

## BIOGRAPHICAL SKETCH

### Judy D. Wall

#### Education:

1967 B.Sc. Chemistry, University of North Carolina at Greensboro  
1974 Ph.D. Biochemistry, Duke University

#### Appointments:

1998 – present Joint Professor, Molecular Microbiology & Immunology  
1992 – present Professor, Dept. Biochemistry, Univ. of Missouri-Columbia  
1984 –1992 Assoc. Prof., Dept. Biochemistry, Univ. of Missouri-Columbia  
1984 Visiting Scholar Biological Sciences, Indiana University  
1978 –1984 Assist. Prof., Dept. Biochemistry, Univ. of Missouri-Columbia  
1974 –1978 Postdoctoral Student, Microbiology, Indiana University

#### Recognitions and Awards:

Outstanding Undergraduate Research Mentor, 2008; Candidate for ASM president (unsuccessful), 2007; Tribute to MU Women Award, 2005; Sigma Xi, Graduate Research Mentoring Award, 2004; Board of Governors, American Academy of Microbiology, 2002-2008; Faculty-Alumni Award, MU 1999; Byler Distinguished Professor Award, 1999; American Academy of Microbiology Fellow, 1998; AAAS Fellow, 1995.

#### Selected Publications:

- Clark, M.E., He, Q., He, Z., Alm, E., Huang, K., Hazen, T.C., Arkin, A.P., **Wall, J.D.**, Zhou, J., and Fields, M.W. 2006. Temporal transcriptomic analysis as *Desulfovibrio vulgaris* Hildenborough transitions into stationary phase during electron donor depletion. *Appl Environ Microbiol.* 72:5578-88.
- Pattarkine, M.V., J.J. Tanner, C.A. Bottoms, Y.-H. Lee, and **J.D. Wall.** 2006. *Desulfovibrio desulfuricans* G20 tetraheme cytochrome structure at 1.5 Å and cytochrome interaction with metal complexes. *J. Mol. Biol.* 358(5):1314-1327 .
- Walker, C.B., S.S. Stolyar, N. Pinel, H.C.B. Yen, Z. He, J. Zhou, **J.D. Wall**, and D.A. Stahl. 2006. Recovery of temperate *Desulfovibrio vulgaris* bacteriophage using a novel host strain. *Environ. Microbiol.* 8:1950-1959.
- **Wall, J.D.**, and L.R. Krumholz 2006. Uranium reduction. *Annu Rev Microbiol.* 60:167-185.
- Bender, K.S., H.C.B. Yen, C.L. Hemme, Z. Yang, Z. He, J. Zhou, K.H.Huang, E.J. Alm, T.C. Hazen, A.P. Arkin, and **J.D. Wall.** 2007. Analysis of a ferric uptake regulator (Fur) mutant of *Desulfovibrio vulgaris* Hildenborough. *Appl. Environ. Microbiol.* 73:5389-5400.
- Stolyar S., He, Q., Joachimiak, M.P., He, Z., Yang, Z., Borglin, S. E., Huang, K., Joyner, D., Alm, E., Hazen, T.C. Zhou, J., **Wall, J.D.**, Arkin, A.P. and Stahl, D.A. (2007) Response of *Desulfovibrio vulgaris* to alkaline stress. *J. Bacteriol.*189(24):8944-8952
- Klonowska, A.; Clark, M.E.; Thieman, S.B.; Giles, B.J.; **Wall, J.D.**; Fields, M.W. (2008) Hexavalent chromium reduction in *Desulfovibrio vulgaris* Hildenborough causes transitory inhibition of sulfate reduction and cell growth. *Appl. Microbiol. Biotech.*, 78(6):1007-1016
- **Wall, J.D.**, Arkin, A.P., Balci, N.C. and Rapp-Giles, B. (2009) [Genetics and genomics of sulfate respiration in \*Desulfovibrio\*](#). *Springer-Verlag, Berlin, Heidelberg, Microbial Sulfur Metabolism*(1):1-12
- Elias, D.A, A. Mukhopadhyay, M. Joachimiak, E.C. Drury, A.M. Redding, H.-C.B. Yen, M. Fields, T.C. Hazen, A.P. Arkin, J. Keasling and **J.D. Wall.** (2009) Expression profiling of hypothetical

genes in *Desulfovibrio vulgaris* leads to improved functional annotation. *Nuc. Acids Res.* 37(9):2926-39.

- Walker, C.B., S. Stolyar, D. Chivian, N. Pinel, J.A. Gabster, P.S. Dehal, Z.He, Z.K. Yang, H.C. Yen, J. Zhou, **J.D. Wall**, T.C. Hazen, A.P. Arkin, and D.A. Stahl. (2009) Contribution of mobile genetic elements to *Desulfovibrio vulgaris* genome plasticity. *Environ. Microbiol.* doi:10.1111/j.1462-2920.2009.01946.x

### **Earlier publications relevant to the current research:**

- Rapp-Giles, B. J., L. Casalot, R. S. English, J.A. Ringbauer, Jr., A. Dolla, and **J.D. Wall**. 2000. Cytochrome *c*<sub>3</sub> Mutants of *Desulfovibrio desulfuricans*. *Appl. Environ. Microbiol.* 66:671-677.
- Payne, R. B., L. Casalot, J. A. Ringbauer, Jr., B. Rapp-Giles, and **J.D. Wall**. 2002. Uranium reduction by cytochrome mutants of *Desulfovibrio*. *Appl. Environ. Microbiol.* 68:3129-3132.
- Hemme, C.L., and **J.D. Wall**. 2004. Genomic insights into the gene regulation of *Desulfovibrio vulgaris* Hildenborough. *Omics* 8:1-13.
- Heidelberg, J.F., R. Seshadri, S.A. Haveman, C.L. Hemme, et al. 2004. The genome sequence of the anaerobic, sulfate-reducing bacterium *Desulfovibrio vulgaris* Hildenborough: consequences for its energy metabolism and reductive metal bioremediation. *Nature Biotech.* 22:554 - 559.

### **Professional Organizations:**

- American Society of Microbiology
- American Academy for Microbiology
- American Association for the Advancement of Science
- Society for Industrial Microbiology

### **Recent Professional Activities:**

- Member of Working Group for EU-US Environ. Biotech. Taskforce for developing opportunities for early career scientists since 1996 to present.
- ADVANCE Council, advisory board to MU's NSF ADVANCE grant 2007-2010
- Editor in Chief - Applied and Environmental Microbiology 1995-2001
- Editorial Board – *J. Bacteriol.*, *AEM*, *Environ. Microbiol.*, *Omics*, and *Faculty of 1000*
- Board of Governors, American Academy for Microbiology, 2002-2008
- Co-Chair, AAM Critical Issues Colloquium on Microbial Energy Conversion, 2006, <http://www.asm.org/Academy/index.asp?bid=46674>
- Co-editor of *Bioenergy*, ASM Press, 2008