

## Job offering

The Institute of Molecular Infection Biology, University of Würzburg is offering

### **Two Postdoctoral positions (f/m/d) in Molecular Biology/Biotechnology/Bioengineering/Bioinformatics**

#### **“Studying gene regulation in bacterial pathogens at the single cell level using microfluidics and live-cell microscopy”**

We are looking for two postdoctoral researchers (one wet-lab scientist and one bioinformatician) in the field of **Molecular Biology / Biotechnology / Bioengineering / Microbiology / Bioinformatics** to study RNA-based regulation in bacterial pathogens at the single cell level in real time. In our recently awarded **MOMENTUM** project funded by the VolkswagenStiftung we aim to set-up **microfluidic systems coupled with live-cell microscopy** to monitor gene expression and stress responses in bacteria. Successful applicants will work in an interdisciplinary and international team at the Department of Molecular Infection Biology II (Prof. Dr. Cynthia Sharma) in Würzburg, Germany. Research in our group focuses on mechanisms and functions of gene regulation in stress response and virulence control of the human pathogens *Helicobacter pylori* and *Campylobacter jejuni*. For further information on our research, please see also our recent publications: Jiao et al., 2021, *Science* (PMID: 33906967), Pernitzsch et al., 2021, *Nature Communications* (PMID: 34290242), Eisenbart et al., 2020, *Molecular Cell* (PMID: 33002424), or our website: [www.uni-wuerzburg.de/en/imib/research/sharma/](http://www.uni-wuerzburg.de/en/imib/research/sharma/).

Successful candidates will:

- Set up microfluidic devices combined with time-lapse microscopy
- Monitor single-cell parameters and heterogeneity of RNA-based regulation in live bacterial cells
- Develop data analysis tools for single-cell parameters and time-resolved reporter expression data

**Applicants should have the following qualifications:**

- PhD/doctoral degree in either life sciences, natural sciences, mathematics, or engineering
- Research background in RNA biology/molecular biology, microscopy/image-based data analysis, biotechnology/bioengineering, microbiology, or bioinformatics/computer sciences
- Strong written and spoken English skills, high self-motivation, dedication to perform excellent research

**We offer:**

- An interdisciplinary and international research team
- An open-minded and collaborative work environment with a strong focus on RNA and infection biology
- State-of-the-art infrastructure and cutting-edge technologies
- Diverse opportunities for further education, career development, and training at the JMU Würzburg

We welcome applications from all sections of the community regardless of race, gender, or disability. The University aims to increase the proportion of female employees. Thus, applications from qualified women are particularly welcome. Preference will be given to severely handicapped persons in case of otherwise equal aptitude. The position is available for an initial period of one year with the possibility of extension for another three years. Salary is based on the pay scale for the public sector (TV-L).

Please send your application including a letter of motivation, CV, and publication list, copies of relevant documents, and contact information of two academic references as a **single PDF-file** until **June 25th, 2023** via email to [petra.thomas@uni-wuerzburg.de](mailto:petra.thomas@uni-wuerzburg.de). For informal inquiries contact Prof. Cynthia Sharma ([sharma.ngs@uni-wuerzburg.de](mailto:sharma.ngs@uni-wuerzburg.de)).

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