Job advertisement no. 141/2022

The department MICA - Anti-infectives from Microbiota, led by Prof. Christine Beemelmanns at the Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS) in Saarbrücken, is offering a position as

**Postdoctoral Researcher (f/m/d)**

“Structural and functional analysis of bacterial natural products inducing cell differentiation processes”

to support our international and interdisciplinary team.

The Helmholtz Institute for Pharmaceutical Research Saarland (HIPS) researches new active ingredients against infectious diseases. It was founded in August 2009 as a branch of the Helmholtz Centre for Infection Research (HZI) in Braunschweig together with Saarland University. A new research building was moved into on the campus of Saarland University in 2015. Currently, 120 employees of international origin work at the institute, which is still under construction. The HIPS is the first publicly funded non-university research institution in Germany explicitly dedicated to pharmaceutical research. The institute cooperates with international and national research institutions and industrial companies.

The ERC-funded research project is part of the ERC Starting Grant MORPHEUS, which focusses on the structural and functional analysis of bacterial natural products and biomolecules involved in the cell differentiation processes and defense of marine organisms.

The successful candidate will work on the isolation and structural characterization of these bioactive molecules from host-associated microbes, analyze the chemosphere of microbial communities and perform bioassays to deduce possible functions of isolated metabolites. The successful candidate should apply modern co-cultivation techniques of microbial communities to activate otherwise silent gene clusters and pursue the isolation of these cryptic metabolites. If possible, the candidate should support efforts to generate whole genome or metagenome sequencing data of the investigated microbial communities.

**Responsibilities:**

- Purification and Isolation of natural products
- Structural analysis of natural products using modern nuclear-magnetic resonance (NMR) and mass spectrometry (MS)-based analysis techniques, and related methods
- Microbial cultivation techniques (fungal or bacterial samples)
- Coordination of next generation sequencing data analyses efforts
- Project coordination, data analysis and database management …
- Scientific writing and presentations

**Requirements:**

- Doctorate degree in Chemistry, Chemical Biology, Life Sciences or related fields (university degree in chemistry, biochemistry or a related discipline). Candidates about to obtain their degree are welcomed to apply
- Strong hands on experience in laboratory and analytical techniques, in particular NMR and MS-based techniques and analysis methods.
- Excellent understanding of chemical structures
- Profound knowledge in microbial metabolism and biosynthetic pathways
- General understanding of chemical and biochemical interactions involved in microbial interactions
- Ability to pay attention to details, pursue research independently and work in a goal-oriented manner.
- Willingness to work in a plural, collegial, international and interdisciplinary environment.
- Fluency in English language (written and spoken), very good skills in scientific writing skills
Advantageous for this position:
- Experience with cell culture and cultivation of primary cell lines.
- Expertise in next generation sequencing technique
- Experience in molecular methods and/or transcriptomic studies.

We offer you:
- Modern laboratories
- State-of-the-art analytical instrumentation
- a dynamic and international research environment
- additional services of the public service
- extensive further training opportunities
- flexible working hours and workplace design
- Support for a better balance between work and private life through our family office

People with severe disabilities and equivalent professional qualifications who are suitable for the position are given preference. In order to protect your rights, we ask you to provide us with a clearly recognizable reference to the existence of a degree of severe disability in your cover letter or resume. The HZI strives for professional equality between women and men. The position is suitable for part-time work and will be realized within the scope of the possibilities of the service.

Starting date: As soon as possible. The contract will initially run for two years.
Salary: E 13 TVöD Bund
Working time: 39 hours per week
Place of work: Saarbrücken/ HIPS
Probation period: 6 months
Published: 02.09.2022
Closing date: 25.09.2022

When sending us your application documents, please confirm that you have read our privacy policy and that you agree to the processing of your personal data. Please use the text module in our privacy policy for this purpose. Without these declarations, we cannot consider or process your application and will immediately delete any application documents already received after the application deadline.

For further information please contact Prof. Christine Beemelmanns directly by email: christine.beemelmanns@helmholtz-hips.de

Please send your complete application, quoting the reference number 141/2022, to the Helmholtz Centre for Infection Research GmbH, Human Resources Department, Inhoffenstr. 7, 38124 Braunschweig, Germany or by e-mail to JobsHIPS@helmholtz-hzi.de. If you send your application in electronic form, please provide a summary in one single (1) pdf document.