
Job Advertisement Microverse PhD-08/2020

The **Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute** (Leibniz-HKI, www.leibniz-hki.de) investigates the pathobiology of human-pathogenic fungi and identifies targets for the development of novel natural product-based antibiotics. Talented and highly qualified candidates are invited to apply for a position in a newly established **Microverse Junior Research Group** as a

Doctoral Researcher (f/div/m) in Fungal Informatics

Research Areas: Bioinformatics, metagenomics, microbial ecology

This project is part of a newly established research group using computational and experimental approaches to understand how ecological interactions shape human pathogenicity in fungi.

The field of study:

The successful candidate will investigate how environmental fungi cause human disease using genomic, transcriptomic, and metagenomic approaches. The main foci of the project are:

- Defining metagenomic communities and microbial interaction networks involving human-pathogenic fungi.
- Delineating shared and niche-specific patterns among ecological and human-associated environments.

Required Qualifications:

- Master's degree (or equivalent) in bioinformatics, computational biology, microbiology, biochemistry, computer science, or a related discipline.
- Knowledge and expertise in the analysis of biological high-throughput data.
- Knowledge in statistical methods in the context of biological systems.
- Experience with programming (Python, Perl, R, or C++).
- Very good communication skills in English.

We offer:

The successful candidate will be join the newly established **Junior Research Group Fungal Informatics** led by **Dr. Amelia Barber** and hosted by **Assoc. Prof. Gianni Panagiotou** and the **Systems Biology & Bioinformatics Group (SBI)** at the Leibniz Institute for Natural Product Research and Infection Biology—Hans Knöll Institute in Jena, Germany. SBI is a multidisciplinary group focused on understanding the role of the microbiome in metabolic disease, cancer, infection, and environmental microbial communities. SBI is currently coordinating the Horizon 2020 Innovative Training Network “BestTreat” with 16 international partners, is a member of the DFG Cluster of Excellence “Balance of the Microverse”, of the Hong Kong Area of Excellence “Institute of Metabolic Diseases”, of the DFG Collaborative Research Center/Transregio “FungiNet” and of the Collaborative Research Fund “MarineGEO Hong Kong”, all related to the integration of phenotypic, genomic and microbiome data using machine learning models and network based analysis. The successful candidate will be fully integrated in the SBI and benefit from shared samples, data, and methods with the other PhD students and post-doctoral researchers of the group.

We offer a convivial work atmosphere in an interdisciplinary and international research environment. The Leibniz-HKI is embedded in the outstanding scientific environment of the Beutenberg Campus providing state-of-art research facilities and a highly integrative network of life science groups. The group is part of the Microverse Cluster of Excellence and the PhD candidate will become a member of the **Jena School of Microbial Communication** and have the option to participate in the structured program of the **International Leibniz Research School**.

The position is for 3.5 years. Salary is paid according to German TV-L (salary agreement for public service employees). As an equal opportunity employer, the Leibniz-HKI is committed to increasing the percentage of female scientists and therefore especially encourages them to apply. The anticipated start date is February, 2021 or sooner if desired.

Further information:

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Applications:

Complete applications in English should include a cover letter with a brief statement of experience and motivation, CV, certificates, transcripts, and the contact information of two possible referees. Application should be submitted by **December 3, 2020** via the JSMC online application portal:

<https://apply.jsmc.uni-jena.de/>.