., E.S. Keith, H. Yang, Y.-S. Lin, H.L. Drake. 1991. Utilization of methoxylated aromatic compounds by the acetogen *Clostridium thermoaceticum*: expression and specificity of the CO-dependent O-demethylating activity. *Biochem. Biophys. Res. Commun.* 180:416-422.
11. Parekh, M., E.S. Keith, S.L. Daniel, H.L. Drake. 1992. Comparative evaluation of the metabolic potentials of different strains of *Peptostreptococcus productus*: utilization and transformation of aromatic compounds. *FEMS Microbiol. Lett.* 94:69-74.
12. Daniel, S.L., H.L. Drake. 1993. Oxalate- and glyoxylate-dependent growth and acetogenesis by *Clostridium thermoaceticum*. *Appl. Environ. Microbiol.* 59:3062-3069.
13. Daniel, S.L., P.A. Hartman, M.J. Allison. 1993. Intestinal colonization of laboratory rats by anaerobic oxalate-degrading bacteria: effects on urinary and fecal excretion of dietary oxalate. *Micro. Ecol. Health Dis.* 6:277-283.
14. Seifritz, C., S.L. Daniel, A. Gößner, H.L. Drake. 1993. Nitrate as a preferred electron sink for the acetogen *Clostridium thermoaceticum*. *J. Bacteriol.* 175:8008-8013.
15. Gößner, A., S.L. Daniel, H.L. Drake. 1994. Acetogenesis coupled to the oxidation of aromatic aldehyde groups. *Arch. Microbiol.* 161:126-131.
16. Drake, H.L., S.L. Daniel, C. Matthies, K. Küsel. 1994. Acetogenesis: reality in the laboratory, uncertainty elsewhere. *In: H. L. Drake (ed.), Acetogenesis*, p. 273-302. Chapman and Hall, New York.
17. Allison, M.J., S.L. Daniel, N. Cornick. 1995. Oxalate-degrading bacteria. *In: S. R. Khan (ed.), Calcium oxalate in biological systems*, p. 131-168. CRC Press, Inc., Boca Raton, Florida.
18. Parekh, M., H.L. Drake, S.L. Daniel. 1996. Bidirectional transformation of aromatic aldehydes by *Desulfovibrio desulfuricans* under nitrate-dissimilating conditions. *Lett. Appl. Microbiol.* 22:115-120.
19. Misoph, M., S.L. Daniel, H.L. Drake. 1996. Bidirectional usage of ferulate by the acetogen *Peptostreptococcus productus*: CO₂ and aromatic acrylate groups as competing electron acceptors. *Microbiology* 142:1983-1988.
20. Drake, H.L., S.L. Daniel, K. Küsel, C. Matthies, C. Kuhner, S. Braus-Stromeyer. 1997. Acetogenic bacteria: what are the in situ consequences of their diverse metabolic versatilities? *BioFactors* 9:1-12.
21. Seifritz, C., J. Fröstl, H.L. Drake, S.L. Daniel. 1999. Glycolate as a new growth-supportive substrate for the acetogens *Moorella thermoacetica* and *Moorella thermoautotrophica*. *FEMS Microbiol. Lett.* 170:399-405.
22. Seifritz, C., J. Fröstl, H.L. Drake, S.L. Daniel. 2002. Oxalate and glyoxylate metabolism by the acetogens *Moorella thermoacetica* and *Moorella thermoautotrophica*: influence of nitrate on carbon and reductant flow. *Arch. Microbiol.* 178:457-464.
23. Seifritz, C., H.L. Drake, S.L. Daniel. 2003. Nitrite as an energy-conserving electron sink for the acetogenic bacterium *Moorella thermoacetica*. *Curr. Microbiol.* 46:329-333.
24. Daniel, S.L., C. Pilsel, H.L. Drake. 2004. Oxalate metabolism by the acetogenic bacterium *Moorella thermoacetica*. *FEMS Microbiol. Lett.* 231:39-43.
25. Drake, H.L., S.L. Daniel. 2004. Physiology of the thermophilic acetogen *Moorella thermoacetica*. *Res. Microbiol.* 155:422-436.

26. Daniel, S.L., C. Pilsel, H.L. Drake. 2007. Anaerobic oxalate consumption by microorganisms in forest soils. *Res. Microbiol.* 158:303-309.
27. Culbertson, B.J., N.C. Furumo, S.L. Daniel. 2007. Impact of nutritional supplements and monosaccharides on growth, oxalate accumulation, and culture pH by *Sclerotinia sclerotiorum*. *FEMS Microbiol. Lett.* 270:132-138.
28. Daniel, S.L., G.L. Hartman, E.D. Wagner, M.J. Plewa. 2007. Mammalian cell cytotoxicity analysis of soybean rust fungicides. *Bull. Environ. Contamin. Toxicol.* 78:474-478.
29. Culbertson, B., J. Krone, E. Gatebe, N. Furumo, S. Daniel. 2007. Impact of carbon sources on growth and oxalate synthesis by the phytopathogenic fungus *Sclerotinia sclerotiorum*. *World J. Microbiol. Biotechnol.* 23:1357-1362.
30. Drake, H.L., A. Göbner, S.L. Daniel. 2008. Old acetogens, new light. In: Wiegel, J. (ed.), *Incredible Anaerobes*. *Ann. N.Y. Acad. Sci.* 1125:100-128.
31. Goradia, L., G.L. Hartman, S.L. Daniel. 2009. Evaluation of glyphosate-tolerant soybean cultivars for resistance to bacterial pustule. *Eur. J. Plant Pathol.* 124:331-335.
32. Janezic, K.J., E.W. Hendricks, A.N. Theisen, B. Ferry, M.E. Roberts, S. Murphy, S.M. Scott, B.A. Janiga, T. Johnson, K. Hung, S.L. Daniel. 2013. Phenotypic and genotypic characterization of *Escherichia coli* isolated from untreated surface waters. *The Open J. Microbiol.* 7:9-19.
33. Penn, C.D., S.L. Daniel. 2013. Salicylate degradation by the fungal plant pathogen *Sclerotinia sclerotiorum*. *Curr. Microbiol.* 67:218-225.
34. Ellis, M.L., K.J. Shaw, S.B. Jackson, S.L. Daniel, J. Knight. 2015. Analysis of commercial kidney stone probiotic supplements. *Urology* (doi: 10.1016/j.urology.2014.11.013) 85(3):517-21.
35. Doden, H., L. Sallam, S. Devendran, L. Ly, G. Doden, S. Daniel, J.M.P. Alves, J. Ridlon. 2018. Metabolism of oxo-bile acids and characterization of recombinant 12 α -hydroxysteroid dehydrogenases from bile acid 7 α -dehydroxylating human gut bacteria. *Appl. Environ. Microbiol.* 84:e00235-18. <https://doi.org/10.1128/AEM.00235-18>
36. Bollinger, P.B., E.K. Bollinger, S.L. Daniel, R.A. Gonser, E.M. Tuttle. 2018. Partial incubation during egg laying reduces eggshell microbial loads in a temperate-breeding passerine. *J. Avian Biol.* 49:jav-01560. doi:10.1111/jav.01560
37. Devendran, S., R. Shrestha, J.M.P. Alves, P. Wolf, L. Ly, Á. Hernández, C. Méndez-García, A. Inboden, J. Wiley, O. Paul, A. Allen, E. Springer, C. Wright, C. Fields, S. Daniel, and J. Ridlon. 2019. *Clostridium scindens* ATCC 35704: integration of nutritional requirements, the complete genome sequence, and global transcriptional responses to bile acids. *Appl. Environ. Micro.* 85:e00052-19 (<https://doi.org/10.1128/AEM.00052-19>)
38. Daniel, S.L., L. Moradi, H. Paiste, K.D. Wood, D.G. Assimios, R.P. Holmes, L. Nazzal, M. Hatch, and J. Knight. 2021. 40 Years of *Oxalobacter formigenes*, a gutsy oxalate-degrading specialist. *Appl. Environ. Microbiol.* 87:e0054421 [10.1128/AEM.00544-21](https://doi.org/10.1128/AEM.00544-21)
39. Lee, J.W., E.S. Cowley, P.G. Wolf, H.L. Doden, T. Mura, K.Y.O. Caicedo, L.K. Ly, F. Sun, H. Takeik, H. Nittono, S.L. Daniel, I. Cann, H.R. Gaskins, K. Anantharaman, J.M.P. Alves, and J.M. Ridlon. 2022. Formation of secondary allo-bile acids by novel enzymes from gut Firmicutes. *Gut Microbes* 14:e2132903.
40. Ridlon, J.M., S.L. Daniel, H.R. Gaskins. 2023. The Hylemon-Björkhem pathway of bile acid 7-dehydroxylation: history, biochemistry, and microbiology. *J. Lipid Research*, 10.1016/j.jlr.2023.100392
41. Fernandez-Materan, F.V., K.Y.O. Caicedo, A.G. Hernandez, S.L. Daniel, J.M.P. Alves, J.M. Ridlon. Complete genome sequence of the archetype bile acid 7 α -dehydroxylating bacterium, *Clostridium scindens* VPI 12708, isolated from human feces, circa 1980. *Microbiology Resource Announcements (Genome Sequences)* (accepted).

