

PhD position (f/m/d) in Biological Physics

Institute for Biological Physics

The University of Cologne is one of the largest and most research-intensive universities in Germany, offering a wide range of subjects. With its six faculties and its interfaculty centres, it offers a broad spectrum of scientific disciplines and internationally outstanding profile areas, supported by the administration with its services.

Bacteria are unicellular organisms, yet they can form structured communities called biofilms. Researchers in the Maier group (<https://biophysics.uni-koeln.de/>) study collective effects in biofilms combining tools from physics and microbiology. The specific research project focuses on horizontal gene transfer in biofilms and its role in the evolution of antibiotic resistance.

YOUR TASKS

- » Establish evolution experiments for characterizing the rate of gene transfer among clinical isolates of a bacterial pathogen
- » Use next generation sequencing for detecting gene transfer
- » Employ and improve data analysis programs
- » Use advanced microscopy and image analysis for visualizing gene transfer

YOUR PROFILE

- » Excellent MSc degree in physics, molecular biosciences, or related
- » Strong interest in interdisciplinary research
- » Expertise in at least one of the following fields: biological physics, programming, molecular cloning, or experimental evolution
- » Good communication skills are essential
- » Applicants should be highly motivated and independent

WE OFFER YOU

- » an interactive and supportive research environment
- » a diverse and fair working environment
- » support in reconciling work and family life
- » flexible working time models
- » extensive advanced training opportunities
- » occupational health management offers
- » local transport ticket at a discount for UoC employees

The position is available from 01.09.2021 on a part-time basis (65% /25,89 hours per week). It is limited until 31.08.2023 with possibilities for extension. If the applicant meets the relevant wage requirements and personal qualifications, the salary is based on remuneration group 13 TV-L of the pay scale for the German public sector.

The University of Cologne is committed to equal opportunities and diversity. Women are especially encouraged to apply and will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from people with disabilities / special needs or of equal status.

Please send your convincing application with proof of the sought qualifications by email (in one pdf-file) with reference number Wiss2106-04 to berenike.maier@uni-koeln.de. The application deadline is 04.07.2021.