cMEDA- Center for Microbiome Engineering & Data Analysis

Fall 2021

(Hard to imagine, but we still have coronavirus!)

Newsletter

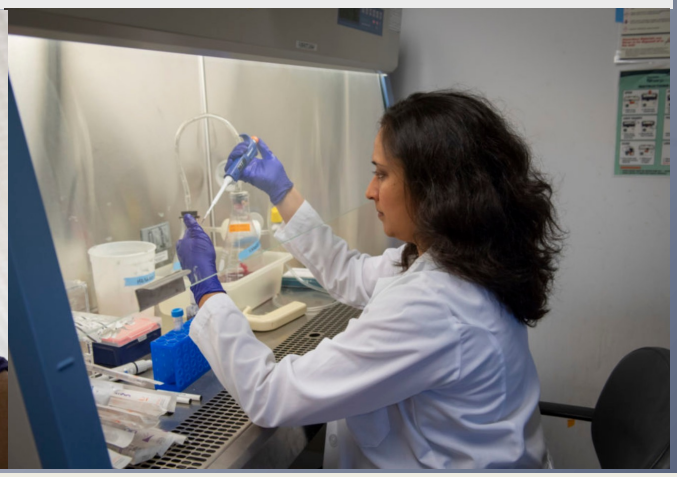
Vision: to exploit the microbiome to improve human health and the environment.

Who is Dr. Ami Bhatt?

Prof. Bhatt is a physician-scientist with interest in microbial genomics and metagenomics. She received her MD and PhD from the University of California, San Francisco, carried out her residency and fellowship at Harvard's Brigham and Women's Hospital and Dana-Farber Cancer Institute, where she served as Chief Medical Resident from 2010-2011. She joined the Departments of Medicine and Genetics at Stanford University in 2014 after completing a postdoc focused on genomics at the Broad Institute. She has received multiple awards for scholarship including the Chen Award of Excellence from the Human Genome Organisation. Her research seeks to illuminate the interplay between the microbial environment and host/clinical factors in human disease. Her laboratory develops novel molecular and computational tools to study strain level dynamics of the microbiome, to understand how microbial genomes change over time and predict the functional output of microbiomes. These innovations facilitate improved measurement of the types and functions of microbes in patients with non-communicable diseases, understanding of the interactions between microbial genes, gene products, and host cells, and testing of the impact of microbially targeted interventions in clinical trials. Prof. Bhatt has world-wide collaborations including in Nigeria and South Africa. She is committed to ensuring that advances in research touch the lives of individuals in all income settings. Thus, in her spare time, she enjoys volunteering for Global Oncology, the nonprofit she co-founded, and serves as the Director for Global Oncology for Stanford's Center for Innovation in Global Health.

The cMEDA Microbiome Forum:

From Precise Microbial Genomics to Precision Medicine
Ami Bhatt, MD/PhD
Medicine and Genetics
Stanford University
October 14 12-1 PM (Zoom)



New Microbiome Grants: (Congratulations!)

1. Methods for integrating longitudinal multi-omics data with application to pre-term birth prediction. PI: Katia Smirnova, Biostat.
2. Prenatal opioids, Sleep and the Gut Microbiome. PI: Amy Salisbury, Nursing
3. The influence of dietary donor human milk fat on postnatal growth failure in the preterm infant. PI: Karen Hendricks-Muñoz, Pediatrics.
4. The influence of HPV on preterm birth via immunomodulation of the microbiome. PI: Kathy Tossas, Health Behavior & Policy.
5. Modeling the host-microbiome-virome interactions and their impact on COVID-19. PIs: Jeff Donowitz (Pediatrics), Tom Arodz (Computer Science), Myrna Serrano & Greg Buck (Microbiology).
6. Bioinformatics analysis of host-microbiome interaction in oral cavity. PI: Janina Lewis (Philips Institute).
7. The role of the vaginal microbiome in precancerous cervical lesions. PI: Kathy Tossas, Health Behavior & Policy

Note: If you have news (new grants, papers published, new collaborations, etc.), please forward it for inclusion in upcoming news letters (gregory.buck@vcuhealth.org)