Invited Seminars

Physiology Council Mini-Symposium, Ames, Iowa, 1982

Gordon Conference on Calcium Oxalate, Plymouth, New Hampshire, 1989

Food and Drug Administration, Fishery Research Branch, Dauphin Island, Alabama, 1990

Urologische Universitätsklinik und Poliklinik, Universität Ulm, Germany, 1992

Mikrobiologisches Seminar and Kolloquium, Universität Bayreuth, Germany, 1993

Western Kentucky University, Bowling Green, Kentucky, 1997

Eastern Illinois University, Botany Club, Charleston, Illinois, 1998

EPA, Gulf Ecology Branch, Gulf Breeze, Florida, 1999

North Central Soybean Research Program – White Mold Group, Madison, Wisconsin, 2002

FASEB Conference, Calcium Oxalate in Biological Systems, Saxtons River, Vermont, 2002
University of Wisconsin – Madison, Molecular and Environmental Toxicology Center, 2003
University of West Florida, Department of Biology, 2005
Eastern Illinois University, Botany Club, Charleston, Illinois, 2009
9th International Primary Hyperoxaluria Workshop, New York, New York, 2010
Missouri University of Science and Technology, Rolla, Missouri, 2012
11th Annual International Primary Hyperoxaluria Workshop, Chicago, IL, 2014
Department of Ecological Microbiology, Universität Bayreuth, Germany, 2016
Department of Aquatic Geomicrobiology, Friedrich Schiller Universität, Jena, Germany, 2016
Department of Molecular Microbiology and Bioenergetics, Goethe Universität, Frankfurt, Germany, 2016
GRC-AEM, Discussion Leader, Mount Holyoke College, S. Hadley, MA, 2019

Attendance and Participation at Scientific Meetings

American Society for Microbiology, annual meeting, New Orleans, Louisiana, 1983, 1989, 1996, 2004
XVII Conference on Rumen Function, Chicago, Illinois, 1983
American Society for Microbiology, annual meeting, Las Vegas, Nevada, 1985, 1994
American Society for Microbiology, annual meeting, Washington, D.C., 1986, 1995, 2003
American Society for Microbiology, annual meeting, Atlanta, Georgia, 1987, 1998
American Society for Microbiology, 88th annual meeting, Miami, Florida, 1988
14th Int. Congress of Biochemistry, Prague, Czechoslovakia, 1988
Gordon Conference on Calcium Oxalate, Plymouth, New Hampshire, 1989, 1991
American Society for Microbiology, 90th annual meeting, Anaheim, California, 1990
American Society for Microbiology, 91st annual meeting, Dallas, Texas, 1991
7th Int. Symposium on Microbial Growth on C₁ Compounds, Warwick, U.K., 1992
Vereinigung für Allgemeine und Angewandte Mikrobiologie, Leipzig, Germany, 1993
Bryant 70th Symposium: Rumen Microbiology, Urbana, Illinois, 1995
Vereinigung für Allgemeine und Angewandte Mikrobiologie, Bayreuth, Germany, 1996
Illinois State Academy of Sciences, annual meeting, Chicago, Illinois, 1998, 2006
Illinois State Academy of Sciences, 91st annual meeting, Carbondale, Illinois, 1999
American Society for Microbiology, 99th annual meeting, Chicago, Illinois, 1999
American Society for Microbiology, annual meeting, Orlando, Florida, 2001, 2006
Gordon Conference on Applied and Environmental Microbiology, New London, Connecticut, 2001
FASEB Conference on Calcium Oxalate in Biological Systems, Saxtons River, Vermont, 2002
Illinois State Academy of Sciences, 95th annual meeting, Normal, Illinois, 2003
Illinois State Academy of Sciences, annual meeting, Charleston, Illinois, 2004, 2011
Congress on Gastrointestinal Function, Chicago, Illinois, 2005, 2009, 2011, 2013, 2015, 2017
Illinois State Academy of Sciences, 99th annual meeting, Springfield, Illinois, 2007
Incredible Anaerobes: From Physiology to Genomics to Fuels, Athens, Georgia, 2007
Illinois State Academy of Sciences, 100th annual meeting, Champaign-Urbana, Illinois, 2008
American Society for Microbiology, 108th annual meeting, Boston, Massachusetts, 2008
2nd ASM Conference on Beneficial Microbes, San Diego, California, 2008
Anion Transporters and Oxalate Homeostasis: From Genes to Diseases, Rockville, Maryland, 2008
Illinois State Academy of Sciences, annual meeting, Edwardsville, Illinois, 2002, 2009, 2016
American Society for Microbiology, 110th annual meeting, San Diego, California, 2010
Illinois State Academy of Sciences, 102nd annual meeting, Decatur, Illinois, 2010
Gordon Conference-Molecular Basis of Microbial One-Carbon Metabolism, Lewiston, Maine, 2010, 2012
9th International Primary Hyperoxaluria Workshop, New York, New York, 2010
1st International NADC Animal Health and Food Safety Research Symposium, Ames, Iowa, 2011
Extremophiles: Key to Bioenergy? Athens, Georgia, 2011
1st Symposium on Biomass Conversion, Urbana-Champaign, 2011
American Society for Microbiology, 113th annual meeting, Denver, Colorado, 2013
Illinois State Academy of Sciences, 106th annual meeting, University Park, Illinois, 2014

Gordon Conference-Molecular Basis of Microbial C1-Metabolism, South Hadley, Massachusetts, 2014
 Illinois State Academy of Sciences, annual meeting, Macomb, Illinois, 2001, 2015
 R.O.C.K. (Research on Calculus Kinetics), New York, 2016
 CaOx Translational Summit and R.O.C.K. (Research on Calculus Kinetics), Madison, Wisconsin, 2017
 Indiana Branch of the American Society for Microbiology, Turkey Run State Park, Indiana, 2017
 Indiana Branch of the American Society for Microbiology, University of Indianapolis, Indianapolis, IN, 2018

Abstracts

1. Daniel, S. L., M. J. Allison, and P. A. Hartman. 1983. Enumeration, isolation, and characterization of anaerobic oxalate-degrading bacteria from the rat cecum. *Ann. Meet. Am. Soc. Microbiol.*, I118, p. 159.
2. Daniel, S. L., H. M. Cook, and M. J. Allison. 1983. Enumeration of anaerobic oxalate-degrading bacteria from the sheep rumen. *Conference on Rumen Function*, p. 22.
3. Daniel, S. L., M. J. Allison, and P. A. Hartman. 1985. Oxalate degradation in the gastrointestinal tract of white laboratory rats. *Ann. Meet. Am. Soc. Microbiol.*, I-72, p. 158.
4. Savage, M.D., S.L Daniel, L.L. Lundie, Jr., and H.L. Drake. 1986. Role of CO in carbon monoxide-dependent chemolithotrophic growth of the acetogen *Clostridium thermoautotrophicum* and comparative assessment with *Clostridium thermoaceticum*. *Int. Symp. Microbial Growth on C₁ Compounds (Groningen, NL)*, p. 26.
5. Daniel, S. L., H. M. Cook, and M. J. Allison. 1986. Concentration of *Oxalobacter formigenes* in the rumen of sheep: effect of dietary oxalate. *Ann. Meet. Am. Soc. Microbiol.*, I-13, p. 167.
6. Wu, Z., S. L. Daniel, and H. L. Drake. 1988. Expression of syringate-dependent proteins in *Clostridium thermoaceticum*. *Ann. Meet. Am. Soc. Microbiol.*, H-79, p. 158.
7. Daniel, S., Z. Wu, and H. Drake. 1988. Physiology and enzymology of thermophilic acetogenesis from methoxylated aromatics: a one-carbon metabolic process. *14th Int. Congr. Biochem. (Prague CZ)*, TH103, p. 89.
8. Daniel, S. L., and H. L. Drake. 1988. Acetogenesis from methoxylated aromatic acids by *Clostridium thermoaceticum*. *Ann. Meet. Am. Soc. Microbiol.*, I-105, p. 198.
9. Yang, H., S. L. Daniel, T. Hsu, and H. L. Drake. 1989. Metabolism of nickel by the thermophilic acetogen *Acetogenium kivui*. *Ann. Meet. Am. Soc. Microbiol.*, K-162, p. 272.
10. Hsu, T., S. Daniel, and H. Drake. 1989. Metabolism of nonmethoxylated aromatic compounds by the acetogen *Clostridium thermoaceticum*: evidence for an aromatic-decarboxylating enzyme system. *Ann. Meet. Am. Soc. Microbiol.*, K-183, p. 275.
11. Drake, H., S. Daniel, T. Hsu, E. Keith, Z. Wu, L. Lundie, and S. Dean. 1989. One-carbon metabolic potentials and new catalytic activities of *Clostridium thermoaceticum*. *6th Int. Symp. Micro. Growth on C₁ compounds*, P414.
12. Daniel, S.L., T. Hsu, S.I. Dean, and H.L. Drake. 1989. Autotrophic growth potentials and enzyme profiles of the acetogens *Clostridium thermoaceticum* and *Acetogenium kivui*. *Ann. Meet. Am. Soc. Microbiol.*, K-99, p. 261.
13. Daniel, S. L., E. S. Keith, H. Yang, and H. L. Drake. 1990. Further evaluation of the expression and specific of the O-demethylating enzyme system (ODES) of the acetogen *Clostridium thermoaceticum*. *Ann. Meet. Am. Soc. Microbiol.*, K-149, p. 244.
14. Daniel, S. L., and H. L. Drake. 1991. Acetogenesis from two-carbon compounds by *Clostridium thermoaceticum*. *Gen. Meet. Am. Soc. Microbiol.*, K-137, p. 237.
15. Lux, M.F., M. Parekh, E.S. Keith, S.L. Daniel, J.M. Akagi, and H.L. Drake. 1992. Utilization of aromatic acrylate groups by acetogenic bacteria under CO₂-limited conditions. *Gen. Meet. Am. Soc. Microbiol.* K-166, p. 284.
16. Daniel, S.L., M. Misoph, A. Gößner, and H.L. Drake. 1992. Growth of acetogenic bacteria in the absence of autotrophic CO₂ fixation to acetate. *7th Int. Symp. Microbial Growth on C₁ Compounds*, C-133.
17. Daniel, S.L., and H.L. Drake. 1993. Oxalate- and glyoxylate-dependent growth and acetogenesis by *Clostridium thermoaceticum*. *Vereinigung für Allgemeine und Angewandte Mikrobiologie (VAAM) Tagung*, P-119, p. 45.
18. Daniel, S. L., and C. Wagner. 1994. Enzymological studies on the mechanism of oxalate-dependent acetogenesis by *Clostridium thermoaceticum*. *Gen. Meet. Am. Soc. Microbiol.*, K-74, p. 288.
19. Daniel, S. L., and C. Wagner. 1995. Anaerobic turnover of oxalate in forest soils. *Gen. Meet. Am. Soc. Microbiol.*, N-149, p. 358.
20. Seifritz, C., J. Fröstl, and S. L. Daniel. 1996. Effect of nitrate on oxalate and glyoxylate metabolism by *Clostridium thermoaceticum*. *VAAM Tagung*, PE-008, p. 101.

