

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 ground water 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 Researcher Position (Microverse 26/2019)
to conduct research in the group of Prof. Andreas Tünnermann, Dr. Markus Gräfe,
Dr. Frank Setzpfandt on the project

Mid-infrared microscopy with quantum light for chemical imaging of cell communities

We expect:

- An MSc (or equivalent) in physical sciences or optics. Candidates in the final stages of obtaining their degree are eligible to apply
- Desirable methodological skills: experimental optics, quantum optics, microscopy techniques, optical design
- 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
- Excellent English communication skills, both written and spoken

We offer:

- A highly communicative atmosphere within a 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 (75% TV-L E13) will be funded through the Excellence Strategy of the German federal and state governments, the Carl Zeiss Foundation or the German Academic Exchange service. The Friedrich Schiller University Jena is an equal opportunity employer. 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 projects (www.microverse-cluster.de) and the application process as described in the Online Application Portal. Selected applicants will be invited to a recruitment meeting in Jena end of August/ mid-September 2019. Awarding decisions will be announced shortly thereafter, and candidates are expected to be available to start their projects in 2019. **Application deadline: 5th August 2019**