

CURRICULUM VITAE

Yi-Qiang Cheng
Department of Biological Sciences
University of Wisconsin-Milwaukee
Milwaukee, WI 53201

Present Position:

Assistant Professor

Academic Training:

B.S. 1989 Huazhong (Central China) Agricultural University, Wuhan, China. Plant Pathology
M.S. 1992 The Graduate School of the Chinese Academy of Sciences, Beijing, China. Microbial Physiology
Ph.D. 1999 Michigan State University, East Lansing, Michigan. Molecular Microbiology

Awards:

Excellent Student Awards, Huazhong (Central China) Agricultural University (1986-1988)
Graduate Fellowships, The Chinese Academy of Sciences (1989-1992)
Academic Travel Fund, The Graduate School of Michigan State University (1998)
Bessey Research Award for outstanding graduate research, Michigan State University (1999)

Professional Experience:

2003-present Assistant Professor, Dept. of Biological Sciences, Univ. of Wisconsin-Milwaukee
2001-2003 Postdoctoral Research Associate, School of Pharmacy, Univ. of Wisconsin-Madison
1999-2001 Postdoctoral Research Associate, Dept. Chemistry, Univ. of California-Davis

Patents:

Shen, B., Cheng, Y.-Q. and Tang, G.-L. 2003. Type I polyketide synthase requiring a discrete acyltransferase for polyketide biosynthesis (US Provisional Patent filed by Wisconsin Alumni Research Foundation; WARF Case No. P03028US).

Shen, B., Cheng, Y.-Q. and Tang, G.-L. 2002. Leinamycin biosynthesis gene cluster and its components and their utilities in engineered biosynthesis (PCT Int. Appl. WO 0277179).

Selected Publications:

Tang*, G.-L., Cheng*, Y.-Q. and Shen, B. 2004. The biosynthetic gene cluster of the antitumor antibiotic leinamycin from *Streptomyces atroolivaceus* S-140 revealing unprecedented architectural complexity for a hybrid polyketide synthase and nonribosomal peptide synthetase. Chem. Biol. 11:33-45.

Cheng*, Y.-Q., Tang*, G.-L. and Shen, B. 2003. Type I polyketide synthase requiring a discrete acyltransferase for polyketide biosynthesis. Proc. Natl. Acad. Sci. USA. 100:3149-3154 (Highlighted by a Commentary).

Cheng, Y.-Q., Tang, G.-L. and Shen, B. 2002. Identification and localization of the antitumor macrolactam leinamycin biosynthesis gene cluster from *Streptomyces atroolivaceus* S-140. J. Bacteriol. 184:7013-7024.

Ahn, J.-H., Cheng, Y.-Q. and Walton, J.D. 2002. A refined physical map of the *TOX2* locus of *Cochliobolus carbonum* required for cyclic peptide biosynthesis. Fungal Genet. Biol. 35:31-38.

Cheng, Y.-Q. and Walton, J.D. 2002. A eukaryotic alanine racemase gene involved in cyclic peptide biosynthesis. J. Biol. Chem. 275:4906-4911.

Cheng, Y.-Q. Ahn, J.-H. and Walton, J.D. 1999. A putative branched-chain-amino acid transaminase gene required for HC-toxin biosynthesis and pathogenicity in *Cochliobolus carbonum*. Microbiology 145:3539-3546.

Cheng, Y.-Q., Le, L.D., Walton, J.D. and Bishop, K.D. 1999. ¹³C labeling indicates that the epoxide-containing amino acid of HC-toxin is synthesized by head-to-tail condensation of acetate. J. Nat. Prod. 62:143-145.

Scott-Craig, J., Cheng, Y.-Q., Cervone, F., de Lorenzo, G., Pitkin, J.W. and Walton, J.D. 1998. Targeted mutants of *Cochliobolus carbonum* lacking the two major extracellular polygalacturonases. Appl. Environ. Microbiol. 64:1497-1503.

Book Chapters:

Du, L., Cheng, Y.-Q., Ingenhorst, G., Tang, G.-L, Huang, Y. and Shen, B. 2003. Hybrid peptide-polyketide natural products: biosynthesis and prospects towards engineering novel molecules. In Genetic Engineering, Principle and methods, Setlow, J.K. ed., vol. 25, pp.227-267. Kluwer Academic.

Walton, J.D., Scott-Craig, J., Cheng, Y.-Q., Tonukari, N.J. and Pedley, K. 2000. Fungal virulence factors: some things are and some things aren't. In Biology of Plant-Microbe Interactions, vol. 2. deWit, P.J.G.M., Bisseling, T. and Stiekema, W.J. ed., Intl. Soc. Mol. Plant-Microbe Interact., St. Paul, MN, pp.175-179.

Walton, J.D., Ahn, J.H., Pitkin, J.W., Cheng, Y.-Q., Nikolskaya, A.N. Ransom, R. and Wagener, S. 1998. Enzymology, molecular genetics, and regulation of biosynthesis of the host-selective toxin HC-toxin. In Molecular Genetics of Host-specific Toxins in Plant Disease, Kohmoto, K. and Yoder, O.C. ed., pp.25-34. Kluwer Academic.

CURRICULUM VITAE

Mary Lynne Perille Collins
Department of Biological Sciences
University of Wisconsin-Milwaukee
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Present Position:

Professor

Academic Training:

B.A. 1971 Emmanuel College, Boston, MA Biology
Ph.D. 1976 Rutgers University, New Brunswick, NJ Microbiology

Awards:

Post-doctoral Fellow, National Institutes of Health NRSA (1976 - 78)
UWM Foundation/Graduate School Research Award (1988)
Graduate School Distinguished Mentor Award (1993)

Professional Experience:

1993-present Professor, Dept. of Biological Sciences, Univ. of Wisconsin-Milwaukee
1986 - 93 Associate Professor, Dept. of Biological Sciences, Univ. of Wisconsin-Milwaukee
1980 - 86 Assistant Professor, Dept. of Biological Sciences, University of Wisconsin-Milwaukee
1978 - 80 Research Assistant Professor, Department of Microbiology, New York University School of Medicine

Patent:

Collins, M. L. P. and Y. Cheng. 2004. Host/vector system for expression of membrane proteins. U.S. patent 6,680,179.

