Hosting offer for Marie Skłodowska-Curie Postdoctoral Fellowships (PF) 2022 at University of Bremen/Research group Microbial Ecophysiology/MARUM Center for Marine Environmental Science

MSCA Postdoctoral Fellowships are individual research grants offering excellent postdoctoral researchers the chance to develop their skills by means of international mobility. Through the implementation of an original and personalised research project, MSCA Postdoctoral Fellowships aim to foster excellence through training and mobility and to equip researchers with new skills and competences in order to identify solutions to current and future challenges.

The Microbial Ecophysiology group (MECO) at the University of Bremen invites motivated postdoctoral researchers to jointly prepare an application for the Marie Skłodowska-Curie Postdoctoral Fellowships call (MSCA-PF-2022) with them as host organisation.

Description of Hosting organisation/group

We are a well-established lab specialized in the microbial ecology and ecophysiology of marine sediments. We combine (aerobic and anaerobic) cultivation and enrichment experiments, NGS technologies and highly sensitive stable isotope probing techniques to unravel the most often mysterious lifestyles of microbes in interesting environments in the North Sea, the Antarctic and the sub-Antarctic. Our current projects delve into carbon utilization patterns of recently discovered Archaea, the iron and sulfur cycles in deep sediments, and ancient DNA in millennia old sediment samples. For this, we are well equipped with a number of sophisticated instruments (e.g., ultracentrifuges, qPCR, anaerobic chambers, gas chromatography, fluorescence microscopy) and computational power (e.g. a 256-core server for fast metagenomics). As our group is embedded within large research centers on campus, such as MARUM, AWI or the Max Planck Institute for marine Microbiology, we can offer a plethora of cooperation possibilities within a globally renown hub for marine research.

We offer a young and dynamic research environment in an old and beautiful city, in which you will be not only following your own projects, but can contribute to your colleagues' as well, providing many opportunities to collaborate, to learn and to publish your research.

https://www.uni-bremen.de/en/microecophys

Topics/expertise

We are welcoming postdoctoral candidates that are interested in understanding structure and function of anaerobic microorganisms in marine sediments. Among future topics, new research into the degradation of highly complex sugar polymers of algal origin in iron-rich marine sediments, the coupling of the iron and sulfur cycles in polar sediments, the competition of anaerobically respiring microorganisms for common electron donors, the reconstruction of ancient anaerobic microbial

communities in sediments, and the development of new methods for connecting physiology and genomics of uncultivated microorganisms (e.g. using stable isotopes) will be conducted.

Potential Supervisors:

- *Prof. Dr. Michael W. Friedrich, anaerobic microbiology, stable isotope probing molecular ecology*
- *Dr. Xiuran Yin, stable isotope probing, bioinformatics, molecular ecology*
- *Dr. Tim Richter-Heitmann, statistics, bioinformatics, molecular ecology*

Your profile

- Expected qualifications/expertise of the candidate)
    - a PhD in microbiology, biochemistry, bioinformatics, molecular biology, marine biology or related fields (e.g., (bio)geochemistry)
    - Interest in developing a strong research profile in anaerobic marine microbiology
- You must have a completed PhD at the time of the call deadline (14 September 2022).
- Candidates must have a maximum of 8 years full-time research experience from the PhD award date until September 14, 2022. Periods of inactivity in research (e.g. unemployment, periods of employment outside research, parental or sick leave) do not count towards the time of research experience.
- For European fellowships, candidates can be of any nationality and must not have resided or carried out their main activity (work, studies, etc.) in Germany for more than 12 months in the 36 months immediately before September 14, 2022.
- Highly motivated candidate with an excellent research track record appropriate to career stage, as evidenced by academic publications and other scientific output.

What we offer

- Support and guidance for the preparation of your MSCA PF proposal, backed by the expertise of the Funding Advisory Service at the University of Bremen
- A stimulating, interdisciplinary environment for high-level research.
- Access to intramural funding opportunities
- Mentoring with the goal to build your independent career

How to apply?

Indicate your interest by contacting the host institution as follows:

Please contact Michael W. Friedrich by email (michael.friedrich@uni-bremen.de) with a short CV and motivation to indicate your interest to prepare a MSCA-PF application with a supervisor /host group/…

After the supervisor agrees to support you as a MSCA-PF candidate, you can start preparation of MSCA PF project proposal and will be supported further by the Funding Advisory Service of the host university.

For more information please contact the MSCA coordinator of the host institution: eu@vw.uni-bremen.de.