

The American Society of Pharmacognosy

<https://www.pharmacognosy.us/job/postdoctoral-researcher-georgia-institute-of-technology/>

Postdoctoral Researcher Georgia Institute of Technology

Description

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, host-symbiont, and microbe-microbe interactions in the coral holobiont. 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 microbiology to interrogate microbe-microbe, and microbe-host interactions by delineating small molecules underlying these interactions. 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, PLSToolbox and many others. Thus, the job also offers the opportunity to engage in method development, unknown metabolite identification, data interpretation, class enrichment, delineation of biosynthetic pathways of natural products, manuscript preparation, and organization of team research efforts, which will frequently include collaborators from Georgia Tech, Smithsonian Marine Station, and Georgia Aquarium. The Garg lab also investigates human diseases through multiomics. Thus, the applicant will also have the opportunity to participate in research across disciplines. The rank and salary will be commensurate with NIH scale. Salary will include the full benefits package. The position is open, and review of applications will begin immediately. The available position is a fully-funded multi-year position through NSF CAREER award to the PI Garg. However, we will encourage, actively help, and

Hiring organization

Georgia Institute of Technology

Employment Type

Full-time

Job Location

Atlanta, Georgia

Date posted

October 26, 2021

Valid through

31.03.2022

share preliminary data for postdoctoral funding applications. We will help you build a portfolio that matches your career goals, including but not limited to pedagogical training.

Responsibilities

The postdoctoral research associate will assist with the culturing of coral microbiome, generation of organic extracts of cultured microbiome and coral fragments from the field, acquisition and analysis of metabolomics data. Data analysis guided isolation and structure elucidation of biologically active natural products and biosynthetic pathways.

Qualifications

We are seeking candidates with a Ph.D. in Chemistry, Chemical Biology, Microbiology, Biochemistry, Microbial ecology, Natural Products or a related field, with an interest in applying metabolomics toolkit and microbiome analyses to investigate community interactions in infectious diseases of corals. Other valuable experience (not required) includes mass spectrometry, chromatography, including LC-MS, metabolomics, NMR, statistics, unknown compound identification, isolation of metabolites and biological research.

Contacts

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