

Postdoctoral position in metabolomics of the marine rhizosphere

To apply: <https://aprecruit.ucmerced.edu/JPF01758>

The Sogin Lab, in collaboration with Jay Stachowicz (UC Davis), Jonathan Eisen (UC Davis), and Gina Chaput (UC Davis) currently have an open, NSF-funded post-doctoral position centered on exploring the changes in the metabolome of seagrass-microbiome interactions under global climate change stress. Our collaborative team is centered on employing a cross disciplinary approach to (1) assess the assembly and function of the *Zostera marine* (eelgrass) microbiome under ambient and experimentally elevated temperature conditions, (2) determine how plant exudation changes as a function of increased temperature by quantifying the composition and release of small molecules to the eelgrass rhizosphere that may influence microbial recruitment, and (3) culture putatively beneficial bacteria and experimentally test the effects of shifts in the host microbiome on host growth and survival under a range of temperature conditions and in the presence and absence of seagrass exudates.

The results of this project extend and modify the prevailing paradigm of how facilitative interactions change with environmental stress. Overall, our aim is to define the role of the eelgrass microbiome in mediating the health, survival and maintenance of this foundation species found along three continents throughout the northern hemisphere.



The successful postdoctoral candidate will contribute to research centered on studying the metabolome of eelgrass-microbiome interactions. Duties will include carrying out field and wet lab experiments, collection and analysis of analytical data with a focus on mass spectrometry techniques and writing of resulting manuscripts from project. Additional duties include mentoring students within the Sogin lab and facilitating

interactions with students in the Stachowicz and Eisen labs, presenting research at national and international meetings and contributing to a positive lab atmosphere. The position will be largely centered around wet-lab research however there are opportunities within the project for field-based experiments and computational research. Finally, the successful candidate will be encouraged to pursue independent research related to the project.

The Sogin lab (soginlab.com) is located at the University of California Merced, which is an R2 institution and is designated a Hispanic Serving Institution. In our lab, we take a team-based approach towards studying host associated microorganisms within marine systems. We conduct field work at UC Davis' Bodega Marine Lab and have a strong collaborative partnership with UC Davis professors, postdocs, and students.