

Faculty Excellence Speaker Series



UNRAVELING MICROBIAL DIVERSITY AND FUNCTION USING LARGE-SCALE '-OMICS' APPROACHES

Presented by Dr. Shibu Yooseph

DATE

Wednesday,
April 13, 2016

TIME

2:00 – 3:00 p.m.

LOCATION

Harris Corporation
Engineering Center
(HEC), Room 101

HOSTED BY

Faculty Excellence,
the Office of the
Provost, and the
Department of
Biomedical Sciences

Cultivation-independent approaches combined with DNA sequencing technologies have proven valuable tools in characterizing the incredible microbial diversity that exists in nature. These '-omics' approaches include metagenomics and metatranscriptomics, which respectively allow us to assay the genomic and transcriptomic contents of the constituent microbes in an ecosystem. These approaches help us understand various aspects of microbial diversity, including community structure, biogeographical distributions, microbe-environment interactions, and protein family diversity.

In this talk, Dr. Yooseph will describe his research on microbial communities and ecosystems in several environments, including the global oceans, air and humans, and the computational challenges involved in analyzing the associated data.

MORE INFORMATION ABOUT THE SPEAKER SERIES AT WWW.FACULTYEXCELLENCE.UCF.EDU



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Shibu Yooseph, Ph.D., is a professor of informatics at the J. Craig Venter Institute and the microbiome lead at Human Longevity, Inc., both located in La Jolla, CA. He has more than 20 years of research and development experience in computational biology, bioinformatics and genomics, having worked in research institutions, industry and academia. Dr. Yooseph has published over 75 articles in different computational and applied science journals, and has been involved in several pioneering genomic and metagenetic projects, including the Human Genome Project, the Mouse Genome Project, *Sorcerer II* Global Ocean Sampling Project, and the Human Microbiome Project.