

PhD student Position in Microbial Ecology

Division of Microbial Ecology (www.microbial-ecology.net), Department of Microbiology and Ecosystem Science, University of Vienna, Austria

A PhD student position is available within the Group of Jillian Petersen
<http://www.microbial-ecology.net/people/jillian-petersen>

ERC Starting Grant project '400 Million Years of Symbiosis: Host-Microbe Interactions in Marine Lucinid Clams from Past to Present'

Project description:

interactions with microbes drive the health, development and evolution of virtually all animals, including humans, but the underlying mechanisms are still poorly understood. Many marine animals have evolved intimate associations with just one or a few species of chemosynthetic bacteria, which makes them ideal for investigating molecular crosstalk between animals and beneficial microbes. The project will focus on marine lucinid clams, which host a specific species of sulfur-oxidizing bacteria in their gill cells. These clams inhabit shallow marine environments such as coastal seagrass sediments that are easily accessible for sampling, and they can be kept and bred in aquaria.

The PhD student will have the unique opportunity to combine work in the field with lab-based experiments to investigate host-microbe interactions in the lucinid symbiosis, in particular on the mutual exchange of proteins and metabolites between symbionts and hosts. Possible techniques include heterologous expression, mass spectrometry imaging, metabolomics, metabolic modeling, stable isotope probing, and NanoSIMS.

Required qualifications. We are looking for a highly motivated PhD student with a strong interest in host-microbe interactions. Applicants should hold an MSc degree in microbiology or a related field and ideally have a practical background in molecular techniques.

Experience in one or more of the following areas/techniques will be an advantage: heterologous expression, microbial genomics, transcriptomics, proteomics or metabolomics, fluorescence in situ hybridization (FISH), setup and maintenance of laboratory aquaria, molecular profiling of microbial communities.

Good communication skills in English (written and spoken) and the ability to work in a team are essential.

Conditions of appointment. The successful candidate will receive funding for up to four years according to the salary scheme of the University of Vienna. The University of Vienna is an equal opportunity employer. Minorities are strongly encouraged to apply.

Application details. Applicants should submit a letter of motivation, curriculum vitae, copies of final transcripts of bachelors and masters studies (if already completed), a summary of the masters thesis (if already completed), as well as names and contact information or reference letters of 2 referees. **These documents should be sent as a single pdf file to Jillian Petersen via email: petersen@microbial-ecology.net.**

Start date is from Feb 1st 2019. Review of applications will begin immediately, and will continue until the position is filled.