Selected Publications:

Collins, M. L. P., L. A. Buchholz, and C. C. Remsen. 1991. The effect of copper on *Methylomonas albus* BG8. *Appl. Env. Microbiol.* 57: 1261-1264.

Hessner, M. H., P. J. Wejksnora, and M. L. P. Collins. 1991. Construction characterization, and complementation of *Rhodospirillum rubrum puf* region mutants. *J. Bacteriol.* 173: 5712-5722.

Fassell, T. A., L. A. Buchholz, M.L.P. Collins, and C. C. Remsen. 1992. Localization of methanol dehydrogenase in two strains of methylotrophic bacteria detected by immunogold labeling. *Appl. Env. Microbiol.* 58: 2302-2307.

Lee, I. Y. and M.L.P. Collins. 1993. Identification and partial sequence of the *bchA* gene of *Rhodospirillum rubrum*. *Current Microbiol.* 27: 85-90.

Buchholz, L.A., J. V. Klump, M. L. P. Collins, C. A. Brantner, and C. C. Remsen. 1995. Activity of methanotrophic bacteria in Green Bay sediments. *FEMS Microbiology Ecology* 16: 1-8.

- Yuan, H., M. L. P. Collins, and W. E. Antholine. 1997. Low-frequency EPR of the copper in particulate methane monooxygenase from *Methylomicrobium albus* BG8. *J. Amer. Chem. Soc.* 119: 5073-5074.
- Brantner, C. A., L. A. Buchholz, C. L. McSwain, L. L. Newcomb, C. C. Remsen, and M. L. P. Collins. 1997. Intracytoplasmic membrane formation in *Methylomicrobium albus* BG8 is stimulated by copper in the growth medium. *Can. J. Microbiol.* 43: 672-676.
- Yuan, H., W. E. Antholine, and M. L. P. Collins. 1998. Concentration of Cu, EPR-detectable Cu, and formation of cupric-ferrocyanide in membranes with pMMO. *J. Inorganic Biochem.* 72: 179-185.
- Cheng, Y.S., J. L. Halsey, K. A. Fode, C. C. Remsen, and M. L. P. Collins. 1999. Detection of methanotrophs in groundwater by the PCR. *Appl. Environ. Microbiol.* 65: 648-651.
- Yuan, H., M. L. P. Collins, and W. E. Antholine. 1999. Type 2 Cu²⁺ in pMMO from *Methylomicrobium albus* BG8. *Biophys. J.* 76: 2223-2229.
- Brantner, C.A., L. A. Buchholz, C. C. Remsen, and M. L. P. Collins. 2000. Isolation of intracytoplasmic membrane from the methanotrophic bacterium *Methylomicrobium albus* BG8. *Curr. Microbiol.* 40: 132-134.
- Cheng, Y. S., C. A. Brantner, A. Tsapin, and M. L. P. Collins. 2000. Role of the H protein in assembly of the photochemical reaction center and intracytoplasmic membrane in *Rhodospirillum rubrum*. *J. Bacteriol.* 182: 1200-1207.
- Lemos, S., M. L. P. Collins, S. S. Eaton, G. R. Eaton, and W. E. Antholine. 2000. Comparison of EPR-visible Cu²⁺ sites in pMMO from *Methylococcus capsulatus* (Bath) and *Methylomicrobium albus* BG8. *Biophys. J.* 79: 1085-1094.
- Fode-Vaughan, K. A., C. F. Wimpee, C. C. Remsen and M. L. P. Collins. 2001. Detection of bacteria in environmental samples by Direct PCR without DNA extraction. *BioTechniques* 31: 598-607.
- Brantner, C.A., C. C. Remsen, H. A. Owen, L. A. Buchholz, and M. L. P. Collins. 2002. Intracellular localization of the particulate methane monooxygenase and methanol dehydrogenase in *Methylomicrobium albus* BG8. *Arch. Microbiol.* 178: 59-64.
- Lemos, S. S., H. Yuan, M. L. P. Collins, and W. E. Antholine. 2002. Review of multifrequency EPR of copper in particulate methane monooxygenase. *Current Topics in Biophysics.* *Curr. Topics in Biophysics.* 26: 43-48.
- Fode-Vaughan, K. A., J. S. Maki, J.A. Benson, and M. L. P. Collins. 2003. Direct detection of *Escherichia coli* O157:H7. *Lett. Appl. Microbiol.* 37: 239-243.
- Benson, J. A., K. A. Fode-Vaughan, and M. L. P. Collins. 2004. Detection of *Helicobacter pylori* in water by direct PCR. *Lett. Appl. Microbiol.* 39: 221-225.

