



## Doctoral researcher position (m/f/x) in Chromatin Dynamics in Cell Cycle

Biomedical Center Munich (BMC), LMU Munich

Group of Dr. Magdalena Murawska

### About us and the project:

DNA within our cells is tightly packed into nucleosomes, formed by small yet crucial proteins called histones. Histones don't act alone but they are assisted by specialized proteins known as histone chaperones, which assemble or disassemble histones into nucleosomes. This process is key to maintaining genome accessibility and stability. Alterations in histones and histone chaperone expression have been linked to various cancer types, where they likely play a critical role in the survival of highly proliferative cancer cells. Our lab is focused on studying histone chaperone complexes, highly conserved from yeast to humans, to understand chromatin dynamics across the cell cycle and their impact on cancer survival.

Recent, project-related publications from our lab include:

- Murawska and Braun, Trends Genet., 2022; DOI: 10.1016/j.tig.2022.02.011
- Murawska et al., Cell Rep., 2021; DOI: 10.1016/j.celrep.2021.109944
- Murawska et al., Mol Cell, 2020; DOI: 10.1016/j.molcel.2019.11.016

### Your tasks and responsibilities:

In this new DFG-funded project, you'll use **cutting-edge genomics, advanced microscopy, CRISPR and AI-assisted biochemistry** techniques to investigate how histone chaperone complexes impact genome folding and chromosome segregation during the cell cycle. We'll explore this in both the model organism fission yeast and human cancer cells. The insights gained from this project could reveal new molecular functions of histone chaperones, opening the door to novel anticancer therapies.

### Your qualifications:

- Excellent Master's degree in biology, biochemistry, genetics, molecular biomedicine, or similar
- Curiosity, passion about science, critical thinking skills, and an interest in chromatin biology and data analysis
- Ability of working both collaboratively with an international team and independently under the guidance of a Principal Investigator
- Proficiency in English (spoken and written) and excellent communication skills
- Willingness to learn data analysis with R and Python (with a help from collaborators and BMC Core Bioinformatics Facility) is a plus

### Benefits we offer:

- Fully funded 3-year PhD position (with a possibility for prolongation, TV-L scale)
- A dynamic, interdisciplinary and international research environment at BMC and Martinsried Campus
- Access to state-of-the art core facilities (bioinformatics, bioimaging, biophysics, FACS, genomics and proteomics)
- LMU Graduate Program for further professional and personal development
- People with disabilities who are equally as qualified as other applicants will receive preferential treatment

### How to apply:

Please submit the following documents as **one pdf file (max. 5MB)**:

- Motivation letter that explains why you want to work on this project and what qualifies you for this position (max. one page)
- CV (max. 2 pages)
- Academic transcripts and degree certificates
- Contact emails to two references familiar with your previous work

via email to: Dr. Magdalena Murawska, [magdalena.murawska@bmc.med.lmu.de](mailto:magdalena.murawska@bmc.med.lmu.de)

Application deadline: **4<sup>th</sup> of May 2025**