21. Daniel, S. L., and C. Wagner. 1996. Microbial turnover of oxalate under anaerobic conditions in forest soils. VAAM Tagung, PB-002, p. 75.
22. Seifritz, C., J. Fröstl, and S. Daniel. 1996. Oxalate and glyoxylate metabolism by *Clostridium thermoaceticum*: influence of nitrate on carbon and reductant flow. Gen. Meet. Am. Soc. Microbiol., K-163, p. 563.
23. Daniel, S. L., and C. Wagner. 1998. Anaerobic mechanisms for the turnover of oxalate: studies with forest soils and pure cultures. Ann. Meet. Ill. St. Acad. Sci., Abstr. 74, p. 55.
24. Seifritz, C., J. Fröstl, and S. L. Daniel. 1998. Glycolate as a new metabolic substrate for the acetogenic bacterium *Moorella thermoacetica*. Gen. Meet. Am. Soc. Microbiol., K-21, p. 330.
25. Seifritz, C., J. Fröstl, and S. L. Daniel. 1999. Nitrite as an energy-conserving electron sink for the acetogenic bacterium *Moorella thermoacetica*. Gen. Meet. Am. Soc. Microbiol., I-37, p. 380.
26. Scheffer, A., K. Doerner, N. Furumo, and S.L. Daniel. 2001. The search for cholesterol-lowering bacteria in the mammalian gastrointestinal tract. Ann. Meet. Ill. St. Acad. Sci., Abstr. 141, p. 92.
27. Fairfield, K., N. Ludolph, L.S. Kull, G.L. Hartman, and S.L. Daniel. 2001. Oxalate biosynthesis by fungal plant pathogens. 12th Annual Student Research Conference (Charleston, IL), p. 38.
28. Fairfield, K., L.S. Kull, G.L. Hartman, and S.L. Daniel. 2001. Oxalate biosynthesis by fungal plant pathogens. Ann. Meet. Ill. St. Acad. Sci., Abstr. 142, p. 92.
29. Fairfield, K., L. Kull, G. Hartman, and S. Daniel. 2001. Novel strategies for assessing the aggressiveness of *Sclerotinia sclerotiorum*, cause of sclerotinia stem rot of soybeans. Gen Meet. Am. Soc. Microbiol, N-131, p. 509.
30. Marousek, S.B., G. Pollard, and S.L. Daniel. 2002. Nodulation of common and endangered legumes by symbiotic nitrogen-fixing bacteria present in Illinois Prairie soils. Ann. Meet. Ill. St. Acad. Sci. 130, p. 92.
31. Brueck, C., M. Lehtinen, M. Flanagan, P. Bade, and S.L. Daniel. 2002. Microbial degradation of oxalate, glyoxylate and glycolate in the human gut. Ann. Meet. Ill. St. Acad. Sci. 131, p. 92.
32. Schweighart, J., T. Hatinen, N.C. Furumo, and S.L. Daniel. 2002. Impact of carbon source on growth and oxalate biosynthesis by *Sclerotinia sclerotiorum*, the causative agent of sclerotinia stem rot of soybean. Ann. Meet. Ill. St. Acad. Sci. 134, p. 93.
33. Goradia, L., S.L. Daniel, and G. Hartman. 2003. Evaluation of round-up ready soybean cultivars for resistance to *Xanthomonas axonopodis* pv. *glycines*. Ann. Meet. Ill. St. Acad. Sci. 159, p. 63.
34. Runyon, C., and S.L. Daniel. 2003. Enrichment of anaerobic glyoxylate-degrading bacteria from the gastrointestinal tract of humans. Ann. Meet. Ill. St. Acad. Sci. 164, p. 65.
35. Daniel, S.L., C. Runyon, J. Williams, M. Flanagan, C. Brueck, and M. Lehtinen. 2003. Degradation of glyoxylate and glycolate by human gastrointestinal microbes. Gen. Meet. Am. Soc. Microbiol., N32, p. 439.
36. Furumo, N.C., and S.L. Daniel. 2003. Growth and oxalate biosynthesis by *Sclerotinia sclerotiorum*, the causative agent of sclerotinia stem rot of soybean. Gen. Meet. Am. Soc. Microbiol., N-281, p. 448.
37. Culbertson, B.J., J.R. Krone, K.A. Beer, N.C. Furumo, and S.L. Daniel. 2004. Regulation of growth and oxalate synthesis by *Sclerotinia sclerotiorum*. Ann. Meet. Ill. St. Acad. Sci. 137, p. 53.
38. Goradia, L., G. Hartman, and S.L. Daniel. 2004. Pathogenicity of *Xanthomonas axonopodis* pv. *glycines*, causative agent of bacterial pustule in soybeans. Gen. Meet. Am. Soc. Microbiol., N-318.
39. Furumo, N.C., A. Eurell, S.L. Daniel, and K. Doerner. 2004. Microbial metabolism of deoxycholate in the mammalian gastrointestinal tract. Gen. Meet. Am. Soc. Microbiol., N-320.
40. Furumo, N.C., S.L. Daniel, and B.J. Culbertson. 2004. Biochemistry and physiology of oxalate biosynthesis by *Sclerotinia sclerotiorum*, a fungal plant pathogen. ACS National Meeting, BIOL 167.
41. Cox, R., and S. Daniel. 2005. Oxalate consumption by commercial probiotics. Congr. Gastrointest. Func., Abstr. 8.
42. Talarico, T.N., T. Millis, and S.L. Daniel. 2005. Microbial degradation of oxalate in the gastrointestinal tracts of cats and dogs. Congr. Gastrointest. Funct., Abstract #26.
43. Doyle, K., V. Norman, S. Daniel, and A. Fritz. 2006. Concentrations and types of bacteria present in the pupae and adults of the Caribbean fruit fly *Anastrepha suspense*. Ann. Meet. Ill. St. Acad. Sci. 76, pp. 52-53.
44. Daniel, S., and R. Cox. 2006. Oxalate consumption by probiotic microorganisms. Gen Meet Am Soc Microbiol I48.
45. Daniel, S.L., and H.L. Drake. 2007. From *Clostridium thermoaceticum* to *Moorella thermoacetica*, by viewing the old, we learn the new. Incredible Anaerobes: From Physiology to Genomics to Fuels. Abst. #2.
46. Baluka, A., and S. Daniel. 2007. Oxalate metabolism by *Lactobacillus* and *Bifidobacterium*. Ann. Meet. Ill. St. Acad. Sci. 45, p. 41.
47. Inboden, A.M., and S.L. Daniel. 2008. Resolving the nutritional requirements of *Clostridium scindens*, a bile acid-metabolizing gut bacterium. Ann. Meet. Ill. St. Acad. Sci. 60, p. 44.

48. Baluka, A.E.C., and S.L. Daniel. 2008. PCR-based detection of genes responsible for oxalate detoxification in probiotic microorganisms. Ann. Meet. III. St. Acad. Sci. 17, p. 26.
49. Baluka, A., and S. Daniel. 2008. Oxalate-consuming activities of probiotic microorganisms. Gen. Meet. Am. Soc. Microbiol., I-019.
50. Baluka, A.E.C., and S.L. Daniel. 2008. Evaluation of the oxalate-consuming activities of probiotic bacteria. 2nd ASM Conference on Beneficial Microbes, 5A, p. 19.
51. Baluka, A.E.C., and S.L. Daniel. 2009. Oxalate degradation by *Lactobacillus acidophilus* and other probiotic bacteria. Congr. Gastrointest. Funct., Abstract #6.
52. Schuette, A., and S. Daniel. 2009. Anaerobic growth potentials of *Xenorhabdus nematophila*. Ann. Meet. III. St. Acad. Sci. 57, p. 29.
53. Huckaba, J., and S.L. Daniel. 2009. Comparing the nutritional requirements of the bile acid-metabolizing gut bacteria *Clostridium hylemonae* and *Clostridium hiranonis*. Ann. Meet. III. St. Acad. Sci. 63, p. 32.
54. Penn, C., and S.L. Daniel. 2009. Degradation of salicylate, an important plant-signaling molecule, by the fungal pathogen *Sclerotinia sclerotiorum*. Ann. Meet. III. St. Acad. Sci. 62, p. 31.
55. Huckaba, J., S.L. Daniel. 2010. Determining the nutritional requirements of the bile acid-metabolizing gut bacteria *Clostridium hylemonae* and *Clostridium hiranonis*. Ann. Meet. III. St. Acad. Sci. 14, p. 18.
56. Penn, C., and S.L. Daniel. 2010. Degradation of salicylate, an important plant-signaling molecule, by the fungal pathogen *Sclerotinia sclerotiorum*. Gen. Meet. Am. Soc. Microbiol., X-1941.
57. Huckaba, J., and S.L. Daniel. 2010. Determining the nutritional requirements of the bile acid-metabolizing gut bacterium *Clostridium hylemonae*. Gen. Meet. Am. Soc. Microbiol., K-279.
58. Paul, O., and S.L. Daniel. 2011. Vitamin requirements of the bile acid-dehydroxylating intestinal bacterium *Clostridium scindens*. Ann. Meet. III. St. Acad. Sci. 94, p. 64.
59. Daniel, S.L., and J.M. Lucas. 2011. Phenotypic microarray analysis of the thermophilic acetogen *Moorella thermoacetica* ATCC 39073. Extremophiles: Key to Bioenergy, p. 40.
60. Daniel, S.L., and J. Huckaba. 2011. Determining the nutritional requirements of the bile acid-metabolizing gut bacteria *Clostridium hylemonae*. Congr. Gastrointest. Funct.
61. Paul, O., and S.L. Daniel. 2011. Resolving the vitamin requirements of the bile acid-dehydroxylating intestinal bacterium *Clostridium scindens*. Congr. Gastrointest. Funct.
62. Janezic, K.J, E.W. Hendricks, A.N. Theisen, B. Ferry, M.E. Roberts, S. Murphy, S.M. Scott, B.A. Janiga, T. Johnson, K. Hung, and S.L. Daniel. 2012. Phenotypic and genotypic characterization of *Escherichia coli* isolated from surface waters in Illinois and Missouri. Ann. Meet. III. St. Acad. Sci. 58, p. 49.
63. Daniel, S.L. 2012. Impact of raw syngas on the growth of the thermophilic acetogen *Moorella thermoacetica* ATCC 39073. C1-Gordon Research Conference.
64. Scheiman, D., and S.L. Daniel. 2013. Anaerobic oxalate-degrading bacteria in avian cecal contents. Congr. Gastrointest. Funct., p. 32, Abstract #21.
65. Daniel, S.L. 2013. Impact of raw syngas on the growth of the thermophilic acetogen *Moorella thermoacetica* ATCC 39073. Gen. Meet. Am. Soc. Microbiol, Abstract O-2007.
66. Dickey, A., A. Heumann, K. Shaw, K. Broge, A. Allen, A. Shah, A. Maulding, C. Albers, K. Toy, L. Ford, T. Mettler, T. Tortorici, S.L. Daniel, and K. Hung. 2014. Comparison of genotypic and phenotypic characteristics of *Escherichia coli* from untreated surface waters. Ann. Meet. III. St. Acad. Sci. 43, p. 35.
67. Ohseki, K., and S. L. Daniel. 2014. Utilization of prebiotic carbohydrates by the human gut acetogen *Blautia producta*: You are what your acetogens eat! C₁-Gordon Research Conference.
68. Allen, A. L., E.L. Springer, and S.L. Daniel. 2015. Fermentation potentials of the bile acid-dehydroxylating anaerobe *Clostridium scindens* ATCC 35704. Congr. Gastrointest. Funct., p. 35.
69. Shaw, K., and S.L. Daniel. 2015. Diversity of the beneficial bacterium *Oxalobacter formigenes* isolated from the human gut. Ann. Meet. III. St. Acad. Sci. 73, p. 37.
70. Pushala, L., K. Duckett, A. Heumann, L. LeBaugh, H. Schmidt, B. Arnold, K. Shaw, T. Ray, D. Fite, K. Broge, M. Hladilek, K. Hung, and S.L. Daniel. 2015. Diversity of *Escherichia coli* in rural Illinois creek waters: potential impact on public health? Ann. Meet. III. St. Acad. Sci. 71, p. 36.
71. Schmid, R., K. Smith, A. Lam, R. Shrestha, K. Jones, D. Baltzell, B. Smith, J. Smith, S. Shrestha, Q. Jordan, M. Almalki, F. Karim, K. Hung, and S.L. Daniel. 2016. Commensal or pathogen? *Escherichia coli* diversity in a rural creek in Illinois. Ann. Meet. III. St. Acad. Sci. 77, p. 47.

