

## **Roy M. Ventullo**

### **Education**

Ph.D. Microbiology, Univ. of Georgia, 1977.

M.S. Zoology, SUNY Brockport, 1974.

B.S. Biology, SUNY Brockport, 1972.

### **Professional Experience**

2006-present Professor, Burk-Will Chair in Biology, Director of Undergraduate Research, Wartburg College.

1994 - 2006 Associate/Full Professor and Burk-Will Chair in Biology, Wartburg College.

1993 - 1994 Senior Scientist. Environmental Science Dept., The Procter and Gamble Co.

1979 - 1993 Assistant/Associate Professor. Department of Biology, University of Dayton.

1977-1979 Post-doctoral Fellow, University of Calgary, Alberta, Canada.

### **Research Interests**

Research interests include: 1) biofilm microbiology 2) Biodegradation of dyes by white rot fungi; 3) the microbiology of Bromeliads.

### **Select Publications (Total of 35)**

J. A. Bumpus, M. Trax, A. Reisdorph, C. Boyd, D.Gilbert, S. Techau\* and Roy M. Ventullo. 2007. An *in silico* analysis of cytochrome c from *Phanerochaete chrysosporium*: its amino acid sequence and characterization of gene structural elements. *In Silico Biology* 8, 0001.

\*Gsell, T.C., R.M. Ventullo. 2004. Estimation of nutrient limitation of bacterial activity in temperate alkaline sediments from Cedar Bog. *The Ohio J. Science* 104:43-50.

\*Gsell, T.C., W.E. Holben and R.M. Ventullo. 1998. Characterization of the sediment bacterial community in groundwater discharge zones of an alkaline fen: a seasonal study. *Appl. Environ. Microbiol.* 63: 27-34.

\*Lee, D.M, J.B Guckert, R.M. Ventullo, D.H. Davidson and S.E. Belanger. 1997. Stream periphytic bacterial biodegradation acclimation to the anionic surfactant C12-alkyl sulfate at environmentally-relevant concentrations. *Ecotoxicology and Environmental Safety* 36:288-296.

Lee, D.M. and R.M. Ventullo. 1996. Degradation of *Olestra*, a non caloric fat substitute, by microorganisms from activated sludge and other environments. *Biodegradation* 12:1-9.

Shimp, R.J., E.V. Lapsin, and R.M. Ventullo. 1994. Chemical fate and transport in a domestic septic system: Biodegradation of Linear Alkylbenzene sulfonate (LAS) and Nitrilotriacetic acid (NTA). *Environ. Tox. Chem.* 13: 205-212.

### **Select Presentations (Total of 75)**

I have directed research projects for over 300 Undergraduate Students.

Fox, M.\*, E. Wright\*, R. M. Ventullo and J. Bumpus. Decolorization of Erioglaucine and other triphenylmethane dyes by *Phanerochaete chrysosporium*. National Council on Undergraduate Research, Virginia Military Institute and Washington and Lee University, Lexington, VA., April 21-23, 2005.

\*Powless, E.R. and **R.M. Ventullo**. Effect of media composition on decolorization and peroxidase activity of *Phanerochaete chrysosporium*. National Council on Undergraduate Research, UIPUI, Indianapolis, IN. April 14-17, 2004.

\*Seabul, R. and **R.M. Ventullo**. Occurrence of antibiotic resistant *Staphylococcus aureus* in cats and dogs in Northeast Iowa. National Council on Undergraduate Research, UIPUI, Indianapolis, IN. April 14-17, 2004.

\*Vaughan, D. and **R.M. Ventullo**. Initial application of fluorescence *in-situ* hybridization in a fresh water system. Research Poster Session at Wartburg College, April, 2002.

\*Patten, B. and **R.M. Ventullo**. The effect of zinc acetate on colonization of *Streptococcus sanguis* on hydroxyapatite crystals using a microscale method. The R.J. McElroy Student/Faculty Research Symposium administered by the Iowa College Foundation. May 2001.

### **Synergistic Activities**

Co-PI on two NSF-CCLI grants focusing on enhancing experiential learning and research by integrating a) scanning electron microscopy and b) fluorescent and phase microscopy across the curriculum.

### **Author of several recent posters on the pedagogy of research in a Biology curriculum and assessment of student research at a predominantly undergraduate institution.**

Ventullo, R.M., \*C. Knudson and \*W. Yang. 2004. Developing, using and evaluating on-line materials in microbiology. Society for General Microbiology Symposium on e-Learning. Dublin, Ireland, Sept. 3-9.

Main, S.P. and R.M. Ventullo. 2004. Assessment in developmentally phased undergraduate research in Biology at Wartburg College. Crossing Boundries: Innovation in Undergraduate Research. Council on Undergraduate Research Tenth Annual Conference, University of Wisconsin-LaCrosse, WI, June 23-26.

Director and principal investigator on grant entitled "Biodegradability of Ag-based Industrial Lubricants" awarded by the Wallace Technology Transfer Foundation. \$15,000.

1996-present. Principal investigator (with students) on numerous Iowa College Foundation grants with responsibilities for mentoring students, accounting for the funds and writing the final report with the student.

### **Undergraduate research students last 8 years**

Randy Fowler, Gabe Starbeck Miller, Allison Welte, Ellen Engelbrecht, John Welch, Erica Powless, Matt Fox, Erin Wright, Rebecca Seabul, Eric Bantz, T.J. Murphy, Mark Sturm, Doug

Vaughn, Rebecca Lucas, Greta Nielsen, Katie Gelner, Ashley Dierenfeld, Cathy Johnson, Tara Nielsen, Gina Martin, Abbie Stockman, Annette Tibben, Brandon Patten, Kyle Hillsabeck, Leah Sieren, Erin Madsen, Julie Kalkbrenner, Ken Polley, Michael Schwemm, Jennifer Hancock. Carrie Lyle, Jamie Bakkum, Jason Puffet, Jessica Daley, Matt Anderson, Kim Sweet, Kerrie Deppe, Theresa Fruehling.