BIOLOGY SEMINAR SERIES (FALL 2010)

Susan E. Barbaro, Ph.D.*
Department Coordinator and Associate Professor, Department of Biology, Rivier College

September 24, 2010
"Chilling Tales of Life in the Cold: The Role of Aquaporins in Promoting Freeze Tolerance in an Insect"
Dr. Benjamin Philip, Rivier College

Bio: Dr. Philip is the newest faculty member in the Biology Department at Rivier College. Ben received his B.A. and Ph.D. from Miami University located in Oxford, OH and his M. Sc. from Eastern Michigan University, Ypsilanti, MI. Ben's research interests fit into the broad scope of physiological responses of organisms to environmental stress. He is particularly intrigued by how organisms contend with the challenges of winter, especially the rare capacity of some frogs, turtles and insects to tolerate freezing. This remarkable ability requires a suite of physiological adaptations to protect cells against freezing-induced damage, however much remains unknown about the mechanisms underlying this strategy of overwintering. By studying these adaptations, we can not only understand how these organisms have solved the problems associated with freezing, but can also apply our knowledge to the challenges of clinical cryobiology.

October 15, 2010
"Bacteria for Bioenergy: Hydrogen gas production by *Rhodopseudomonas palustris*"
Dr. Jean Huang, Olin College

Bio: Dr. Jean Huang is an assistant professor of Biology at Olin College. Prior to joining Olin faculty, she completed postdoctoral work in the Department of Microbiology at the University of Washington, Seattle. Dr. Huang received a Ph.D. in Biology from the California Institute of Technology, and a B.A. in Biology from Wellesley College. Dr. Huang is recipient of a teaching award from Caltech, and was a U.S. EPA STAR pre-doctoral fellow. She has also studied the microbial world at the Marine Biological laboratory in Woods Hole, MA, at the Microbial Diversity Summer Course. Dr. Huang is enthusiastic about studying bacteria from the environment and also about applying bacterial metabolic capabilities towards solving environmental challenges.

November 5, 2010
Dr. Lisa Delissio, Salem State College

Bio: Dr. Lisa Delissio received her B.S. in Biology from Tufts University, during which time she had her first tropical field ecology experience at Hummingbird Cay in the Bahamas. She then worked as a laboratory technician at M.I.T. where the worm DNA she sequenced contributed to Nobel Prize-winning work on programmed cell death. Unable to spend another summer indoors, she went back to school at Boston University and studied tropical forest ecology in Malaysian Borneo with Richard Primack, one of the world's leading Conservation Biologists, for which she received her Ph.D. Upon graduation, Dr. Delissio took a position at Salem State College, where she is now an Associate Professor. Her current interests include climate change, tropical forests, small island ecology, and science education.

ISSN 1559-9388 (online version), ISSN 1559-9396 (CD-ROM version).

Co-Curricular Seminar Series-Biology and Women Studies

October 21, 2010
Dr. Janet Fishlock

Bio: Dr. Janet Fishlock, a recent Ph.D. graduate from York University's Faculty of Environmental Studies, shares the findings of her doctoral research which examined the important emerging trend of collaboration between social development practitioners and the international mining sector. Drawing on her own experiences in sub-Saharan Africa, and those of fellow practitioners working within the resource extraction sector, she explores how this trend has evolved, the motivation and orientation of those within it, and how it is linked to issues of gender, race, culture and power. As mining companies, consultants, NGO practitioners, government officials, and the women and men living in communities affected by mining, increasingly 'engage', 'partner' and 'collaborate' in social development, who (and what) is empowered? Who benefits, and what is sacrificed? Can practitioners position themselves within this trend in a way that honors their values and commitment to community empowerment, and environmental and social justice? ■

---

* **SUSAN E. BARBARO**, Ph.D., obtained a Bachelor of Science Degree from Concordia University, Montreal, Quebec, and Master of Science and Doctorate from the University of Waterloo, Ontario. Her desire to understand and protect the environment has always played an important role in determining Susan's research interests. In particular, she is interested in the microbial ecology of fresh water and soil ecosystems. Susan has studied and conducted research related to microbial physiology, biological control, and bioremediation. She joined the faculty at Rivier College in 2003. Dr. Barbaro is an Associate Professor and Coordinator of the Department of Biology.