

Postdoc and PhD student positions in biochemical reconstitution and cell biology



MAX-PLANCK-INSTITUT
FÜR MOLEKULARE PHYSIOLOGIE

The Bird Lab (www.bird-lab.org) at the Max Planck Institute of Molecular Physiology (www.mpi-dortmund.mpg.de/en) is searching for highly motivated postdoc and PhD student candidates to join our group to study the molecular mechanisms of cellular regulation of microtubule dynamics.

Our Research

Precise control of microtubule dynamics and stability is critical for several cellular functions including chromosome segregation and cell division. Misregulation of microtubule stability during mitosis can result in chromosome missegregation and chromosomal instability, which can contribute to tumorigenesis. We have identified novel factors and pathways important for regulating microtubule stability in normal cells, while deregulated and impacting chromosomal instability in cancer cells. We are now seeking to reconstitute these factors and pathways in vitro using purified components for both structural studies and functional studies on microtubule stabilization. We are also defining the molecular mechanisms and regulation of these factors in time and space within cells, and the impact of their deregulation on chromosomal instability in the cancer context.

We employ a variety of techniques spanning biochemistry and cell biology to answer these questions, including protein purification and interaction/activity analysis, live cell fluorescence microscopy, and CRISPR/Cas9 and genome modification for genetic analyses. Often projects also involve active collaboration within the department and institute for structural studies and quantitative proteomics to answer specific questions.

We are an international and socially and intellectually engaging lab. The working language in the lab and institute is English

Your Qualifications

For all positions, a background and familiarity with molecular biology is required, although no specific experience with any technique is essential. Previous experience in fluorescence microscopy, mammalian cell culture, quantitative biochemistry, protein purification and/or cloning/DNA modification techniques is beneficial but not required. Most importantly, the applicant must be enthusiastic with a developed ability to work independently and think critically, as well as to read, interpret, and apply scientific literature to the project.

Postdoc candidates should have (or be submitting) at least one first-author publication in an international peer-reviewed journal. PhD candidates must meet the criteria as designated by the International Max Planck Research School in Chemical and Molecular Biology (IMPRS-CMB) (<https://imprs-cmb.mpg.de/>)

Our Offer

Postdoc: Salary will be according to TVöD for 2 years, with possibility for extension.

PhD Student: Salary will be based on the MPG Support of Junior Scientists Guidelines. The expected duration of a PhD is 3-4 years.

The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. Furthermore, the Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Application

To apply, please send

- a motivation letter (including a summary of previous research experience)
- a CV
- the names of at least 2 references that may be contacted directly via email to alex.bird@mpi-dortmund.mpg.de

