

Postdoctoral Researcher in Chemical Signaling of Algal-Microbiome Interactions, Job Confirmation # – 204451647

Description

Job Description – A postdoctoral researcher position is available in Professor Julia Kubanek's group in the Center for Microbial Dynamics and Infection, School of Biological Sciences and the School of Chemistry & Biochemistry, at the Georgia Institute of Technology. This project is funded by the National Science Foundation in collaboration with the University of Washington, University of New Hampshire, and Haverford College. The postdoctoral researcher will be located at Georgia Tech in Atlanta, GA, USA, with the opportunity to visit collaborators at the other project sites. This interdisciplinary project will tackle the role of chemical signaling in the marine plankton, specifically exploring mechanisms by which microscopic algae interact with marine microbiomes, with impacts on biogeochemical cycles, global climate, and ecosystem health. A newly emerging picture of the microbial loop suggests that bacteria are not merely passive recipients of dissolved organic matter from phytoplankton; rather they actively mediate the flow of organic matter depending on how they deploy their chemical arsenal. This work will characterize the conditions that elicit the production of microbial chemical messengers, the resultant dynamic exchange of metabolites between partners, and the elucidation of mechanisms by which bacterial signals assist phytoplankton evasion from viral death to reveal the regulatory logic and coevolutionary history underlying eukaryote-bacterial interactions. The position will start in July 2021 or soon thereafter and includes competitive salary, benefits, collaborative opportunities in the USA and internationally, and travel budget. Screening of applicants will begin immediately and applications will be considered until position is filled. To apply, please e-mail Julia Kubanek (julia.kubanek@biosci.gatech.edu) with a curriculum vitae (CV), a one-page statement of how your research interests are related to this position, and contact information for 3 references. More information on the group's research can be found at <https://kubanek.biosci.gatech.edu/>. Georgia Tech is located in Atlanta, GA in the Midtown neighborhood – a vibrant, urban community: <http://www.midtownatl.com/>. Georgia Tech is a unit of the University System of Georgia and an Affirmative Action/Equal Opportunity Employer.

Responsibilities – The postdoc will lead lab-based research and support student learning through supervision of undergraduate researchers along with having the opportunity to co-teach a 7-week hands-on interdisciplinary research course.

Qualifications – Expertise in any of these areas is desirable: bioanalytical chemistry including metabolomics, chemical separations, mass spectrometry, NMR spectroscopy; microbiology, algal cultivation, and cell culture techniques; statistical methods for analyzing complex datasets; computational tools for molecular structure determination and probing of

Hiring organization

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metabolic networks. Preferences for applicants include: (1) PhD in chemistry, biology, marine science, or a related area; (2) Interest in using chemical approaches to understand biological phenomena; (3) Experience designing, executing, and analyzing experiments that include quantitative data; (4) Excellent communication skills including scientific writing.

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Contacts

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<https://biosciences.gatech.edu/about/jobs/2826>