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Standards for Microbiome Measurements

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Appreciation for the role of microbes in our lives has been growing rapidly, but the measurement science needed to understand and fully exploit microbial systems has developed at a much slower pace than the industries dependent on them demand. NIST is developing standards for microbiome measurements that will enable federal, academic, and industry labs to reliably reproduce and advance each other's results. Microbiome standards will support research investigations and commercial translation of microbiome science by providing measurement assurance tools: standardized protocols, reference materials, validated measurements and critically evaluated reference data.

Biography:

Scott Jackson is currently the leader of the Complex Microbial Systems Group at the National Institute of Standards and Technology (NIST) in Gaithersburg, MD. In this current role, Scott is leading international efforts to improve microbiome and metagenomic measurements by organizing inter-lab studies, developing reference materials and reference methods, and developing in vitro tools that allow us to better understand microbial community resilience and evolution.

Prior to joining NIST in 2014, Scott spent 11 years as a principal investigator with the FDA. At FDA, his research focused on characterizing the global genomic diversity of enteric pathogens, with applications for food safety, bioforensics and public health.

Scott did his PhD research in biochemistry and biophysics at The University of Maryland and Johns Hopkins University, respectfully, where he focused on the evolution of mobile genetic elements using yeast as a model genetic organism.

Scott performed his undergraduate studies in Chemistry and Geology at the University of South Carolina.