CURRICULUM VITAE

Uwe Deppenmeier
Department of Biological Sciences
University of Wisconsin-Milwaukee
Milwaukee, WI 53201

Present Position:

Associate Professor

Academic Training:

B.A. 1988 University of Göttingen, Germany, Biology
Ph.D. 1991 University of Göttingen, Germany, Microbiology

Special Honors and Awards:

1999 Habilitation, Microbiology, University of Göttingen, Germany
1993 German National Science Foundation Habilitation Fellowship
1991 German National Science Foundation Postdoctoral Fellowship

Professional Experience:

2003-present Associate Professor, Dept. of Biological Sciences, Univ. of Wisconsin-Milwaukee
2000-2003 Assistant Professor, Dept. of Microbiology, University of Göttingen, Germany
1995-2000 Research Assistant Professor, Dept. of Microbiology, Univ. of Göttingen, Germany
1991-1995 Postdoctoral fellow, Dept. of Microbiology and Molecular Genetics, UCLA

Selected Publications:

Deppenmeier, U. 2004. The membrane-bound electron transport system of *Methanosarcina* species. *J. Bioenerg. Biomembr.* 36: 55-64

Klunker, D., Haas, B., Hirtreiter, A., Figueiredo, L., Naylor, D.J., Pfeifer, G., Muller, V., Deppenmeier, U., Gottschalk, G., Hartl, F.U., Hayer-Hartl, M. 2003. Coexistence of group I and group II chaperonins in the archaeon *Methanosarcina mazei*. *J. Biol. Chem.* 278: 33256-33267.

Deppenmeier, U. Johann, A., Hartsch, T., *et al.* 2002. The genome of *Methanosarcina mazei*: Evidence for lateral gene transfer between Bacteria and Archaea. *J. Mol. Microbiol. Biotechnol.* 4: 453-461.

Deppenmeier, U., Hoffmeister, M., Prust C. 2002. Biochemistry and biotechnological applications of *Gluconobacter* strains. *Appl. Microbiol. Biotechnol.* 60: 233-242.

Deppenmeier U. 2002. Redox-driven proton translocation in methanogenic Archaea. *Cell. Mol. Life Sci.* 59:1-21.

Deppenmeier, U. 2002. The unique biochemistry of methanogenesis. *Prog. Nucl. Acid Res. Mol. Biol.* 71: 223-283.

- Bäumer, S., Lenters, S., Gottschalk, G. and Deppenmeier, U. 2002. Identification and analysis of proton-translocating pyrophosphatases in the methanogenic archaeon *Methanosarcina mazei*. *Archaea* 1: 1-7.
- Deppenmeier, U. 2001. Redox-getriebene Protonentranslokation in methanogenen Archaea. *Biospektrum* 1/2001: 39-40.
- Murakami, E., Deppenmeier, U., Ragsdale, S. W. 2001. Characterization of the intramolecular electron transfer pathway from 2-hydroxyphenazine to the heterodisulfide reductase from *Methanosarcina thermophila*. *J. Biol. Chem.* 276: 2432-2439.
- Schmitz, R. A., Daniel, R., Deppenmeier, U., Gottschalk, G. 2001. The anaerobic way of life. In 'The Prokaryotes'. third edition, B. Balows, H.G. Trüper, M. Dworkin, W. Harder, K.H. Schleifer, (eds.), Springer Verlag, New York
- Bäumer, S., Ide, T., Jacobi, C., Johann, A., Gottschalk, G., Deppenmeier, U. 2000. The F₄₂₀H₂ dehydrogenase from *Methanosarcina mazei* Gö1 is a redox-driven proton pump closely related to NADH dehydrogenases. *J. Biol. Chem.* 275, 17968- 17973.
- Beifuss, U., Tietze, M., Bäumer, S., Deppenmeier, U. 2000. Methanophenazin: Struktur, Synthese und Funktion eines neuartigen Cofaktors aus methanogenen Archaea. *Angew. Chem.* 112, 2583-2585.
- Brüggemann, H., Falinski, F., Deppenmeier, U. 2000. The F₄₂₀H₂:quinone oxidoreductase of *Archaeoglobus fulgidus*: Identification and overproduction of the F₄₂₀H₂-oxidizing subunit. *Eur. J. Biochem.* 267, 5810-5814.
- Brodersen, J., Bäumer, S., Abken, H.-J., Gottschalk, G., Deppenmeier, U. 1999. Inhibition of membrane-bound electron transport of the methanogenic archaeon *Methanosarcina mazei* Gö1 by diphenyleneiodonium. *Eur. J. Biochem.* 259: 218-224
- Brodersen, J., Gottschalk, G., Deppenmeier, U. 1999. Membrane-bound F₄₂₀H₂-dependent heterodisulfide reduction in *Mc. voltae*. *Arch. Microbiol.* 171: 115-121.
- Ide, T., Bäumer, S., Deppenmeier, U. 1999. Energy conservation by the H₂:heterodisulfide oxidoreductase from *Methanosarcina mazei* Gö1: identification of two proton-translocating segments. *J. Bacteriol.* 181: 4076-4080.
- Deppenmeier, U., Lienard, T., Gottschalk, G. 1999. Novel reactions involved in energy conservation by methanogenic archaea. *FEBS Lett.* 457: 291-297.
- Deppenmeier, U. 1999. Methanophenazin, ein neues Coenzym der Methanogenese. *Biospektrum* 1/1999: 40-41.
- Abken, H.-J., Tietze, M., Brodersen, J., Bäumer S., Beifuss, U., Deppenmeier, U. 1998. Isolation and characterization of methanophenazine and the function of phenazines in membrane-bound electron transport of *Methanosarcina mazei* Gö1. *J. Bacteriol.* 180: 2027-2032.
- Bäumer, S., Murakami, E., Brodersen, J. Gottschalk, G., Ragsdale, S. W. & Deppenmeier, U. 1998. The F₄₂₀H₂:heterodisulfide oxidoreductase system from *Methanosarcina* species. *FEBS Lett.* 428: 295-298.

