We are looking to support our rapidly growing team starting October 1, 2026:

Doctoral Researcher / PhD Candidate (f/m/x) – Proteostasis and Secretory Pathway Regulation

Biochemie - Institut für Biochemie II

TV-L: 25 h/week (64,94%)

Fixed-term employment for 36 months under the German Academic Fixed-Term Contract Act (WissZeitVG) for the purpose of pursuing a doctoral degree (PhD)

Your salary will be based on TV-L EG 13

Your tasks

Join our research team to investigate how cells maintain membrane protein homeostasis under conditions of stress and disease. The project combines cutting-edge cell biology, quantitative proteomics, advanced imaging, and genome engineering approaches to uncover novel mechanisms controlling secretion and protein quality control.

The successful candidate will investigate how the rhomboid intramembrane protease RHBDL4 and associated E3 ubiquitin ligases integrate cellular stress signals to regulate membrane protein homeostasis and secretory pathway capacity. Using human cell culture models and state-of-the-art biochemical, proteomic, genetic, and imaging techniques, the project aims to uncover how cells prevent the accumulation of defective membrane proteins and adapt their secretory capacity under proteotoxic stress conditions.

The candidate will analyze and present experimental data, contribute to scientific publications, and develop an independent research project within a collaborative and internationally oriented research environment.

Your future with us

We are one of the leading university hospitals in Germany and network research, teaching and health care at the highest level. That's why many things are a lot bigger for us: the spectrum of exciting development opportunities. The limitless openness with which specialists from all over the world work together here. Or our commitment as an employer to support all employees as best we can in reconciling their job with their goals and life situations.

This is the University Hospital of Cologne: Everything but ordinary.

Your future in detail

Cologne provides one of Europe’s leading environments for research on cellular stress responses, proteostasis, and aging-associated disease. The University of Cologne is one of the largest and oldest universities in Germany. Its broad spectrum of disciplines, internationally visible research profile, and central location make it an attractive destination for students and researchers from around the world.

Your profile

We are looking for a highly motivated PhD candidate holding a Master's degree in Biology, Biochemistry, Molecular Medicine, or a related discipline. Prior experience in mammalian cell culture, microscopy, molecular biology, or biochemical methods will be considered an advantage.

The successful candidate should demonstrate strong interest in cell biology and protein homeostasis, excellent communication skills, and enthusiasm for working in an international and collaborative research environment.

Our offer

- Strong mentorship and support towards the development into an independent scientist
- An excellent and international biomedical research environment
- A supportive, collaborative, and friendly atmosphere Access to state-of-the-art core facilities and interdisciplinary collaborations
- Salary according to the German salary scale TV-L in accordance with the Wissenschaftszeitvertragsgesetz (WissZeitVG)
- The position is initially offered for 3 years, with the possibility of extension

The Center for Biochemistry at the Faculty of Medicine and University Hospital Cologne comprises twelve research groups with a strong focus on modern molecular and cellular biomedicine. The center provides a vibrant and highly interactive scientific environment with close links to the Cologne Excellence Cluster on Cellular Stress Responses in Aging-Associated Diseases (CECAD), the Center for Molecular Medicine Cologne (CMMC), and multiple advanced core facilities.

The Lemberg laboratory at the Institute for Biochemistry II investigates mechanisms of protein homeostasis and secretory pathway regulation. A major focus of the laboratory is the rhomboid intramembrane protease RHBDL4 and its role in membrane protein quality control and ER-associated degradation. The advertised project builds on our recent discoveries identifying RHBDL4 as a central regulator of membrane protein quality control and secretion dynamics. The successful candidate will investigate how cells adapt their secretory capacity under stress conditions and how failures in these pathways contribute to disease-associated protein misfolding. The project builds on recent discoveries (Knopf et al., Nature Communications 2024) and related ongoing work.

Weekly joint lab meetings and journal clubs provide a stimulating yet supportive environment in which the successful candidate will broaden both theoretical and experimental expertise while developing independent scientific thinking. The institute offers an internationally competitive research environment with access to excellent infrastructure and core facilities. Our staff is international, and English is the working language of the laboratory.

Applications from female candidates are expressly welcome and will be given priority in the event of equal suitability, competence and professional performance. People with disabilities are welcome to apply and will be treated preferentially in the event of equal suitability and qualification.

Contact

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Application deadline: 12 July 2026

Job-ID: ddla70to

apply now

We look forward to receiving your application and getting to know you!