

## PhD/PostDoc Position in Single-Molecule Microbiology at the University of Bonn

Are you in search of an interdisciplinary PhD or PostDoc opportunity that combines the domains of microbial cell biology and single-molecule biophysics? Our research group offers two stimulating research positions to explore the molecular life of microbial cells. We welcome and encourage applications from individuals with backgrounds in (micro)biology, chemistry, or physics who are interested in joining our dynamic and multidisciplinary laboratory. We currently offer both, a PostDoc and a PhD position, and will advertise until both positions are filled.

### Our research

Our group aims to understand the emergence and regulation of cellular life through molecular processes. To explore microbial cell biology, we employ a comprehensive range of methods, including molecular biology, biochemistry, bioanalytics, fluorescence microscopy, biophysics, and computational approaches. Our research encompasses working with diverse microorganisms, including well-established models such as *Escherichia coli* and *Schizosaccharomyces pombe*, as well as pathogens like *Yersinia enterocolitica* and extremophiles such as *Haloferax volcanii*. Notably, we employ quantitative microscopy, particularly single-molecule microscopy, as a key methodology to directly visualize and measure the interactions and functions of individual molecular players within the cellular environment *in vivo*. Observing molecular life as it happens enables us to gain essential and direct insights into the cell biology and physiology of microorganisms.

To access our published work, please visit [scholar.google.de/citations?user=n0527ZUAAAJ](https://scholar.google.de/citations?user=n0527ZUAAAJ).

### Work Environment

Located at the Institute of Microbiology and Biotechnology at the University of Bonn, our research group consists of scientists from various disciplines, including biology, chemistry, computer science, and physics. As an international group, our working language is English. The University of Bonn holds the title of a "University of Excellence," organizing its research profile into six Transdisciplinary Research Areas (TRAs) centered around Clusters of Excellence. These TRAs focus on addressing significant scientific, technological, and societal challenges and serve as spaces for exploration and innovation by bringing together areas of excellence and emerging fields. Bonn, the former capital of Germany, is situated on the banks of the Rhine River, bordering the Eifel and Siebengebirge regions. The city boasts a rich cultural heritage as the birthplace of Ludwig van Beethoven and the renowned Haribo gummy bears. Additionally, it hosts numerous national and international institutions, including e.g. the United Nations.

### Candidate requirements

We are seeking a creative, motivated, and results-driven candidate to join our research projects for their PhD/PostDoc. The successful applicant will gain expertise in current molecular biology techniques, advanced fluorescence microscopy, single-molecule methods, and quantitative data analysis. We offer a great flexibility in defining the exact research project, accommodating both technically and biologically focused candidates.

The applicant should have a Master's (for PostDocs PhD) degree in life sciences, natural sciences or technical sciences. Knowledge in the field of microbiology and/or some fluorescence methods is a plus. Experience with computational methods is helpful, as candidates will be expected to engage in computational work during their PhD/PostDoc. Candidates should bring a high degree of independence and possess strong time and project management skills. As our group members come from diverse scientific backgrounds, active engagement in interdisciplinary discussions and a genuine interest in other disciplines is essential for our group.

### How to apply

Please send an email to [endesfelder@uni-bonn.de](mailto:endesfelder@uni-bonn.de). Include a single PDF attachment containing your CV, a module overview of your studies, a one-page statement outlining your research interests, and the contact details of two references. We will commence reviewing applicants immediately and continue until the position is filled.