CURRICULUM VITAE

Steven Forst
Department of Biological Sciences
University of Wisconsin-Milwaukee

Present Position:

Associate Professor

Degrees:

Ph.D.	1979-85	N.Y.U. Medical Center	Microbiology
M.S.	1975-76	Rutgers University	Physiology
B.S.	1970-74	Wilkes College	Biology

Awards:

Outstanding Researcher Award at the University of Wisconsin-Milwaukee: 1999
Outstanding Mentor Award at the University of Wisconsin-Milwaukee: 1993
The Shaw Scientist Award:1990
National Institutes of Health National Research Service Award:1986-1989

Professional Experience:

1996-present, Associate Professor, Department of Biological Sciences, University of Wisconsin-Milwaukee, WI

1990-1996, Assistant Professor, Department of Biological Sciences, University of Wisconsin-Milwaukee, WI

1986-1990, Postdoctoral fellow, S.U.N.Y.-Stony Brook, N.Y. and the University of Medicine and Dentistry of New Jersey

Publications (Selected publications from a total of 44):

He, H, Snyder, H and Forst, S . 2004. Unique organization and regulation of the *mrx* fimbrial operon in *Xenorhabdus nematophila*. *Microbiology* 150: 1439-1446

Kim, DJ, Boylan, B., George, N. and Forst, S. 2003. Inactivation of *ompR* promotes precocious swarming and *flhDC* expression in *Xenorhabdus nematophila*. *J. Bacteriol.* 185:5820-5824

Forst, S. and Boylan, B. 2002. Characterization of the pleiotropic phenotype of an *ompR* strain of *Xenorhabdus nematophila*. *Antonie van Leeuwenhoek.* 81: 43-49

Prohinar, P., Forst, S. Reed, D. Mandic-Mulic, I. and Weiss, J. 2002. OmpR-dependent and OmpR-independent responses of *Escherichia coli* to sublethal attack by the neutrophil bactericidal/permeability protein. *Mol Microbiology.* 43: 1493-1504

Forst, S. and Clarke, D. 2002. Bacteria-nematode symbiosis. In Gaugler (ed.), *Entomopathogenic Nematology*. CABI Publishing, Wallingford, UK pp57-78

Delihias, N. and Forst, S. 2001. MicF: An antisense RNA gene involved in response of *Escherichia coli* to global stress factors. *J. Mol Biol,* 313: 1-12.

- Kim, DJ and Forst, S. 2001. Genomic analysis of the histidine kinase family in bacteria and archaea. *Microbiology*. 147: 1197-1212
- Volgyi, A., Fodor, A. and Forst, S. 2000. Inactivation of a novel gene produces a phenotypic variant cell and affects symbiotic behavior in *Xenorhabdus nematophila*. *Appl. Environ. Microbiol.* 66: 1622-1628
- Waukau, J. and Forst, S. 1999. Identification of a conserved sequence involved in transmembrane signal transduction in *E. coli*. *J. Bacteriol.* 181: 5534-5538
- Volgyi, A., Fodor, A., Szentirmai, A. and Forst, S. 1998. Phase variation in *Xenorhabdus nematophilus*. *Appl. Environ. Microbiol.* 64: 1188-1193
- Forst, S. , Dowds, B., Boemare, N. and Stackebrandt, E. 1997. *Xenorhabdus spp. and Photorhabdus spp.* : Bugs that kill bugs. *Ann. Rev. Microbiol.* 51: 47-72
- Forst, S. and Tabatabai, N. 1997. Role of the histidine kinase, EnvZ, in the production of outer membrane proteins in the symbiotic-pathogenic bacterium, *Xenorhabdus nematophilus*. *Appl. Environ. Micro.* 63: 962-968
- Skaphol, K. Waukau, J. and Forst, S. 1997. The role of His-243 in the phosphatase activity of EnvZ in *Escherichia coli*. *J. Bacteriol.* 179: 1413-1416
- Forst, S. and Leisman, G. 1997. Characterization of outer membrane proteins of *Xenorhabdus nematophilus*. *Symbiosis.* 22: 177-190
- Forst, S. and K.Nealson. 1996. Molecular biology of the symbiotic-pathogenic bacteria, *Xenorhabdus spp. and Photorhabdus spp.* *Micro. Rev.* 60: 21-43
- Leonardo, M.R. and Forst, S. 1996. Reexamination of the role of the periplasmic domain of EnvZ in sensing osmolarity signals in *Escherichia coli*. *Mol. Microbiol.* 22: 405-413
- Tabatabai, N. and Forst, S. 1995. Molecular analysis of the signal transduction genes, *ompR* and *envZ*, in the symbiotic bacteria, *Xenorhabdus nematophilus*. *Mol. Microbiol.* 17:643-652.
- Forst, S., Waukau, J. Leisman, G., Exner, M., and Hancock, R.W. 1995. Functional and regulatory analysis of the OmpF-like porin, OpnP, of the symbiotic bacterium, *Xenorhabdus nematophilus*. *Mol. Microbiol.* 18:779-789
- Leisman, G.B., Waukau, J. and Forst, S.A. 1995. Characterization and environmental regulation of outer membrane proteins in *Xenorhabdus nematophilus*. *Appl. and Environ. Microbiol.* 61: 200-204
- Forst, S. and Roberts, D. 1994. Signal transduction by the EnvZ-OmpR phosphotransfer system in bacteria. *Res. in Microbiol.* 145:363-373

CURRICULUM VITAE

Sergei V. Kuchin
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Present Position:

Assistant Professor

Academic Training:

M.S. 1987 Moscow Physics and Engineering Institute, Moscow, Russia Physics
Ph.D. 1992 Institute of Genetics and Selection of Industrial Microorganisms, Moscow,
Russia Molecular Biology

Professional Experience:

2004-present Assistant Professor, Dept. of Biological Sciences, Univ. of
Wisconsin-Milwaukee
1998-2004 Associate Research Scientist, Institute of Cancer Research, Columbia Univ.,
New York, NY
1993-1998 Postdoctoral Research Scientist, Institute of Cancer Research, Columbia
Univ., New York, NY

