

DISTINGUISHED SCHOLAR SEMINAR

Jay Garland, Ph.D.

Division Director, EPA's National Exposure Research Laboratory, Systems Exposure Division



Dr. Garland joined the EPA's Office of Research and Development in 2011 after spending over 20 years working on NASA's efforts to develop closed, bioregenerative life support systems for extended human spaceflight. Since receiving a Ph.D. in Environment Science from the University of Virginia, his research has addressed a range of topics, including methods for microbial community analysis, factors affecting survival of human associated pathogens, and various biological approaches for recycling wastes. His work is committed to the development of sustainable systems using sound ecological principles and innovative technology.

Modeling and Mining the Microbiome to Help Catalyze Adoption of Onsite Non-Potable Water Reuse

SEMINAR ABSTRACT: Increasing pressures on water resources has led to both greater water scarcity and more widespread de facto reuse of wastewater as discharges become an increasing proportion of drinking water supplies. Regenerative design provides a fresh perspective on water-wastewater systems, emphasizing effective treatment to enable planned reuse of water and other resources. Dr. Garland will review on-going collaborations with states and utilities interested in catalyzing the adoption of regenerative systems at the building or district scale. He will emphasize EPA ORD's role in providing information on a risk-based approach to define treatment requirements, examination of the wastewater microbiome for novel surrogates to monitor treatment performance, and comparative life cycle assessment of regenerative approaches.

Tuesday, November 6, 2018

2:30 – 3:30 PM, Reitz Union, room 3315

For additional details, contact Lisette Staal at the UF Water Institute (lstaal@ufl.edu) or Dr. Eric McLamore, Agricultural and Biological Engineering Department (emclamore@ufl.edu)