72. Sallam, L., J. Ridlon, G. Doden, H. Doden, and S.L. Daniel. 2017. Conversion of 12-ketolithocholate to deoxycholate by *Clostridium scindens*, *Clostridium hylemonae*, and *Clostridium hiranonis*, major bile acid-metabolizing anaerobes in the human gut. Congr. Gastrointest. Funct., Abstr. 58, p. 48.
73. Shrestha, R., and S. Daniel. 2017. Resolution of the amino acid requirements for *Clostridium scindens* ATCC 35704, a major bile acid-dehydroxylating anaerobe in the human gut. Congr. Gastrointest. Funct., Abstr. 41, p. 39.
74. Danek, T.S., P. A. Batinich, C. Carter, K.F. Ballom, C.T. Fiegenbaum, J. Gant, K.R. Gochanour, M.L. Grant, S. Gurung, C.P. Kalinka, M. Kantner, K.D. Miller, S. Pandey, N. Pareek, L.A. Sallam, S.T. Stutzman, M.A. Thomas, F. Karim, K. Hung, S. L. Daniel. 2017. Intraspecies diversity of *E. coli* from urban and rural creeks in Coles County, IL. Indiana Branch of the American Society for Microbiology.
75. Sallam, L.A., J.M. Ridlon, L. Ly, G. Doden, H. Doden, and S.L. Daniel. 2018. Impact of human gut anaerobes on bile acid metabolism. Indiana Branch of the American Society for Microbiology, Abstr. 4, p. 4.
76. Pareek, N., and S.L. Daniel. 2018. Evaluation of intra-species diversity of *Oxalobacter formigenes* strains using pulsed-field gel electrophoresis. Indiana Branch of the American Society for Microbiology, Abstr. 14, p. 14.
77. Sallam, L.A., H. Doden, G. Doden, L. Ly, J.M. Ridlon, and S.L. Daniel. 2018. Biotransformation of bile acids by human gut bacteria. Ann. Meet. Ill. St. Acad. Sci. Poster 81.
78. Pareek, N., and S.L. Daniel. 2018. One-step differentiation of group 1 and group 2 strains of *Oxalobacter formigenes* by multiplex polymerase chain reaction. Ann. Meet. Ill. St. Acad. Sci. Poster 83.
79. Ridlon J.M., H. Doden, L.A. Sallam, L. Ly, G.V. Pereira, S. Devendran, S.M. Mythen, A. Volland, G. Doden, C.L. Wright, C. Fields, A.G. Hernandez, I. Cann, S.L. Daniel, V. McCracken, P. Kashyap, G. Kakiyama, J.M.P. Alves. 2018. Bile acid 7 α -dehydroxylating gut clostridia: from comparative genomics to in vivo metatranscriptomics and metabolomics to gene discovery. Digestive Diseases Week.
80. Pareek, N., and S.L. Daniel. 2019. Evaluation of intra-species diversity of *Oxalobacter formigenes* strains using pulsed-field gel electrophoresis. Congr. Gastrointest. Funct., Abstr. 47, p. 39.
81. Pareek, N., and S.L. Daniel. 2019. Evaluation of intra-species diversity of *Oxalobacter formigenes* strains using pulsed-field gel electrophoresis (PFGE) and multiplex PCR. OHF International Hyperoxaluria Workshop.

Teaching Experience

<i>South Dakota State University:</i>	General Microbiology Laboratory
<i>Iowa State University:</i>	General Microbiology Laboratory
<i>University of Mississippi:</i>	Bacteria and Infectious Disease, Advanced Microbial Physiology, Aquatic Microbiology, Microbial Diversity, Applied Microbiology
<i>Universität Bayreuth:</i>	Mikrobiologisches Praktikum, Methoden der Mikrobiologie (team taught), Mikrobiologisches Großpraktikum II
<i>Western Kentucky University:</i>	General Biology
<i>Eastern Illinois University:</i>	Bacteriology, General Microbiology, Practical Microbiology, Environmental Microbiology, Graduate Seminar, Pathogenic Microbiology, Independent Study, Undergraduate Research, Teaching in the Laboratory, Graduate Thesis, Graduate Research, Honors Research, Honors Thesis, Honors Seminar, Cell Physiology

Additional Professional Activities

Ph.D. Dissertation Examination Committee Member

Johannes Bertsch, Dept. Molecular Microbiology and Bioenergetics, Goethe Universität, Frankfurt, DE, 2016

M.S. Thesis Students Advised and Directed

Manish Parekh, The University of Mississippi, 1990

Corinna Seifritz, Universität Bayreuth, 1995

Lopa Goradia, Eastern Illinois University, 2001- 2003 (completed M.S. thesis, May 2003)

Rachel Mossman, Eastern Illinois University, Spring 2001

Colleen Hull, Eastern Illinois University, Fall 2002, Spring 2003
Nicole Talarico, Eastern Illinois University, 2003-2005
Alexandra Baluka, Eastern Illinois University, 2006-2008 (completed M.S. thesis, May 2008)
Oindrila Paul, Eastern Illinois University, 2010-2013 (completed M.S. thesis, September 2013)
Karen Shaw, Eastern Illinois University, 2013-2016 (completed M.S. thesis, June 2016)
Rachana Shrestha, Eastern Illinois University, 2015-2018 (completed M.S. thesis, February 2018)
Lina Sallam, Eastern Illinois University, 2017-2018 (completed M.S. thesis, May 2018)
Nivedita Pareek, Eastern Illinois University, 2017-2019 (completed M.S. thesis, April 2018)

Supervision of Graduate (M.S.) Research (other than thesis)

Dan Scheiman, Independent Study, Eastern Illinois University, 2000
Praveena Bade, Summer Research Project Assistant, Eastern Illinois University, 2000
Rachel Mossman, Independent Study, Eastern Illinois University, Fall 2002, Spring 2003

M.S. Thesis and Non-Thesis Committee Member

Erastus Gatebe, Chemistry Department, Eastern Illinois University, 2003-2004
Brandon Jutras, Department of Biological Sciences, Eastern Illinois University, 2006-2008
Kris Yoon, Department of Biological Sciences, Eastern Illinois University, 2008 (non-thesis)
Jordan Angle, Department of Biological Sciences, Eastern Illinois University, 2009
Wadud Khan, Department of Biological Sciences, Eastern Illinois University, 2009-2011
Blake Ferry, Department of Biological Sciences, Eastern Illinois University, 2011-2012
Yudong Qu, Department of Biological Sciences, Eastern Illinois University, 2013
Christine Albers, Department of Biological Sciences, Eastern Illinois University, 2013
Anit Shah, Department of Biological Sciences, Eastern Illinois University, 2014-2015
Seun Ikugbayigbe, Department of Biological Sciences, Eastern Illinois University, 2015