Selected Publications:

- Kuchin S.V., Neystat M.A., Gerasimenko O.G., Mashko S.V., Benevolensky S.V. 1990. Mutational analysis of the starch utilization system of *Saccharomyces cerevisiae*. Mol. Biol. Mikrobiol. Virusol. 5: 27-29.
- Suntsov N.I., Kuchin S.V., Neystat M.A., Mashko S.V., Benevolensky S.V. 1991. Production of the STA2-encoded glucoamylase in *Saccharomyces cerevisiae* is subject to feed-back control. Yeast 7: 119-125.
- Kuchin S.V., Kartasheva N.N., Benevolensky S.V. 1993. Genes required for the derepression of an extracellular glucoamylase gene, STA2, in the yeast *Saccharomyces*. Yeast 9: 533-541.
- Kartasheva N.N., Kuchin S.V., Benevolensky S.V. 1996. Genetic aspects of carbon catabolite repression of the STA2 glucoamylase gene in *Saccharomyces cerevisiae*. Yeast 12: 1297-1300.
- Kuchin S., Yeghiayan P., Carlson M. 1995. Cyclin-dependent protein kinase and cyclin homologs SSN3 and SSN8 contribute to transcriptional control in yeast. Proc. Natl. Acad. Sci. USA 92: 4006-4010.
- Song W., Treich I., Qian N., Kuchin S., Carlson M. 1996. SSN genes that affect transcriptional repression in *Saccharomyces cerevisiae* encode SIN4, ROX3, and SRB proteins associated with RNA polymerase II. Mol. Cell. Biol. 16: 115-120.
- Kuchin S., Carlson M. 1998. Functional relationships of the Srb10-Srb11 kinase, CTD kinase I and the transcriptional corepressor Ssn6-Tup1. Mol. Cell. Biol. 18: 1163-1171.

Treitel M.A., Kuchin S., Carlson M. 1998. Snf1 protein kinase regulates phosphorylation of the Mig1 repressor in *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 18: 6273-6280.

Kuchin S., Treich I., Carlson M. 2000. A regulatory shortcut between the Snf1 protein kinase and RNA polymerase II holoenzyme. *Proc. Natl. Acad. Sci. USA* 97: 7916-7920.

Vincent O., Townley R., Kuchin S., Carlson M. 2001. Subcellular localization of the Snf1 kinase is regulated by specific beta subunits and a novel glucose signaling mechanism. *Genes Dev.* 15: 1104-1114.

Vyas V.K., Kuchin S., Carlson M. 2001. Interaction of the repressors Nrg1 and Nrg2 with the Snf1 kinase in *Saccharomyces cerevisiae*. *Genetics* 158: 563-572.

Vincent O., Kuchin S., Hong S.P., Townley R., Vyas V.K., Carlson M. 2001. Interaction of the Srb10 kinase with Sip4, a transcriptional activator of gluconeogenic genes in *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 21: 5790-5796.

Kuchin S., Vyas V.K., Carlson M. 2002. Snf1 protein kinase and the repressors Nrg1 and Nrg2 regulate *FLO11* expression, haploid invasive growth, and diploid pseudohyphal differentiation. *Mol. Cell. Biol.* 22: 3994-4000.

Kuchin S., Vyas V.K., Carlson M. 2003. Role of the yeast Snf1 protein kinase in invasive growth. *Biochem. Soc. Trans.* 31, 175-177.

Vyas V.K., Kuchin S., Berkey C., Carlson M. 2003. Snf1 kinases with different beta subunit isoforms play distinct roles in regulating haploid invasive growth. *Mol. Cell. Biol.* 23: 1341-1348.

Kuchin S., Vyas V.K., Kanter E., Hong S.-P., Carlson M. 2003. Std1p (Msn3p) positively regulates the Snf1 kinase in *Saccharomyces cerevisiae*. *Genetics* 163: 507-514.

Kuchin S., Carlson M. 2003. Analysis of transcriptional repression by Mig1 in *Saccharomyces cerevisiae* using a reporter assay. In: *Methods Enzymol.* 371: 604-616.

CURRICULUM VITAE

Mark J. McBride
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Present Position:
Professor

Academic Training:

B.S. 1980 University of Rochester, Rochester, N. Y., Microbiology
Ph.D. 1987 University of Wisconsin, Madison, WI, Bacteriology

Awards:

Graduate School/UWM Foundation Research Award 1998
Shaw Scientist Award 1995
University of Wisconsin Graduate School Research Committee Award 1993

Professional Experience:

2003-present	Professor, Dept. of Biological Sciences, Univ. of Wisconsin-Milwaukee
1998-2003	Associate Professor, Dept. of Biological Sciences, Univ. of Wisconsin-Milwaukee
1992-1998	Assistant Professor, Dept. of Biological Sciences, University of Wisconsin-Milwaukee

Selected Publications:

- McBride, M. J. and J. C. Ensign. 1987. Metabolism of endogenous trehalose by *Streptomyces griseus* spores and by spores and cells of other Actinomycetes. J. Bacteriol. 169:5002-5007.
- McBride, M. J. and J. C. Ensign. 1990. Regulation of trehalose metabolism by *Streptomyces griseus* spores. J. Bacteriol. 172: 3637-3643.
- McBride, M. J., R. A. Weinberg and D. R. Zusman. 1989. "Frizzy" aggregation genes of the gliding bacterium *Myxococcus xanthus* show sequence similarities to the chemotaxis genes of enteric bacteria. Proc. Natl. Acad. Sci. 86:424-428.
- McCleary, W., M. J. McBride and D. R. Zusman. 1990. Developmental sensory transduction in *Myxococcus xanthus* involves methylation and demethylation of FrzCD. J. Bacteriol. 172:4877-4887.
- McBride, M. J., T. Kohler and D. R. Zusman. 1992. Methylation of FrzCD, a methyl accepting taxis protein of *Myxococcus xanthus*, is correlated with factors affecting cell behavior. J. Bacteriol. 174:4246-4257.

