

Speaker Bios/ Credentials

John F. Griffith, Ph.D.

John Griffith is Supervising Microbiologist at the Southern California Coastal Water Research Project Authority. He earned his Ph.D. in Marine Environmental Biology at the University of Southern California, where his dissertation research focused on indicators of fecal contamination in near-shore marine waters. He has participated in large-scale epidemiological studies of Santa Monica Bay and Mission Bay in San Diego, and numerous bacterial source identification studies throughout southern California. Current projects include evaluative testing of microbial source tracking methods; evaluative testing of rapid microbial water quality measurement methods; re-growth of fecal indicator bacteria in storm drains, beach sands and sediments; and epidemiological studies of swimming-related illness at Doheny State Beach and Avalon Bay in California.

D. Jay Grimes, Ph.D.

Dr. D. Jay Grimes was Provost and Vice President for Academic Affairs (2002-2007) and Director of the Gulf Coast Research Laboratory (1997-2007) at The University of Southern Mississippi where he is now a Professor of Coastal Sciences. Grimes is a fellow in the American Academy of Microbiology and in the American Association for the Advancement of Science; he is the past-chair of the American Society for Microbiology's Communications Committee and he is past-president of the U.S. Federation of Culture Collections. Grimes also served as vice chair of the Consortium for Oceanographic Research and Education, chair of the NASULGC Board on Oceans and Atmosphere, and served on the Science Advisory Panel to the U.S. Commission on Ocean Policy. He currently chairs the NOAA National Advisory Panel on Oceans and Human Health, is a Science Advisor to the Joint Ocean Commission Initiative, and is the co-vice chair of the Gordon Research Conference on Oceans and Human Health. Most recently, Grimes has focused his research on the distribution of and human health risks from waterborne pathogens, especially *Vibrio* species. Grimes received his B.A. and M.A. in Biology from Drake University (1966 and 1968) and his Ph.D. in Microbiology from Colorado State University (1971).

Valerie J. Harwood, Ph.D.

Valerie J. Harwood, Ph.D. is an environmental microbiologist and an Associate Professor in the Department of Biology at the University of South Florida, Tampa FL. She earned her Ph.D. in Biomedical Sciences at Old Dominion University and Eastern Virginia Medical School in Norfolk, Virginia, and conducted postdoctoral research at the University of Maryland Center of Marine Biotechnology (COMB) in Baltimore, MD.

One of Dr. Harwood's major areas of expertise is microbial source tracking (MST), which endeavors to determine the source(s) of indicator bacteria such as *E. coli* and enterococci in water. She is a major contributor to the USEPA Guide Document on MST (<http://www.epa.gov/nrmrl/pubs/600r05064/600r05064.pdf>), and is author of a chapter in the Microbial Source Tracking book published by ASM Press. She is also interested in the persistence and ecology of enteric organisms in secondary habitats such as water and sediments. Harwood is the author of over thirty peer-reviewed papers on various areas of environmental micro and microbial ecology, including the efficacy of treatment for reclaimed water, the biochemistry of the hyperthermophile *Pyrococcus furiosus*, on *Vibrio* genetics, physiology, and detection in environmental waters, on phylogeny and antibiotic resistance of *Enterococcus* spp., and on MST. Her lab's research is funded by county, state and federal agencies including the Environmental Protection Commission of Hillsborough County, the Florida Department of Environmental Protection, the US Department of Agriculture and the US Environmental Protection Agency.



Richard A. Haugland, Ph.D.

Dr. Haugland is microbiologist in the Microbiological & Chemical Exposure Assessment Research Division of the National Exposure Research Laboratory. He received a B.S. in Biology at Muskingum College, Ohio and a Ph.D. in Developmental Biology at the Ohio State University. His past research has addressed diverse problems including improvement of nitrogen fixation in crops, biodegradation of hazardous chemicals in the environment, assessment of the microbiological quality of indoor environments, and most recently, homeland defense and water quality monitoring. A common feature of these research activities has been the development and application of technologies based on genetic characterization and detection. Dr. Haugland joined the USEPA in 1991. Since then he has authored or co-authored over 40 publications and has received numerous awards for his work including the EPA bronze and gold medals.

Joanna B. Mott, Ph.D.

Dr. Mott received her B.S. degree in Biological Sciences from Aston University, U.K., a M.S. in Biology from the University of Waterloo, Canada and a Ph.D. in Soil Sciences (Microbiology) from Texas A&M University. She has been a faculty member at Texas A&M University-Corpus Christi for 15 years, and is currently the Chair of the Life Sciences Department. Her research interests are focused on coastal microbiology and human health and her lab has NELAP-Recognized Laboratory Accreditation through the Texas Commission on Environmental Quality, for three microbiology methods (fecal indicators). She has received funding from multiple state and federal agencies for recreational water fecal contamination studies (including source tracking) and recently for *Vibrio vulnificus* studies. Dr. Mott has served on state and regional task forces and advisory boards including the Texas Commission on Environmental Quality and Texas State Soil and Water Conservation Board Joint Technical Task Force on Bacteria TMDLs and the Texas General Land Office Technical Advisory Board for the establishment of the Texas Beach Watch program. Her lab group currently monitors 51 stations in four coastal counties on a weekly/biweekly basis for the program. Dr. Mott is a member of the American Society for Microbiology, International Water Association and Sigma Xi.

