Genome Sciences Seminar

Wednesday, 5.23.18 | 3:30 | Foege Auditorium

Dr. Gautam Dantas

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"Predicting and Combating Pathogenic and Abiotic Disruptions to Diverse Microbiomes"

The Dantas Laboratory

Microbes are the most ubiquitous lifeforms on Earth. They are found across all habitats studied to date, including the bodies of every living thing (including humans), as well terrestrial, subterranean, and aquatic environments. Microbes collectively represent one of the largest reservoirs of biomass, estimated to account for 350-550 Petagrams (1 Pg = 10^15 grams = 1 billion tons) of carbon, 85-130 Pg of nitrogen, and 9-14 Pg of phosphorous. Their diverse biochemical and metabolic activities impact and control nearly all aspects of biotic and abiotic processes on the planet. In virtually all cases, microbes live and work in complex ecosystems composed of incredibly diverse taxonomic lineages. We take a quantitative ecological perspective in our study of diverse microbial communities, with a focus on human associated microbiota and interconnected environmental habitats. Accordingly, one of our major goals is to understand and quantitatively predict the effects of anthropogenic interventions (e.g. antibiotics) on microbial community composition and function.

Refreshments served outside the Auditorium at 3:20pm
Questions? Contact Brian Giebel at bgiebel@uw.edu or visit the Seminar website at http://www.gs.washington.edu/news/seminars.htm