- McBride, M. J. and D. R. Zusman. 1993. FrzCD, a methyl accepting taxis protein from *Myxococcus xanthus*, shows modulated methylation during fruiting body formation. *J. Bacteriol.* 175:4936-4940.
- McBride, M. J. and D. R. Zusman. 1996. Behavioral analysis of gliding cells of *Myxococcus xanthus* in response to prey cells of *E. coli*. *FEMS Microbiol. Lett.* 137:227-231.
- McBride, M. J. and M. J. Kempf. 1996. Development of techniques for the genetic manipulation of the gliding bacterium *Cytophaga johnsonae*. *J. Bacteriol.* 178:583-590.
- Lin, D. L. and M. J. McBride. 1996. Development of techniques for the genetic manipulation of the gliding bacteria *Lysobacter enzymogenes* and *Lysobacter brunescens*. *Can. J. Microbiol.* 42:896-902.
- McBride, M. J. and S. A. Baker. 1996. Development of techniques to genetically manipulate members of the genera *Cytophaga*, *Flavobacterium*, *Flexibacter* and *Sporocytophaga*. *Appl. Environ. Microbiol.* 62:3017-3022.
- Agarwal, S., Hunnicutt, D. W., and M. J. McBride. 1997. Cloning and characterization of the *Flavobacterium johnsoniae* (*Cytophaga johnsonae*) gliding motility gene, *gldA*. *Proc. Natl. Acad. Sci.* 94:12139-12144.
- Hunnicutt, D. W. and M. J. McBride. 2000. Cloning and characterization of the *Flavobacterium johnsoniae* gliding motility genes, *gldB* and *gldC*. *J. Bacteriol.* 182:911-918.
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CURRICULUM VITAE

Daâd A. Saffarini
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Department of Biological Sciences
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Milwaukee, WI, 53211

Present position:

Associate Professor

Academic training:

B.S. 1979 University of Jordan, Amman/Jordan
M.S. 1985 University of Wisconsin-Milwaukee
Ph. D. 1988 University of Wisconsin-Milwaukee

Awards:

9/1975-6/1979: Scholarship, Ministry of Education, Amman, Jordan
8/1984-9/1988: Fellowship, AMIDEAST, Washington, D.C.

Professional experience:

2003-present Associate Professor, Dept. of Biological Sciences (UWM)
1998-2003 Assistant Professor, University of Wisconsin-Milwaukee
1995-1998 Assistant Professor, University of Massachusetts at Amherst
1992-1995 Assistant Scientist, Center for Great Lakes Studies, UWM

Selected publications:

Saffarini, D. R. Schultz and A. Beliaev. 2003. Involvement of cyclic AMP (cAMP) and CAMP receptor protein in anaerobic respiration of *Shewanella oneidensis*. J. Bacteriol. 185:3668-3671.

Saffarini, D., S. Blumberman, and K. Mansoorabadi. 2002. Role of menaquinones in Fe(III) reduction by membrane fractions of *Shewanella putrefaciens*. J. Bacteriol. 184:846-848

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Venkateswaran, K., Moser, D.P., Dollhopf, M.E., Lies, D.P., Saffarini, D.A., MacGregor, B.J., Ringelberg, D.B., White, D.C., Nishijima, M., Sano, H., Burghardt, J. Stackebrandt, E. and Nealson, K.H. 1999. Polyphasic taxonomy of the genus *Shewanella* and description of *Shewanella oneidensis* sp. nov. Int. J. Syst. Bacteriol. 49: 705-724.

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Lovley, D., J. Coates, D. Saffarini and D. Lonergan. 1997. Dissimilatory Iron Reduction. In., G. Winkelmann and C. Carrano (Eds), Transition metals in microbial metabolism. pp 187-215.

Nealson, K.H., D. Moser and D. Saffarini. 1995. Anaerobic electron acceptor chemotaxis in *Shewanella putrefaciens*. Appl. Environ. Microbiol. 61:1551-1554.

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Nealson, K., D. Saffarini, D. Moser and M.J. Smith. 1994. A method for monitoring tactic responses of bacteria under anaerobic conditions. J. Microbiological Methods. 20:211-218.

Saffarini, D.A and K.H. Nealson. 1993. Sequence and genetic characterization of *etrA*, an *fnr* analog that regulates anaerobic respiration in *Shewanella putrefaciens* MR-1. J. Bacteriol. 175:7938-7944.

CURRICULUM VITAE

Douglas Allen Steeber
Department of Biological Sciences
University of Wisconsin-Milwaukee
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Present Position:

Assistant Professor

Academic Training:

B.S.	1985	University of Wisconsin, Madison, WI	Bacteriology
M.S.	1990	University of Wisconsin, Madison, WI	Immunology
Ph.D.	1995	University of Wisconsin, Madison, WI	Immunology
Postdoc	1997	Duke University Medical Center, Durham, NC	

Awards and Honors:

Graduated with Distinction, University of Wisconsin (1985)

Professional Experience:

2003-present	Assistant Professor, Department of Biological Sciences, University of Wisconsin-Milwaukee, Milwaukee, WI
1997-2003	Assistant Research Professor, Department of Immunology, Duke University Medical Center, Durham, NC

Academic Service:

4/2002-present	American Heart Association Study Group: Vascular Wall Biology 1, meets biannually
2/2003-present	Block Chair "Cellular Adhesion, Migration and Inflammation", The American Association of Immunologists annual meeting.
2004-2007	Member, local organizing committee for the 8 th World Congress for Microcirculation meeting, August 15-19, 2007, Milwaukee, WI.

