

Georgia Institute of Technology
Postdoctoral Fellow in Omics
School of Chemistry and Biochemistry

ROLE OF HUMAN MICROBIOME IN INFECTIOUS DISEASES

The Garg laboratory in the School of Chemistry and Biochemistry at Georgia Institute of Technology is seeking applicants for a full-time postdoctoral research associate position to participate in our research on metabolomics of host-microbe and microbe-microbe interactions. Garg lab (<http://www.garglab-microbiomegt.com/>) employs multi-omics methods including cutting-edge mass spectrometry-based metabolomics, spatial metabolomics, imaging mass spectrometry, sequencing, genome mining, and clinical microbiology to interrogate microbe-microbe, microbe-drug, and microbe-host interactions by delineating small molecules underlying these interactions as well as to understand the effect of antibiotics on our microbiome. The [biological roles of microbiome-derived small molecules in health and disease](#) are investigated in clinical samples and *in vitro* culture systems. The overarching goal of our work is to elucidate mechanisms involved in community interactions and to exploit them to target biosynthetic pathways for drug development. The successful candidate will gain hands-on expertise in clinical microbiology, genome mining, acquisition and analyses of mass spectrometry data including high-resolution tandem mass spectrometry, imaging mass spectrometry, big data analyses using bioinformatics infrastructures such as GNPS, metaboanalyst, XCMS Online, CANOPUS, MS2LDA, PLS-Toolbox and many others.

We are seeking candidates with a Ph.D. in Chemistry, Chemical Biology, Microbiology, Biochemistry, Microbial ecology, or a related field, with an interest in applying metabolomics toolkit to investigate community interactions in infectious diseases of humans and corals. Interested applicants should submit a curriculum vitae and the names of three referees by e-mail: neha.garg@chemistry.gatech.edu