1 x 0,65 PhD Position (f/m/d) in Chemical Ecology of Bacteria-Diatom Interactions

The University of Bremen, Faculty 2, Marine Chemistry, is offering (under the condition of job release) at the earliest possible date:

Salary group 13 TV-L, 65% for a period of 3 years.

Phytoplankton primary production is fueled by spatially close interactions between microalgae and bacteria. Yet, the drivers of specific interactions and associations between bacteria and phytoplankton are poorly understood. Using the Antarctic diatom Fragilariopsis, you will test if the diatom recognizes bacteria and evokes inducible downstream strategies to harbor beneficial or fend off detrimental bacteria, respectively. You will use established co-culture systems of the diatom and bacterial isolates and methodically combine biochemistry, analytical chemistry, microbiology and molecular biology to identify mechanisms involved in establishing and maintaining the diatom holobiont. This project suits a candidate with demonstrated experience in environmental microbiology, molecular biology, biochemistry or related fields who is highly motivated to undertake interdisciplinary research on symbiotic model systems.

You will

- Axenify the diatom and generate bacterial cultures from its microbiome as well as Antarctic bacterioplankton.
- In co-incubation experiments with axenic/xenic diatoms you will characterize intra- and extra-cellular responses of Fragilariopsis to bacteria and their molecular elicitors using diagnostic biochemical tools and instrumental analytical chemistry.
- The short-term goal is to corroborate an active immune-like response of Fragilariopsis to bacteria. The long-term goal is to challenge the recognition process by adjusting future SO climate regimes.

The successful candidate will have a relevant Master's degree or Diploma and collective experience in experimental ecology, microbiology, molecular biology or biochemistry together with a good understanding of analytical chemistry. We are looking for a highly committed personality interested in joining an interdisciplinary research team focusing on Marine Chemical Ecology. Students who are in the process of writing their MSc thesis and do not yet have a certificate are also invited to apply. Prior to employment, the MSc certificate has to be issued.

The position is funded by the DFG Priority Program “Antarctic Research with Comparable Investigations in Arctic Sea Ice Areas” and employment is via the University of Bremen. The research is mainly done at the Alfred Wegener Institute, Helmholtz Centre of Polar Marine Research, in Bremerhaven with intermittent work packages at the University of Bremen, Faculty of Biology and Chemistry.

As the University of Bremen intends to increase the proportion of female employees in science, women are particularly encouraged to apply. In case of equal personal aptitudes and qualification, priority will be given to handicapped applicants.
International applications and applications of researchers with a migration background are explicitly welcome.

We look forward to receiving your application with the following documents: Curriculum vitae, motivation letter, copies of BSc and MSc university certificates incl. transcript of records. Your motivation letter should include a short abstract of the research field and specifically address why this topic and its methodical approach is of interest to you.

Please do not hesitate to contact Prof. Tilmann Harder to gather more information about this position or the application process.

Applications should be sent with the reference number A176/21 until 20.08.2021 to:

Prof. Tilmann Harder
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