Selected Publications (out of 58 total)

Tang, MLK, Hale, LP, Steeber, DA, Tedder, TF. L-selectin is involved in lymphocyte migration to sites of inflammation in the skin: Delayed rejection of allografts in L-selectin-deficient mice. *J. Immunol.* 1997. 158: 5191-5199.

Steeber, DA, Green, NE, Sato, S, Tedder, TF. Humoral immune responses in L-selectin deficient mice. *J. Immunol.* 1996. 157: 4899-4907.

Haribabu, B, Steeber, DA, Ali, H, Richardson, RM, Snyderman, R, Tedder, TF. Chemoattractant receptor-induced phosphorylation of L-selectin. *J. Biol. Chem.* 1997. 272: 13961-13965.

Engel, P, Miller, AS, Sheetz, MP, Tedder, TF. Ligation of L-selectin through conserved regions within the lectin domain activates signal transduction pathways and integrin

function in human, mouse, and rat leukocytes. *J. Immunol.* 1997. 159: 952-963.

*Tang, MLK, *Steeber, DA, Zhang X-Q, Tedder, TF. Intrinsic differences in L-selectin expression levels affect T and B lymphocyte subset-specific recirculation pathways. *J. Immunol.* 1998. 160: 5113-5121. *co-first authorship

Steeber, DA, Campbell, MA, Basit, A, Ley, K, Tedder, TF. Optimal selectin-mediated rolling of leukocytes during inflammation in vivo requires intercellular adhesion molecule-1 expression. *Proc. Natl. Acad. Sci. USA* 1998. 95: 7562-7567.

Steeber, DA, Tang, MLK, Zhang, X-Q, Müller, W, Wagner, N, Tedder, TF. Efficient lymphocyte migration across high endothelial venules of mouse peyer's patches requires overlapping expression of L-selectin and beta 7 integrin. *J. Immunol.* 1998. 161: 6638-6647.

Li, X, Steeber, DA, Tang, MLK, Farrar, MA, Perlmutter, RM, Tedder, TF. Regulation of L-selectin-mediated rolling through receptor dimerization. *J. Exp. Med.* 1998. 188: 1385-1390.

Wagner, N, Löhler, J, Tedder, TF, Rajewsky, K, Müller, W, Steeber, DA. L-selectin and beta 7 integrin synergistically mediate lymphocyte migration to mesenteric lymph nodes. *Eur. J. Immunol.* 1998. 28: 3832-3839.

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Steeber, DA, Tedder, TF. Adhesion molecule cascades direct lymphocyte recirculation and leukocyte migration during inflammation. *Immunol. Res.* 2000. 22: 299-317.

Haribabu, B, Verghese, MW, Steeber, DA, Sellars, DD, Bock, CB, Snyderman, R. Targeted disruption of the leukotriene B₄ receptor in mice reveals its role in inflammation and platelet-activating factor-induced anaphylaxis. *J Exp Med* 2000. 192: 433-438.

Fujimoto, Y, Tu, L, Miller, AS, Bock, C, Fujimoto, M, Doyle, C, Steeber, DA, Tedder, TF. CD83 expression influences CD4⁺ T cell development in the thymus. *Cell* 2002. 108: 755-767.

Tu, L, Poe, JC, Kadono, T, Venturi, GM, Bullard, DC, Tedder, TF, Steeber, DA. A functional role for circulating mouse L-selectin in regulating leukocyte/endothelial cell interactions in vivo. *J. Immunol.* 2002. 169: 2034-2043.

CURRICULUM VITA

Charles F. Wimpee
Department of Biological Sciences
University of Wisconsin – Milwaukee
Milwaukee, WI 53201

Present Position:

Associate Professor

Education:

B.A. 1975 Biology, University of California, Los Angeles
M.S. 1978 Botany, University of Georgia
Ph.D 1984 Biology, University of California, Los Angeles

Professional Experience:

1992-present Associate Professor, Department of Biological Sciences, University of Wisconsin - Milwaukee.
1987-present Affiliate, Center for Great Lakes Studies, University of Wisconsin – Milwaukee
1986-1992 Assistant Professor, Department of Biological Sciences, University of Wisconsin - Milwaukee.
1984-1986 Postdoctoral Research Associate, Biology Department, Brookhaven National Laboratory.

Selected Publications:

Wimpee, C.F., Wrobel, R.L. and Garvin, D.K. 1991. A divergent plastid genome in *Conopholis americana*, an achlorophyllous parasitic plant. *Plant Mol. Biol.* 17: 161-166.

Les, D.H., Garvin, D.K., and Wimpee, C.F. 1991. Molecular Evolutionary history of ancient aquatic angiosperms. *Proc. Nat. Acad. Sci. USA.* 88: 10119-10123.

Wimpee, C.F., Morgan, R. and Wrobel R.L. 1992. An aberrant plastid ribosomal RNA gene cluster in the root parasite *Conopholis americana*. *Plant Mol. Biol.* 18: 275-285.

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Van Ert, L., Wimpee, C.F., and Makemson, J. 1993. Identification of luminous marine bacteria based on sequence analysis of the *luxA* gene. In: *Trends in Microbial Ecology*, R. Guerrero and C. Pedros-Alios, eds.