Mark Rodgers, Ph.D.

Mark Rodgers is currently serving as the Director of the EPA's Microbiological and Chemical Exposure Assessment Research Division in Cincinnati, Ohio. This division is a part of the Office of Research and Development and has the mission of developing and using innovative scientific tools to measure the occurrence of and human exposure to chemical and microbial contaminants. Mark has a PhD in Microbiology from the University of Rhode Island. He has worked for the EPA since 1991

Jorge W. Santo Domingo, Ph.D.

Dr. Santo Domingo is a research microbiologist with the U.S. EPA in Cincinnati, Ohio. His research work focuses on the use molecular assays to track sources of fecal pollution and to examine the molecular diversity of microbial communities inhabiting drinking water systems. He holds a PhD in Microbiology from Michigan State University and a MS in Biology from the University of Puerto Rico. He has co-authored over 40 peer reviewed manuscripts and 8 book chapters, and recently co-edited two books: Microbial Source Tracking for ASM Press and Safe Management of Shellfish and Harvest Waters for WHO. His professional activities outside of EPA include: Associate Editor for the Journal of Environmental Quality, member of the Molecular Biology Subcommittee of Standard Methods, ad-hoc reviewer for several peer review scientific journals, and proposal reviewer for several federal and state agencies (e.g., NSF, NOAA, USDA, CICEET). His main interests relate to molecular microbial ecology, applied environmental microbiology, microbial water quality, and microbial genomics.



Orin Shanks, Ph.D.

Orin Shanks (Ph.D. 2003, Oregon State University) is a Geneticist with the U.S. Environmental Protection Agency, Office of Research and Development. Research in his laboratory addresses fundamental questions in environmental microbiology and the application of PCR-based methods for the characterization of microbial contamination in water. Projects involve identification of bacterial genes associated with bacteria-host interactions, development of quantitative PCR assays to track the source of fecal contamination, and validation of molecular methods.

Chris Sinigalliano, Ph.D., Environmental Microbiology and Molecular Biology

Dr. Sinigalliano earned an MS in Microbiology from University of South Florida (USF) and later a Ph.D. in Biology from Florida International University (FIU) in Miami. He served as research faculty in environmental microbiology and molecular biology with the Southeast Environmental Research Center (SERC) at FIU from 1998-2006. While at SERC, he served as director of the Environmental Molecular and Cytometric Imaging Facility. Since 2006, Dr. Sinigalliano has been employed by the University of Miami's Cooperative Institute for Marine and Atmospheric Studies to serve as the director of the Environmental Microbiology Program at the NOAA Atlantic Oceanographic and Meteorological Laboratory, located on Virginia Key in Miami, Florida. He is also a member of the NSF Oceans and Human Health Center at the University of Miami. His responsibilities include overseeing the development, adaptation, and deployment of molecular assays, sensors, and methodologies for improved microbial water quality assessment and characterization to improve coastal ecosystem and public health and further the NOAA mission of fostering good stewardship of the coastal and oceanic environment.

Timothy J. Wade, Ph.D., MPH

Dr. Wade is an Epidemiologist with the United States Environmental Protection Agency, in the Office of Research and Development at the Human Studies Division in Chapel Hill, North Carolina. He received a Master of Public Health degree in Epidemiology and Biostatistics in 1998 from the University of California, Berkeley and a Ph.D degree in Epidemiology in 2002, also from the University of California at Berkeley. He joined US EPA ORD in 2003 as post doc and has been in a full time position since 2005. His research focuses on quantifying and measuring the health effects of waterborne contaminants. Dr Wade is currently the principal investigator of the beaches epidemiology studies (the NEEAR Study) and is an adjunct assistant professor of Epidemiology at the University of North Carolina at Chapel Hill.

Shiao Wang, Ph.D.

Shiao Wang is a professor in the Department of Biological Sciences at the University of Southern Mississippi (USM), Hattiesburg, MS. Shiao Wang received his Ph.D. from Louisiana State University. Shiao Wang has been at USM since 1989. He started working in the area of microbial source tracking in 2001, using library dependent methods and now works primarily in the area of molecular detection of pathogens in coastal waters.

Anita Wright, Ph.D.

Dr. Wright is an associate professor of Food Microbiology at the University of Florida. Her laboratory is involved in the development of rapid diagnostics of *Vibrio* species using real-time PCR and molecular typing methods. This research is used to improve monitoring and safety of seafood products and also to address basic questions about the biology of these bacteria in their molluscan hosts.

