

Job advertisement

Vacancy ID: 097/2025

Closing date: 22.05.2025



The Friedrich Schiller University Jena is a dynamic and innovation-driven university centrally located in Germany. With a broad range of disciplines, it shapes the future through excellent research and teaching. Its scientific excellence is reflected in the profile lines **Light – Life – Liberty**, which provide pioneering insights and sustainable solutions for the society of tomorrow. Through close collaborations with leading research institutions, innovative companies, and renowned cultural organizations, it advances interdisciplinary developments. With around 17,000 students and approximately 10,000 employees, it defines Jena as a vibrant, internationally connected city of science and innovation.

The core mission of the [Cluster of Excellence "Balance of the Microverse"](#) of the Friedrich Schiller University Jena 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. 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

Postdoctoral Researcher Position in the Field of Vampiristic Interactions among Bacteria

at the earliest possible date.

We offer a full-time position (40 hours per week) for two years.

Background:

Bacteria of the Candidate Phyla Radiation (CPR) represent more than 25% of the total bacterial diversity on Earth. However, knowledge about their life styles and metabolic properties is still scarce due to lack of cultured representatives. Limited de novo biosynthesis capabilities point to a host-dependent life style of CPR. This project aims to characterize physiological, metabolic and molecular features of a recently cultivated vampiristic member of the CPR with its host, obtained from groundwater. We will use transcriptomics, proteomics, and cryo-TEM to study mechanisms of cell-cell recognition, attachment, and the parasite's strategies to exploit the host cell's cellular resources. We further aim to identify molecular traits underlying host specificity. As our new Postdoc in this field, you will support and advance ongoing cultivation efforts with challenging CPR parasite-host systems and gain insight into the mechanisms of their interaction.

The project will be hosted at the Aquatic Geomicrobiology working group at the Institute of Biodiversity, Friedrich Schiller University Jena.

Your responsibilities:

- Maintenance of the host-parasite system and characterization of growth and infection dynamics in incubation experiments
- Close collaboration with working groups using Raman-based cell sorting and microscopic imaging including cryo-TEM
- Metatranscriptomics and metaproteomics data analysis
- Work in an interdisciplinary team of microbial ecologists and integrate into the Cluster of Excellence consortium
- Contribute to the development of the project, as it evolves
- Produce high-quality written reports and draft papers. Present your results at international and national conferences and at local meetings and outreach events

- Assist with training other researchers, including PhD candidates, Masters' and undergraduate project students
- Contribute to maintaining the friendly, welcoming and collaborative environment within the group

Your profile:

- A PhD (or equivalent) in microbiology or related disciplines. Candidates in the final stages of obtaining their doctorate are also eligible to apply
- Excellent background in microbial ecology, documented by publications in peer-reviewed journals
- Desirable methodological skills: Experience in microbiological cultivation techniques, microscopic techniques, and general methods of molecular microbial ecology, NGS and multiomics analysis
- 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
- 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
- A family-friendly working environment with a variety of offers for families: University Family Office 'JUniFamilie' and flexible childcare ('JUniKinder')
- University health promotion and a wide range of university sports activities
- Remuneration based on the provisions of the Collective Agreement for the Public Sector of the Federal States (TV-L) up to salary scale E 13 (depending on the candidate's personal qualifications) including a special annual payment in accordance with the collective agreement
- 30 days of vacation per calendar year plus two days off on December 24 and 31

The advertised full-time position is limited to two years. The position will be funded through the Excellence Strategy of the German federal and state governments. A part-time contract can be discussed. To promote gender equality in science, applications by women are especially welcome. Candidates with severe disabilities will be given preference in the case of equal qualifications and suitability.

Are you eager to work for us? Then apply by **22.05.2025** using our online form.

[Online application](#)



For further information on your application and the collection of personal data, please refer to our [Privacy Statement for Applicants](#)