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- Chase, M. *et al.* 1993. Phylogenetics of seed plants: An analysis of nucleotide sequences from the plastid gene *rbcL*. *Annals of the Missouri Botanical Garden* 80: 528-580.
- Les, D.H., Garvin, D.K., and Wimpee, C.F. 1993. Phylogenetic studies in the monocot subclass Alismatidae: Evidence for a reappraisal of the aquatic order Najadales. *Molecular Phylogenetics and Evolution* 2: 304-314.
- Makemson, J., N. Fulayfil, W. Landry, L. Van Ert, C. Wimpee, E. Widder, and J. Case. 1997. *Shewanella woodyi* (sp. nov.): A new exclusively respiratory luminous bacterium isolated from the Alboran Sea. *International Journal of Systematic Bacteriology* 47: 1034-1039.
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- Baker, B.J., D.P. Moser, B.J. MacGregor, S. Fishbain, M. Wagner, N.K. Fry, B. Jackson, N. Speolstra, S. Loos, K. Takai, B.S. Lollar, J. Fredrickson, D. Balkwill, T.C. Onstott, C.F. Wimpee, and D.A. Stahl. 2003. Related assemblages of sulphate-reducing bacteria associated with ultradeep gold mines of South Africa and deep basalt aquifers of Washington State. *Environmental Microbiology* 5: 267-277. for Resources and the George Wright Society.
- Budsberg, K, Wimpee, C. and Braddock, J. 2003. Isolation and Identification of *Photobacterium phosphoreum* From an Unexpected Niche: Migrating Salmon. *Applied and Environmental Microbiology* 69: 6938-6942.

CURRICULUM VITAE

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Present Position:

Assistant Professor

Academic Training:

M.S. 1984 National Chung-Hsing University, Taiwan Plant Pathology
Ph.D. 1993 University of California, Riverside, CA Plant Pathology

Awards:

James and Adelaine Wallace Prize for academic excellence (1993).
Graduate Dissertation Award, Gamma Sigma Delta Honor Society of Agriculture (1994).

Professional Experience:

2003-present Assistant Professor, Dept. of Biological Sciences, University of Wisconsin-Milwaukee
1999-2003 Senior Research Associate, Department of Plant Pathology, University of California, Riverside, California

Selected Publications:

- Yang, C.-H., and D. E. Crowley. 2000. Rhizosphere microbial community structure in relation to root location and plant iron nutritional status. *Appl. Environ. Microbiol.* 66:345-351.
- Yang, C.-H., D. E. Crowley, G. H. Anthony, and N. T. Keen. 2000. Strain level identification of *Pseudomonas* using denaturing gradient gel electrophoresis of 16S-23S spacer region rDNA. *J. Gen. Plant Pathology* 66:225-233.
- Ibekwe A. M., S. K. Papiernik, J. Gan, S. R. Yate, D. E. Crowley, and C.-H. Yang. 2001. Microcosm enrichment of 1, 3-Dichloropropene-degrading microbial communities. *J. of Appl. Microbiol.* 91:668-676.
- Ibekwe A. M., S. K. Papiernik, J. Gan, S. R. Yate, C.-H. Yang, and D. E. Crowley. 2001. Impact of fumigants on soil microbial community. *Appl. Environ. Microbiol.* 67:3245-3257.
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- Yang, C.-H., D. E. Crowley, J., Borneman, and N. T. Keen. 2001. Microbial phyllosphere populations are more complex than previously realized. *Proc. Natl. Acad. Sci. USA* 98:3889-3894.

- Ibekwe A. M., A. C. Kennedy, P. S. Frohne, S. K. Papiernik, C.-H. Yang, and D. E. Crowley. 2002. Microbial diversity along a transect of agronomic zones. *FEMS Microbiol. Ecol.* 39:183-191.
- Okinaka, Y., C.-H. Yang, E. Herman, A. Kinney, and N. T. Keen. 2002. The P34 elicitor interacts with a soybean photorespiration enzyme, NADH-dependent hydroxypyruvate reductase. *Mol. Plant-Microbe Interact.* 15:1213-1218.
- Okinaka, Y., C.-H. Yang, N. T. Perna and N. T. Keen. 2002. Microarray profiling of *Erwinia chrysanthemi* 3937 genes that are regulated during plant infection. *Mol. Plant-Microbe Interact.* 15:619-629.
- Alvey, S., C.-H. Yang, A. Buerkert, and D. E. Crowley. 2003. Cereal/legume rotation effects on rhizosphere bacterial community structure in West African soils. *Biol Fert. Soils* 37:73-82.
- Yang, C.-H., M. Gavilanes-Ruiz, Y. Okinaka, R. Vedel, I. Bethuy, M. Boccara, J. W. Chen, N. T. Perna, and N. T. Keen. 2002. *hrp* genes of *Erwinia chrysanthemi* 3937 are important virulence factors. *Mol. Plant-Microbe Interact.* 15:472-480.
- Marschner, P., D. Crowley and C.-H. Yang. 2004. Development of specific rhizosphere bacterial communities in relation to plant species, nutrition and soil type. *Plant and Soil.* 261: 199-208.
- Yang, S., N. T. Perna, D. A. Cooksey, Y. Okinaka, S. E. Lindow, A. M. Ibekwe, N. T. Keen, and C.-H. Yang. 2004. Genome-wide identification of plant-upregulated genes of *Erwinia chrysanthemi* 3937 using a GFP-based IVET leaf array. *Mol. Plant-Microbe Interact.* 17:999-1008.
- Ibekwe, A. M. S. K. Papiernik, C.-H. Yang. 2004. Enrichment and molecular characterization of chloropicrin- and metam-sodium-degrading microbial communities. *Appl. Microbiol. Biotechnol.* (in press).
- Yap, M.-N. C.-H. Yang, J. D. Barak, and A. O. Charkowski. 2004. The *Erwinia chrysanthemi* type III secretion system is required for multicellular behavior. *J. Bacteriol.* (In press).