Supervision of M.S. Graduate Teaching Assistants

Sheryl Lenhart, Eastern Illinois University, Fall 1998
Dan Scheiman, Eastern Illinois University, Spring 1999, Fall 1999
Rita Klein, Eastern Illinois University, Fall 1999, Spring 2000, Fall 2000
Lopa Goradia, Eastern Illinois University, Spring 2001, Fall 2001, Fall 2002
Rachel Mossman, Eastern Illinois University, Spring 2002
Nate Badgett, Eastern Illinois University, Spring 2003
Sean Jones, Eastern Illinois University, Fall 2003
Kerry Klocinski, Eastern Illinois University, Fall 2003, Spring 2004
Nicole Talarico, Eastern Illinois University, Fall 2004, Spring 2005
Ike Nwosu, Eastern Illinois University, Spring 2005
Vince Hustad, Eastern Illinois University, Fall 2006
Preeti Dhakal, Eastern Illinois University, Spring 2007
Kris Yoon, Eastern Illinois University, Fall 2006, Fall 2007
Alexandra Baluka, Eastern Illinois University, Spring 2007, Fall 2007, Spring 2008
Kathryn Hale, Eastern Illinois University, Fall 2008
Jessica Christman, Eastern Illinois University, Spring 2009
Jordan Angle, Eastern Illinois University, Spring 2009
Wadud Khan, Eastern Illinois University, Fall 2009, Spring 2010, Spring 2011
Oindrila Paul, Eastern Illinois University, Fall 2010, Spring 2011, Fall 2011, Spring 2012
Erin Tuegel, Eastern Illinois University, Fall 2013
Anit Shah, Eastern Illinois University, Fall 2013, Spring 2014, Fall 2014, Spring 2015
Fazlul Karim, Eastern Illinois University, Fall 2015, Spring 2016, Fall 2016, Spring 2017

Supervision of Undergraduate Teaching Assistants

Trisha McAfee, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Spring 2000
David Burke, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Fall 2002
Sharon Hickman, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Spring 2007
Ashley Inboden, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Spring 2008, Fall 2008
Cory Penn, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Fall 2008
Kyle Broge, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Fall 2014
Avery Allen, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Spring 2015
Amy Lam, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Fall 2015, Spring 2016
Kenji Ohseki, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Spring 2016
Paige Batinich, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Fall 2016
Austin Parrish, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Spring 2017
Christopher Kalinka, BIO 4400 Teaching in the Laboratory, Eastern Illinois University, Spring 2017

Supervision of Undergraduate Research and Independent Study

Shane Jenkins, Independent Study, Eastern Illinois University, Summer 1998
Heather Kolacek, Independent Study, Eastern Illinois University, Spring 1999
Sarah Peterson, Independent Study, Eastern Illinois University, Spring 1999
Ashley Scheffer, Independent Study, Eastern Illinois University, Spring 2000
Kris Fairfield, Undergraduate Research, Eastern Illinois University, Fall 2000
Ashley Scheffer, Undergraduate Research, Eastern Illinois University, Fall 2000
Greg Pollard, Independent Study, Eastern Illinois University, Fall 2000
Michael Lehtinen, Independent Study, Eastern Illinois University, Fall 2000
Sarah Marousek, Independent Study, Eastern Illinois University, Spring 2001
Greg Pollard, Undergraduate Research, Eastern Illinois University, Spring 2001
Sarah Marousek, Undergraduate Research, Eastern Illinois University, Summer 2001
Michael Lehtinen, Undergraduate Research, Eastern Illinois University, Summer 2001
Chad Brueck, Independent Study, Eastern Illinois University, Fall 2001
Tuomas Hatinen, Independent Study, Eastern Illinois University, Fall 2001
Angela Swisher, Independent Study, Eastern Illinois University, Spring 2002
Michael Flanagan, Independent Study, Eastern Illinois University, Spring 2002
Colleen Hull, Undergraduate Research, Eastern Illinois University, Spring 2002
Cecil Runyon, Independent Study, Eastern Illinois University, Summer 2002
John Williams, NSF-REU program, Eastern Illinois University, Summer 2002
Cecil Runyon, Undergraduate Research, Eastern Illinois University, Fall 2002, Spring 2003
Jaymie Krone, Independent Study, Eastern Illinois University, Spring 2003, Fall 2003
Mandy Maurer, Independent Study, Eastern Illinois University, Fall 2003
Jaymie Krone, Undergraduate Research, Eastern Illinois University, Fall 2003
Tom Millis, Independent Study, Eastern Illinois University, Spring 2004
Ryan Cox, Independent Study, Eastern Illinois University, Fall 2004
Lauren Carr, Undergraduate Research, Eastern Illinois University, Spring 2007
Jonathan Rueter, Undergraduate Research, Eastern Illinois University, Spring 2007
Ashley Inboden, Independent Study, Eastern Illinois University, Fall 2007, Spring 2008
Cory Penn, Honors Research, Eastern Illinois University, Spring 2008, Fall 2008, Spring 2009
Alexandra Schuette, Independent Study, Eastern Illinois University, Fall 2008, Spring 2009
J'nai Huckaba, Independent Study, Eastern Illinois University, Spring 2009
J'nai Huckaba, Undergraduate Research, Eastern Illinois University, Fall 2009
Kaylin Smith, Independent Study, Eastern Illinois University, Fall 2010
Tracy York, Independent Study, Eastern Illinois University, Fall 2010
Kerstin Allen, Independent Study, Eastern Illinois University, Fall 2010
Josh Lucas, Undergraduate Research, Eastern Illinois University, Summer 2010, Fall 2010

Kris Janezic, Undergraduate Research, Eastern Illinois University, Spring 2012
Alexa Wroblewski, Independent Study, Eastern Illinois University, Spring 2012
Ansu Durgut, Undergraduate Research, Eastern Illinois University, Summer 2012
Tara Uselding, Undergraduate Research, Eastern Illinois University, Summer 2012
Alexa Wroblewski, Undergraduate Research, Eastern Illinois University, Summer 2012
Lisa Ford, Undergraduate Research, Eastern Illinois University, Summer 2013
Allison Rice, Undergraduate Research, Eastern Illinois University, Fall 2013, Spring 2014
Kyle Broge, Undergraduate Research, Eastern Illinois University, Spring 2014
Ashley Dickey, Independent Study, Eastern Illinois University, Spring 2014
Shelby Jackson, Independent Study, Eastern Illinois University, Summer 2014
Kenji Ohseki, Undergraduate Research, Eastern Illinois University, Summer 2014 and 2015, Fall 2015
Katelyn Duckett, Independent Study, Eastern Illinois University, Fall 2014
Avery Allen, Independent Study, Eastern Illinois University, Fall 2014
Katelyn Duckett, Undergraduate Research, Eastern Illinois University, Spring 2015
Avery Allen, Undergraduate Research, Eastern Illinois University, Spring 2015
Emily Springer, Undergraduate Research, Eastern Illinois University, Spring 2015, Summer 2015
Lindsay Pushala, Undergraduate Research, Eastern Illinois University, Spring 2015
Amy Lam, Undergraduate Research, Eastern Illinois University, Spring 2016, Summer 2016
Jade Mallaney, Undergraduate Research, Eastern Illinois University, Spring 2016, Summer 2016
Riley Schmid, Undergraduate Research, Eastern Illinois University, Spring 2016
Kaleigh Smith, Undergraduate Research, Eastern Illinois University, Spring 2016
Jade Mallaney, Independent Study, Eastern Illinois University, Fall 2016
Brittany Smith, Undergraduate Research, Eastern Illinois University, Fall 2016
Angelena Tornabene, Undergraduate Research, Eastern Illinois University, Fall 2016
Matt Kantner, Undergraduate Research, Eastern Illinois University, Spring 2017
Paige Batinich, Undergraduate Research, Eastern Illinois University, Spring 2017
Chris Kalinka, Undergraduate Research, Eastern Illinois University, Fall 2016, Spring 2017
Caleb Carter, Undergraduate Research, Eastern Illinois University, Spring 2017
Tyler Danek, Undergraduate Research, Eastern Illinois University, Spring 2017

M.S. Graduate Student-Generated Research Proposals and Awards – Funded

- Lopa Goradia: Pathogenicity of *Xanthomonas axonopodis* pv. *glycines*, the Causative Agent of Bacterial Pustule in Soybeans (*Glycine max* (L.) Merrill), Tiffany Botany Graduate Research Award, Eastern Illinois University, Spring 2002 (\$300.00)
- Nicole Talarico: Microbial Degradation of Oxalate in the Gut of Dogs and Cats, Williams Travel Award, Eastern Illinois University, Spring 2005 (\$500.00)
- Intestinal Colonization of Dogs with the Beneficial Bacterium *Oxalobacter formigenes*: The First Step Towards the Prevention of Urinary Tract Stones, Graduate School Research/Creative Activity Award, Eastern Illinois University, Spring 2005 (\$1,000.00)
- Alexandra Baluka: Evaluation of the Oxalate-Consuming Activities of Probiotic Microorganisms, Graduate School Research Award, Eastern Illinois University, Fall 2006 (\$1,000.00)
- Evaluation of the Oxalate-Consuming Activities of Probiotic Microorganisms, Sigma Xi Grant-in-Aid of Research, Spring 2007 (\$400.00)
- Evaluation of the Oxalate-Consuming Activities of Probiotic Microorganisms, Graduate School Research Award, Eastern Illinois University, Fall 2007 (\$1,000.00)
- Oxalate-Consuming Activities of Probiotic Microorganisms, Williams Travel Award, Eastern Illinois University, Spring 2008 (\$500.00)

Evaluation of the Oxalate-Consuming Activities of Probiotic Microorganisms, 2009 Master's Thesis Award, Award of Excellence, Graduate School, Eastern Illinois University, Spring 2009 (\$200.00)

Oindrila Paul: Metabolic Potentials of the Bile Acid-Dehydroxylating Gut Bacterium *Clostridium scindens*, Graduate School Research/Creative Activity Award, Eastern Illinois University, Fall 2010 (\$750.00)

Vitamin Requirements of the Bile Acid-Dehydroxylating Intestinal Bacterium *Clostridium scindens*, Williams Travel Award, Eastern Illinois University, Spring 2011 (\$350.00)

Evaluation of the Metabolic Potentials of the Intestinal Bacterium *Clostridium scindens*, College of Sciences' Graduate Student Investigator (GSI) Award, Eastern Illinois University, Spring 2011 (\$150.00)

