



Doctoral student / postdoc in biological physics & systems biology (f/m/x)

Institute for Biological Physics

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

Within the framework of Collaborative Research Center 1310 »Predictability in Evolution«, the Bollenbach group at the Institute of Biological Physics investigates the evolution of antibiotic resistance in microbial systems. The group combines methods from molecular biology and microbiology with concepts and techniques from physics.

YOUR TASKS

- » Perform high-throughput evolution experiments with *E. coli* lab strains and clinical isolates using robotic laboratory automation
- » Analyze evolving bacterial populations, in particular using genome barcoding assays and next-generation sequencing
- » Perform standardized microbial proteomics experiments
- » Develop theoretical models of resistance evolution in collaboration with theorists

YOUR PROFILE

- » Very good MSc degree / doctoral degree in biological physics, quantitative biology, or a related field
- » Strong interest in interdisciplinary research in the area between physics and biology
- » Previous knowledge of programming, statistics or microbiology is an advantage but not essential.
- » Strong communication skills are required.
- » Applicants should be highly motivated and able to work independent

WE OFFER

- » An interactive and supportive research environment
- » A diverse working environment with equal opportunities
- » Support in balancing work and family life
- » Flexible working time models
- » Extensive advanced training opportunities
- » Occupational health management offers

The University of Cologne promotes equal opportunities and diversity. Women will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from all suitable candidates regardless of their gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.

The position is available immediately on a full-time basis (39,83 hours Postdoc (65% doctoral student) per week). The position is to be filled for a fixed term until 30 September 2028. If the applicant meets the relevant wage requirements and has the appropriate personal qualifications, the salary is based on remuneration group 13 TV-L of the pay scale for the German public sector.

Please apply online with proof of the required qualifications (without a photo) under <https://jobportal.uni-koeln.de>. The reference number is Wiss2606-05. The application deadline is 10 July 2026.

For further inquiries, please contact Professor Dr. Tobias Bollenbach at (t.bollenbach@uni-koeln.de) and take a look at our [FAQs](#).