

Stellenausschreibung

Reg.-Nr. 05/2021

Fristende 29.04.2021



FRIEDRICH-SCHILLER-
UNIVERSITÄT
JENA

The **Cluster of Excellence “Balance of the Microverse”** of the Friedrich Schiller University Jena, Germany, combines expertise in life, material, optical and computational sciences to elevate microbiome studies from descriptive to hypothesis-driven and functional analyses. Our core mission is to elucidate fundamental principles of the interactions and functions in microbial communities in diverse habitats ranging from oceans and groundwater to plant and human hosts. We aim to identify the shared characteristics of disturbed or polluted ecosystems as well as infectious diseases on the microbiome level, and develop strategies for their remediation by targeted interventions. Our full spectrum of expertise in the physical and life sciences will be leveraged to address these important issues in natural habitats as well as synthetic arenas in a collaborative manner. The affiliated early career program of the *Jena School for Microbial Communication (JSMC)* offers an ambitious, structured and interdisciplinary post-graduate training based on top-level fundamental research.

The Cluster of Excellence *Balance of the Microverse* invites applications for a
Doctoral Position (Ref. No. 05/2021)
to conduct research in the group of Prof. Dr. Axel Brakhage on the project

Microbiota-driven risk assessment, prevention and clearance of invasive aspergillosis

The research objectives of this project are: (1) to investigate the dysbalance in gut and lung microbiota associated with the immunosuppression and pathogenesis of *A. fumigatus*, (2) to identify microbiome-related metabolic dependencies of *A. fumigatus* pathogenesis that can be used to explore novel drugable targets, (3) to interrogate whether the therapeutic benefit of antifungal treatment is in part mediated by the gut and lung microbiota or whether antifungal treatment helps to rebalance the distorted microbiome.

We expect:

- An MSc (or equivalent) in Microbiology, Biochemistry or related disciplines. Candidates in the final stages of obtaining their doctorate are also eligible to apply
- Desirable methodological skills: Experience in the analysis of host pathogen interactions
- Highly motivated individuals with an interest in joining one of the interdisciplinary research areas of the Microverse Cluster
- The ability to work creatively and independently towards developing your own research project
- An integrative and cooperative personality with enthusiasm for actively participating in the dynamic Microverse community
- English communication skills, both written and spoken

We offer:

- A highly communicative atmosphere within an energetic scientific network providing top-level research facilities
- A comprehensive mentoring program and soft skill courses for early career researchers
- *Jena – City of Science*: a young and lively town with a vibrant local cultural agenda

The three and a half year full-time doctoral researcher position (65% TV-L E13) will be funded through the Excellence Strategy of the German federal and state governments or the Carl Zeiss Foundation or the German Academic Exchange Service. The Friedrich Schiller University Jena is an equal opportunity employer and part-time contracts can be discussed. Disabled persons with comparable qualifications will receive preferential status.

Applications are exclusively accepted via the JSMC Online Application Portal:

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

Please familiarize yourself with the currently available doctoral projects (www.microverse-cluster.de) and the application process as described in the Online Application Portal. Selected applicants will be invited to an online recruitment meeting taking place in May. Awarding decisions will be announced shortly thereafter, and candidates are expected to be available to start their projects in mid of 2021.

Application deadline: 29th April 2021