Karen Shaw: Evaluation of the Phenotypic and Genotypic Diversity of *Oxalobacter formigenes*, A Beneficial Gut Bacterium in Humans, College of Sciences Graduate Research Grant, Eastern Illinois University, Fall 2014 (\$400.00)

Rachana Shrestha: Amino Acid Utilization by *Clostridium scindens*, A Major Bile Acid-Dehydroxylating Anaerobe in the Human Gut, Williams Travel Award, Eastern Illinois University, Spring 2017 (\$100.00)

Nivedita Pareek: Evaluation of Intra-Species Diversity of *Oxalobacter formigenes* Strains Using Pulsed-Field Gel Electrophoresis (PFGE) and Multiplex Polymerase Chain Reaction (PCR), Graduate School Research/Creative Activity Award, Eastern Illinois University, Fall 2017 (\$265.00)

Evaluation of Intra-Species Diversity of *Oxalobacter formigenes* Strains Using Pulsed-Field Gel Electrophoresis (PFGE) and Multiplex Polymerase Chain Reaction (PCR), Williams Travel Award, Eastern Illinois University, Spring 2018 (\$100.00)

Evaluation of Intra-Species Diversity of *Oxalobacter formigenes* Strains Using Pulsed-Field Gel Electrophoresis (PFGE) and Multiplex Polymerase Chain Reaction (PCR), College of Sciences' Graduate Student Investigator (GSI) Award, Eastern Illinois University, Spring 2018 (\$500.00)

Lina Sallam: Biotransformation of Bile Acids by Human Gut Bacteria, Williams Travel Award, Eastern Illinois University, Spring 2018 (\$100.00)

Conversion of 12-ketolithocholate to Deoxycholate by *Clostridium scindens*, *Clostridium hylemonae*, and *Clostridium hiranonis*, Major Bile Acid-Metabolizing Anaerobes in the Human Gut, Graduate School Research/Creative Activity Award and Class of 2018 Distinguished Graduate Student in Biological Sciences, Eastern Illinois University, Spring 2018 (\$300.00)

Conversion of 12-ketolithocholate to Deoxycholate by *Clostridium scindens*, *Clostridium hylemonae*, and *Clostridium hiranonis*, Major Bile Acid-Metabolizing Anaerobes in the Human Gut, College of Sciences' Graduate Student Investigator (GSI) Award, Eastern Illinois University, Spring 2018 (\$500.00)

Undergraduate Student-Generated Research Proposals and Presentations - Funded

- Kris Fairfield: The Role of Oxalate in the Infection of Soybeans by Fungal Plant Pathogens, Honors Program Award, Eastern Illinois University, Fall 2000 (\$500.00)
- Ashley Scheffer: Detection of Polydeoxycholate-Forming Bacteria in the Intestines, Honors Program Award, Eastern Illinois University, Spring 2000 (\$500.00)
- Isolation of Polydeoxycholate-Converting Bacteria from the Intestinal Tract, Honors Program Award, Eastern Illinois University, Summer 2000 (\$1,500.00)
- Michael Lehtinen: Reducing Kidney Stones in Humans: The Impact of Glycolate- and Glyoxylate-Consuming Gut Microbes, Sigma Xi Grant-in-Aid of Research, Spring 2001 (\$600.00)
- Reducing Kidney Stones in Humans: The Impact of Glycolate- and Glyoxylate-Consuming Gut Microbes, Illinois State Academy of Science Research Award, Spring 2001 (\$200.00)
- John Williams: Distribution of Anaerobic Oxalate-, Glyoxylate-, and Glycolate-Degrading Bacteria in the Gastrointestinal Tracts of Native and Exotic Animal Species, NSF-REU program at Eastern Illinois University, Summer 2002 (\$800.00)
- Jaymie Krone: Impact of Plant-Derived Phenolic Compounds on Growth and Toxin Production by *Sclerotinia sclerotiorum*, Honors Program, Eastern Illinois University, Spring 2003 (\$500.00)
- Lauren Carr: Impact of Gender and Developmental Stage on Microbial Concentrations in the Pupae of the Caribbean Fruit Fly, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2007 (\$200.00)
- Jonathan Rueter: Assessment of the Oxalate Degradation Capabilities of *Bifidobacterium longum* and *Bifidobacterium breve* Along with the Detection of the *oxc* Gene in these Beneficial Gut Bacteria, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2007 (\$200.00)
- Ashley Inboden: Metabolic Profiling of the Gut Bacterium *Clostridium scindens*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2007 (\$200.00)
- Cory Penn: Impact of Metabolic Inhibitors on Growth, Culture pH, and Oxalate Synthesis by *Sclerotinia sclerotiorum*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2008 (\$200.00)
- Metabolism of the Plant-Signaling Molecules Salicylate and Jasmonate by *Sclerotinia sclerotiorum*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2008 (\$200.00)
- Degradation of Salicylate, An Important Plant-Signaling Molecule, by the Fungal Pathogen *Sclerotinia sclerotiorum*, College of Sciences' Scholars in Undergraduate Research, Eastern Illinois University, Spring 2009 (\$100.00)
- Alex Schuette: Effects of Prebiotics on Oxalate Consumption by the Probiotic Bacterium, *Lactobacillus acidophilus*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2008 (\$250.00)

- J'nai Huckaba: Comparing the Nutritional Requirements of the Bile Acid-Metabolizing Gut Bacteria *Clostridium hylemonae* and *Clostridium hiranonis*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2009 (\$250.00)
- Comparing the Nutritional Requirements of the Bile Acid-Metabolizing Gut Bacteria *Clostridium hylemonae* and *Clostridium hiranonis*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2009 (\$250.00)
- Determining the Nutritional Requirements of the Bile Acid-Metabolizing Gut Bacterium *Clostridium hylemonae*. College of Sciences' Scholars in Undergraduate Research, Eastern Illinois University, Spring 2010 (\$100.00)
- Kaylin Smith: Impact of Prebiotics on Growth and Bile Acid Dehydroxylation by *Clostridium hylemonae*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2010 (\$224.00)
- Impact of Prebiotics on Growth and Bile Acid Dehydroxylation by *Clostridium hylemonae*, Honors College, Eastern Illinois University, Fall 2010 (\$750.00)
- Tracy York: Standardization of Methodologies for the Routine Detection, Isolation, and Characterization of *Oxalobacter formigenes* from Human Fecal Samples, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2010 (\$250.00)
- Kerstin Allen: Glycerol Conversion to Fuels and Specialty Chemicals By Acetogenic Bacteria, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2010 (\$250.00)
- Josh Lucas: Mechanism of Xylose Utilization by *Moorella thermoacetica*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2010 (\$245.00)
- Kris Janezic: Detection of Virulence Genes in *E. coli* Isolated from Surface Waters in Illinois and Missouri, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2012 (\$242.00)
- Tara Uselding: Isolation and Identification of Bacteria on Bluebird Eggs in Illinois, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Summer 2012 (\$245.00)
- Alexa Wroblewski: Impact of Artificial Sugar Sucralose (Splenda) on Bile Acid-Metabolizing Gut Bacteria, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Summer 2012 (\$250.00)
- Allison Rice: Fermentation of High Fructose Corn Syrup (HFCS) by *Clostridium scindens*, A Bile Acid-Dehydroxylating Gut Bacterium, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2013 (\$250.00)
- Ashley Dickey: Detection of Virulence Genes in *E. coli* Isolated from Surface Waters in Illinois and Missouri, College of Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2014 (\$375.00)
- Detection of Virulence Genes in *E. coli* Isolated from Surface Waters in Illinois and Missouri, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2014 (\$250.00)

- Kyle Broge: Detection of Virulence Genes in *E. coli* Isolated from Surface Waters in Illinois and Missouri, Biological Sciences Undergraduate Research Grant, Spring 2014, Eastern Illinois (\$250.00)
- Avery Allen: Sugar Utilization by *Clostridium scindens*, A Resident of the Human Gut Microbiome, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2014 (\$125.00)
- Sugar Utilization by *Clostridium scindens*, A Resident of the Human Gut Microbiome, Honors College, Eastern Illinois University, Fall 2014 (\$750.00)
- Fermentation potentials of the bile acid-dehydroxylating anaerobe *Clostridium scindens* ATCC 35704, College of Sciences Undergraduate Research Travel Grant, Eastern Illinois University, Spring 2015 (\$400.00)
- Fermentation Potentials of the Bile Acid-Dehydroxylating Anaerobe *Clostridium scindens* ATCC 35704, College of Sciences' Scholars in Undergraduate Research at Eastern (SURE) Award, Eastern Illinois University, Spring 2015 (\$300.00)
- Katelyn Duckett: Isolation of *Oxalobacter formigenes* from the Gut of Laboratory Mice, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Fall 2014 (\$125.00)
- Isolation of *Oxalobacter formigenes* from the Gut of Laboratory Mice, Honors College, Eastern Illinois University, Fall 2014 (\$750.00)
- Emily Springer: Fermentation potentials of the bile acid-dehydroxylating anaerobe *Clostridium scindens* ATCC 35704, College of Sciences Undergraduate Research Travel Grant, Eastern Illinois University, Spring 2015 (\$400.00)
- Fermentation Potentials of the Bile Acid-Dehydroxylating Anaerobe *Clostridium scindens* ATCC 35704, College of Sciences Summer Undergraduate Research Grant, Eastern Illinois University, Spring 2015 (\$1,500.00)
- Amy Lam: Pathogenic Diversity of *Escherichia coli* in Rural Illinois Creek Waters: Potential Impact on Public Health? Honors Program Award, Eastern Illinois University, Summer 2016 (\$1,500.00)
- Chris Kalinka: Metabolic End Products of *Clostridium scindens* ATCC 35704 When Grown Under a Variety of Culture Conditions and Exposed to a Variety of Substrates, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2017 (\$227.00)
- Matt Kantner: Of Mice, Men, and *Oxalobacter formigenes*, Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2017 (\$200.00)
- Paige Batinich,
Tyler Danek,
Caleb Carter: Determination of Pathogenicity of *E. coli* Isolated from Surface Waters in Coles County Biological Sciences Undergraduate Research Grant, Eastern Illinois University, Spring 2017 (\$310.00)

