

**Four vacancies at the  
Max Planck Institute for Marine Microbiology/  
Center for Biotechnology (University of Bielefeld)**

## **Startup of a new Research Group - the Microbial Fitness Group**

### **Overview**

The Microbial Fitness Group addresses the molecular basis of the ecological fitness of bacteria. We aim to understand how the environment selects for specific microbial processes, organisms and genes. We approach this problem from a System Sciences perspective and proceed from first principles: Chemistry and Thermodynamics. The experimental approach consists of the sampling of natural microbial communities, the incubation of these communities in laboratory bioreactors and the monitoring of community dynamics by -omics and in situ approaches. This is a unique combination, that enables both complete control over environmental conditions and a comprehensive characterization of the resulting microbial communities. Results are interpreted in the context of a mathematical model of communal metabolism. Microbial nitrogen and methane cycling are currently the main focus. This research is a joint effort of the [Max Planck Institute for Marine Microbiology](#) and the [Center for Biotechnology](#) (CeBiTec), University of Bielefeld.

### **Vacancy - Research Scientist Position**

The appointment will be for two years, with a possible extension up to five years.

The motivated candidates will be based at the MPI Bremen, sample natural microbial communities, incubate the samples in laboratory bioreactors under precisely defined conditions, and study the community dynamics by metagenomics. The results will be interpreted with a thermodynamic model of communal metabolism. The experimental approaches will include mass and heat balancing (calorimetry), isotopic labeling, molecular ecology and mathematical modeling. The research will address key questions in microbial nitrogen and methane cycling and will involve occasional participation on international research cruises.

For further information please contact: [☐ Dr. Marc Strous](#)

For this position a PhD is required in either of these disciplines. The salary is according to the German system for public employees (**E 13 TVöD**). Applicants need to submit a curriculum vitae, the addresses of at least two previous supervisors and list of publications if available until **May 16, 2009** to

Max-Planck-Institut für marine Mikrobiologie  
Kennz: Post-Doc Bre 03  
Celsiusstr. 1  
28359 Bremen

### **Vacancy - Post-Doc Position**

The appointment will be for two years, with a possible extension up to five years.

The motivated candidate will be based at the CeBiTec, Bielefeld and will perform metagenomic sequencing, mass spectrometry for proteomics, gas chromatography for metabolomics, and set up the pipelines for data processing and interpretation. The research will address key questions in microbial nitrogen and methane cycling and in microbial fitness and population dynamics in

general.

For further information please contact: [☐ Dr. Marc Strous](#)

Required is a PhD in microbial genomics or computational sciences. The salary is according to the German system for public employees (**E 13 TVöD**). Applicants need to submit a curriculum vitae, the addresses of at least two previous supervisors and list of publications if available until **May 16, 2009** to

**Max-Planck-Institut für marine Mikrobiologie**

**Kennz: Post-Doc BI 02**

**Celsiusstr. 1**

**28359 Bremen**

#### **Vacancy - PhD student position**

The motivated candidate will be based at the MPI Bremen, sample natural microbial communities, incubate the samples in laboratory bioreactors under precisely defined conditions, and study the community dynamics by metagenomics. The results will be interpreted with a thermodynamic model of communal metabolism. The experimental approaches will include mass and heat balancing (calorimetry), isotopic labeling, metagenomics, proteomics, metabolomics, molecular ecology and mathematical modeling. The research will address key questions in microbial nitrogen and methane cycling and will involve occasional participation on international research cruises.

For further information please contact: [☐ Dr. Marc Strous](#)

Required is a Masters` degree or Diploma in the engineering sciences or environmental microbiology. Applicants need to submit a curriculum vitae, the addresses of at least two previous supervisors and list of publications if available until **May 16, 2009** to

Max-Planck-Institut für marine Mikrobiologie

Kennz: Doc BI 01

Celsiusstr. 1

28359 Bremen

#### **Vacancy – Research Assistant**

The appointment will be until 30/11/2013.

The motivated candidate will be based at the MPI Bremen and support the group in molecular ecology (e.g. real time PCR, clone libraries) and microscopy (e.g. fluorescence in situ hybridization), gas chromatography and mass spectrometry, maintenance of bioreactors and general laboratory organisation. The work will involve occasional participation on international research cruises.

For further information please contact: [☐ Dr. Marc Strous](#)

Required is a relevant education and experience with Microscopy and PCR. The salary is according to the German system for public employees (**E 9 TVöD**). Applicants need to submit a curriculum vitae, the addresses of at least two previous supervisors and list of publications if available until **May 16, 2009** to

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28359 Bremen