Workshops Attended

Faculty Development, Faculty Mentoring Circles Connection Program, Workshop and Training for Mentor/Mentees, October 11, 2007, Eastern Illinois University

Faculty Development, Faculty Mentoring Circles Connection Program, Launch-Up/Link-Up, September 24, 2008 and September 9, 2009, Eastern Illinois University

RNA-Seq Data Analysis Workshop, June 8-11, 2013, HPCBio Roy J. Carver Biotechnology Center and Institute for Genomic Biology, University of Illinois at Urbana-Champaign

Internal Research Proposals and Activities – Funded

Anaerobic Mechanisms for the Turnover of Oxalate in the Rhizosphere of Forest Soils, Council on Faculty Research - Faculty Research Grant, Eastern Illinois University, 1997-1998 (\$2,527.00, Principal Investigator)

Faculty Development Mini-Grant, Eastern Illinois University, Spring 1998 (\$250.00)

Incorporation of Molecular Microbiological Techniques into the Biological Sciences Undergraduate Curriculum, Redden Fund for the Improvement of Undergraduate Education, Eastern Illinois University, Summer 1998 (\$500.00)

Energy-Conserving Reduction of Nitrite by the Acetogen *Moorella thermoacetica*, College of Sciences' Small Grant Award, Eastern Illinois University, Fall 1998 (\$300.00)

Support for the visit of Dr. Charles W. Kaspar from the Department of Food Microbiology and Toxicology in the Food Research Institute at the University of Wisconsin, College of Sciences' Visiting Scholar Award, Eastern Illinois University, Fall 1998 (\$400.00)

Faculty Development Mini-Grant, Eastern Illinois University, Spring 1999 (\$250.00)

Effects of Some Common Food Additives on the Growth and Activities of the Oxalate-Degrading Bacterium *Oxalobacter formigenes*, College of Sciences' Seed Grant Award, Eastern Illinois University, Spring 1999 (\$1,000.00)

Integration of Molecular Microbial Ecology into the Biological Sciences Curriculum, Redden Fund for the Improvement of Undergraduate Education, Eastern Illinois University, Summer 1999 (\$1,500.00)

Detection and Isolation of Polydeoxycholate-Forming Bacteria from the Mammalian Gastrointestinal Tract, Council on Faculty Research - Summer Research Award, 1999 (\$1,250.00, Co-Principal Investigator)

Support for the visit of Dr. Jeff O. Dawson from the Department of Natural Resources and Environmental Sciences at the University of Illinois at Urbana-Champaign, College of Sciences' Visiting Scholar Award, Eastern Illinois University, Fall 1999 (\$265.00)

Detection and Isolation of Polydeoxycholate-Forming Bacteria from the Mammalian Gastrointestinal Tract, College of Sciences' Small Grant Award, Eastern Illinois University, Fall 1999 (\$100.00)

Summer Graduate Research Assistant Award to support a 1.5-month stipend for a summer graduate research assistant to work on the detection of glyoxylate- and glycolate-consuming anaerobic bacteria in the gut of mammals, The Graduate School, Eastern Illinois University, Summer 2000 (\$900.00)

MicroscopeCam: Bridging the Virtual Divide in the Microbiology Laboratory, Redden Fund for the Improvement of Undergraduate Education, Eastern Illinois University, Summer 2000 (\$935.00)

Novel Strategies of Assessing the Aggressiveness of *Sclerotinia sclerotiorum*, College of Sciences' Small Grant Award, Eastern Illinois University, Fall 2000 (\$300.00)

Oxalate Biosynthesis by the Fungal Soybean Pathogen *Sclerotinia sclerotiorum*, Council on Faculty Research - Faculty Research Grant, Eastern Illinois University, 2000-2001 (\$2,431.95, Principal Investigator)

Support for the visit of Dr. Glen Hartman from the Department of Crop Sciences and the National Soybean Research Center at the University of Illinois at Urbana-Champaign, College of Sciences' Visiting Scholar Award, Eastern Illinois University, Spring 2001 (\$265.00)

Faculty Development Mini-Grant, Eastern Illinois University, Spring 2001 (\$250.00)

Mechanisms of Oxalate Biosynthesis Among Fungal Soybean Pathogens, College of Sciences' Seed Grant Award, Eastern Illinois University, Spring 2001 (\$1,000.00, - split award with Co-Principal Investigator Dr. Norbert Furumo, Chemistry Department, Eastern Illinois University)

Mechanisms of Oxalate Synthesis by *Sclerotinia sclerotiorum*, College of Sciences' Special Projects, Eastern Illinois University, Summer 2001 (0.5 months of summer salary)

Purification and Characterization of an Oxalate-Synthesizing Enzyme from White Mold (*Sclerotinia sclerotiorum*), a fungal soybean pathogen, Council on Faculty Research - Summer Research Award, Eastern Illinois University, Summer 2001 (\$4,000.00 - Co-Principal Investigator Dr. Norbert Furumo, Chemistry Department, Eastern Illinois University)

The Glyoxylate Cycle in Fungal Plant Pathogens: Its Role in Virulence and the Disease Process, Council on Faculty Research-Faculty Research Grant, Eastern Illinois University, 2001-2002 (\$3,395.00, Co-PI with Dr. Norbert Furumo, Chemistry Department, Eastern Illinois University)

Reducing Kidney Stones in Humans: The Impact of Glycolate- and Glyoxylate-Consuming Gut Microbes, College of Sciences' Small Grant Award, Eastern Illinois University, Fall 2001 (\$500.00)

Enhancing the Sciences through Bioinstrumentation, Colleges of Sciences' Academic Enhancement Grant Award, Eastern Illinois University, Spring 2002 (\$10,045.00, Principal Investigator)

Regulation of Glyoxylate Cycle Enzymes in Fungal Soybean Pathogens, College of Sciences' Seed Grant Award, Eastern Illinois University, Spring 2002 (\$500.00 - split award with Co-Principal Investigator Dr. Norbert Furumo, Chemistry Department, Eastern Illinois University)

Reducing Urinary Tract Stones in Humans: Impact of Glycolate- and Glyoxylate-Consuming Gut Microbes College of Sciences' Special Projects, Eastern Illinois University, Summer 2002 (0.5 months of salary)

Training Today's Undergraduates and Tomorrow's Scientists with State-of-the-Art Graphing and Printing Technology, Redden Fund for the Improvement of Undergraduate Education, Eastern Illinois University, Summer 2002 (\$1,365.00)

Participation in the NSF-REU Program on "The Ecology, Behavior and Physiology of Exotic Species" at Eastern Illinois University, Summer 2002 (salary compensation, \$3,000.00)

Impact of Phytoanticipins and Phytoalexins on Growth and Toxin Production by *Sclerotinia sclerotiorum*, a Fungal Plant Pathogen, College of Sciences' Seed Grant, Eastern Illinois University, Spring 2003 (\$1,000.00, split with Co-Principal Investigator Dr. Norbert Furumo, Chemistry Department, Eastern Illinois University)

Molecular Identification of Oxalate-Degrading Bacteria in the Gastrointestinal Tracts of Dogs and Cats Using a Polymerase Chain Reaction-Based Detection System, College of Sciences' Seed Grant Program, Eastern Illinois University, Spring 2004 (\$1,000.00)

Microbial Constituents of the Reproductive Tract and the Digestive Tract of the Caribbean Fruit Fly, *Anastrepha suspensa*, Council on Faculty Research-Research Grant, Eastern Illinois University, 2003-2004 (\$5,651.00, Co-Principal Investigator Dr. Ann H. Fritz, Biological Sciences, Eastern Illinois University)

Molecular Detection of Novel Microbes by Culture-Independent, DNA Analyses in the Tephritid Fly, Council on Faculty Research - Faculty Research Grant, Eastern Illinois University, 2005-2006 (\$3,879.47, Co-Principal Investigator Dr. Ann Fritz, Biological Sciences, Eastern Illinois University)

Commercial Probiotics: Can These Dietary Supplements Prevent Kidney Stones in Humans?, College of Sciences' Seed Grant Program, Eastern Illinois University, Spring 2007 (\$1,000.00)

Faculty Development Mini-Grant, Eastern Illinois University, Fall 2007 (\$400.00)

Oxalate Metabolism by Commercial Probiotic Bacteria, Council on Faculty Research – Faculty Research Grant, Eastern Illinois University, 2007-2008 (\$2,550.00)

Mechanism and Regulation of Oxalate Biosynthesis by the Fungus *Sclerotinia sclerotiorum*, Proposal Initiative Fund, Eastern Illinois University, 2007-2008 (\$6,695.00)

COS Research/Creative Activity/Special Project, College of Sciences, Eastern Illinois University, 3 CU reassignment for research during the 2008-2009 academic year

Degradation of Salicylate, An Important Plant-Signaling Molecule, by the Fungal Pathogen *Sclerotinia sclerotiorum*, College of Sciences' Seed Grant Program, Eastern Illinois University, Spring 2009 (\$1,000.00)

Faculty Development Mini-Grant, Eastern Illinois University, Fall 2009 (\$600.00)

Conversion of Syngas Derived from Waste-to-Energy Gasification to Biofuels and Specialty Chemicals by Acetogenic Bacteria, College of Sciences' Seed Grant, Eastern Illinois University, Spring 2011 (\$1,000.00)

Imaging and Graphing Technologies for Biologists, Redden Fund for the Improvement of Undergraduate Education, Eastern Illinois University, Summer 2011 (\$1,500.00)

Development of a Genetic System for *Moorella thermoacetica* and Its Use in the Production of Sustainable Biofuels and Added-Value Feedstock Chemicals from Syngas and Cellulosic Biomass, College of Sciences' Seed Grant Program, Eastern Illinois University, Spring 2012 (\$1,000.00)

Support for the visit of Dr. David S. Goldfarb. Dr. Goldfarb is a Professor of Medicine and Physiology and Neuroscience at NYU School of Medicine. College of Sciences' Visiting Scholar Award, Eastern Illinois University, Fall 2012 (\$900.00)

SoYoGo, A Yogurt Developed to Prevent and Treat Kidney Stones, Faculty Development Partnership Grant to support research collaboration with Dr. David Goldfarb at NYU School of Medicine, Fall 2012 (\$750.00)

Support for a research presentation at the 113th general meeting of the American Society for Microbiology, Denver, Colorado. Faculty Development Support Grant, Fall 2012 (\$500.00)

Digital Microscopy for the Microbiology Laboratory: Strike a Pose, Prokaryote! Redden Fund for the Improvement of Undergraduate Education, Eastern Illinois University, 2013 (\$1,187.00)

Isolation of *Oxalobacter formigenes*, a beneficial gut bacterium that degrades the dietary toxin oxalate, from the cecal contents of house mice (*Mus musculus*), Council on Faculty Research – Faculty Research Grant, Eastern Illinois University, 2013-2014 (\$3,387.00)

Descriptive analysis of gut microbiome alterations in hyperoxaluric patients, College of Sciences' Seed Grant Program, Eastern Illinois University, Spring 2014 (\$1,000.00)

Isolation of *Oxalobacter formigenes*, a beneficial gut bacterium that degrades the dietary toxin oxalate, from the cecal contents of house mice, Council on Faculty Research - Research Award, Summer 2014 (\$4,500.00)

Support for the visit of Dr. Volker Müller and Dr. Beate Averhoff. Drs. Müller and Averhoff are Professors of Microbiology at the Institut für Molekulare Biowissenschaften, Goethe-Universität Frankfurt, Germany. College of Sciences' Visiting Scholar Award, Eastern Illinois University, Fall 2014 (\$1,000.00)

myImageAnalysis Software: An Essential Tool in the Molecular Toolbox, Redden Fund for the Improvement of Undergraduate Education, Eastern Illinois University, 2014 (\$1,500.00)

Development of Thermophilic Acetogens as Microbial Catalysts for the Bioconversion of Untreated Syngas to Biofuels and Feedstock Chemicals, Faculty Development Partnership Grant, collaboration with Dr. Müller at the Institut für Molekulare Biowissenschaften, Goethe-Universität. Frankfurt, Germany, Fall 2014 (\$750)

Integration of Proteomics into the Biological Sciences Curriculum, Redden Fund for the Improvement of Undergraduate Education, Eastern Illinois University, 2016 (\$1,500.00)

External Research Proposals and Activities – Funded

Properties of Symbiotic Nitrogen-Fixing Bacteria Isolated from Common and Endangered Legumes, Wildlife Preservation Fund, Division of Natural Heritage, Illinois Department of Natural Resources, July 1, 2000 to June 30, 2001 (\$1,000.00, Principal Investigator)

Novel Strategies for Assessing the Aggressiveness of *Sclerotinia sclerotiorum*, the Causative Agent of Sclerotinia Stem Rot of Soybeans, Illinois Soybean Program Operating Board, September 1, 2002 to August 31, 2003 (\$15,918.00, Principal Investigator with Dr. Norbert Furumo, Chemistry Department, Eastern Illinois University as Co-Principal Investigator)

Bacterial Pustule: Resistance in Current Soybean Cultivars, Illinois Soybean Association, January 1, 2006 to December 31, 2006 (\$22,134, Co-Principal Investigator with Drs. Glen Hartman [Principal Investigator] and Curt Hill [Co-Principal Investigator], Dept. Crop Sciences, University of Illinois at Urbana-Champaign)

Bacterial Pustule: Resistance in Current Soybean Cultivars, Illinois Soybean Association, January 1, 2007 to December 31, 2007 (\$22,140, Co-Principal Investigator with Drs. Glen Hartman [Principal Investigator] and Curt Hill [Co-Principal Investigator], Dept. Crop Sciences, University of Illinois at Urbana-Champaign)

Descriptive and Functional Analyses of Gut Microbiome Alterations in Hyperoxaluria, Pilot Projects for Rare Kidney Stone Research, Rare Kidney Stone Consortium [U54DK083908], July 1, 2013 to June 30, 2014. (\$79,500, Co-Principal Investigator with Drs. Nazzal Lama [Principal Investigator] and Dr. David Goldfarb [Co-Principal Investigator], NYU Medical Center, Nephrology Section)

Service: International/National, University, College, Department and Community

- The University of Mississippi
 - Radiation Safety Committee, 1990-1991
- Eastern Illinois University
 - *International/National Level*

Ad Hoc Reviewer, Applied and Environmental Microbiology, 1997-2002
Ad Hoc Reviewer, 9th ed., *Brock Biology of Microorganisms*, Prentice Hall, 1998
American Society for Microbiology's Second Annual Teacher Science Day, 1999
Grant Proposal Reviewer, Kentucky EPSCoR Program, 2002
Grant Proposal Reviewer, Science and Technology Center in Ukraine (STCU), 2007
Grant Proposal Reviewer, National Science Foundation, 2007
Grant Proposal Reviewer, Oxalosis and Hyperoxaluria Foundation, 2008
External tenure review, Indiana University at South Bend, 2009
Ad Hoc Reviewer, *Environmental Microbiology*, *Archives of Microbiology*, *BMC Genomics*, *Plos One*,
Biotechnology for Biofuels, *Microbial Ecology*, *Agricultural Research Journal*, *FEMS Microbial
Ecology*, *Journal of Bacteriology*, *Journal of Water and Health*, *Journal of Applied Microbiology*,
Scientific Reports – Nature, *Biochemical Bioengineering Journal*
Editorial Board, Applied and Environmental Microbiology, 2003-2016

○ *University-Level*

Expanding Your Horizons through Math and Science Conference, 1998, 1999
Health Service Advisory Board, 1998-2004
Council on University Planning and Budget, 1999-2002
Red Carpet Days, 2002
EIU Academic Foundation Days, 2002
Environmental Health and Safety, 2002-2005
EIU Open House, 2002-2005
President, Sigma Xi chapter at Eastern Illinois University, 2004-2005
Resource Person for International Alumni Reunion, 2007
University Judicial Board, 2007-2009
Resource Person - New Faculty Orientation, 2007, 2009, 2010
TRiO SSS Mentor, 2007-2010
Faculty Mentor, Faculty Development, 2007-2010
Secretary, Sigma Xi Chapter, 2007-2012
Member, Planning Committee, House of Delegates, UPI, 2010
Council on Faculty Research, 2009-2012
Member, House of Delegates, UPI, 2010-2015
Resource Person – Admissions Department and EIU Preview Days, 2013-2014
Master of Science in Sustainable Energy Administration Board, 2013-2014
Health Services Advisory Board, Eastern Illinois University, 2014 (alternate), 2015-2017

○ *College-Level*

Medical Professions Committee, College of Sciences, 1998-2007
Scholars in Undergraduate Research Award Committee, Colleges of Sciences, 1999
COS Teacher/Scholar Selection Criteria Committee, College of Sciences, 1999
Medical Professions Web Page, College of Sciences, 2001-2005
Women in Sciences and Math (WISM) Advisory Committee, 2007-2008
Minorities in Science and Math Mentoring, 2007, 2010-2011
Department Personnel Committee, RN-BSN Program, Eastern Illinois University, 2014-2015
Interim Coordinator for Clinical Laboratory Science Program, 2016-2017

○ *Department-Level*

Search Committee (Chair of Dept. Biological Sciences), 1997-1998
Search Committee (Prep Room/Greenhouse Manager), Botany Dept., 1997-1998

Supervisor, Botany Dept. Prep Room Facility, 1997-1998
Web Page Committee, Botany Dept., 1997-1998
By-Laws Committee, Dept. Biological Sciences, 1997-1998
Search Committee (Plant Ecologist), Dept. Biological Sciences, 1999-2000
Web Page Committee, Dept. Biological Sciences, 1998-2003
Curriculum Committee, Dept. Biological Sciences, 2003-2004
Tiffany Fund Committee, Dept. Biological Sciences, 2001-2003, 2011-2012, 2013-2015, 2016-2017
Budget Committee, Dept. Biological Sciences, 1998-2001, 2003-2004
Facilities Committee, Dept. Biological Sciences, 1998-2005, 2009-2011, 2010-2011
Facilities Committee Chair, 2000-2001, 2003-2005
Planning Committee, Dept. Biological Sciences, 2004-2005
Environmental Biology Advisor, Dept. Biological Sciences, 1998-2002
Pre-Nursing Advisor, Pre-Medical Studies, College of Sciences, 1998-2005
Faculty Advisor, Alpha Epsilon Delta (Pre-Medical Honor Society), 1999-2005
Department Personal Committee, Dept. Biological Sciences, 2004-2007, 2011-2015
Department Personnel Committee (Chair), 2006-2007, 2014-2015
Honors Program Committee, Dept. Biological Sciences, 2006-2009, 2010-2013, 2016-2017
Search Committee (Microbial Cell Biologist), Dept. Biological Sciences, 2007-2008
Alumni Committee, Dept. Biological Sciences, 2007-2011
Alumni Committee (Chair), 2010-2011
Ad Hoc Undergraduate Research Awards, Dept. Biological Sciences, 2007-2012, 2016-2017
Ad Hoc Undergraduate Research Awards (Chair), 2009-2010, 2011-2012
Search Committee (Animal/Cell Physiologist), Dept. Biological Sciences, 2009-2010
Search Committee (Sustainable Energy), Dept. Biological Sciences, 2010-2011
Graduate Committee, Biological Sciences, 2014-2015

○ *Community-Level Outreach*

8th Grade Career Conference, Lake Land College, 1999
Spokesperson for East Central Illinois Heart Walk, Mattoon, 2012
WEIU's Being Well Program 401: Kidney Stones (a videotaped interview on YouTube featuring Dr. David Goldfarb and Dr. Steven Daniel on the causes and treatment of kidney stones as well as the latest research findings) (2012)
Active member of the following community service organizations in Beardstown, IL: Kiwanis, Emblem Club #474, and Elks Lodge #1007