



Faculty of Mathematics and Natural Sciences

## PhD Position (f/m/x) Immune cell-tissue interactions

CECAD Uhlirova Lab of Development and Cancer

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

The Uhlirova Lab investigates the pleiotropic functions of the stress-inducible signaling pathways and downstream mechanisms orchestrating gene expression in the context of epithelial tissues and innate immune cells. We study how diverse stress signals modulate transcription factor and spliceosome activities during development and physiology and how malfunction of transcription and splicing machinery affects epithelial and immune cell behaviors and the interactions between the two systems during aging and disease. We combine functional genetics in *Drosophila* and mouse models with molecular and cell biology techniques, biochemistry, omic approaches, and advanced microscopy. For more information please visit the Uhlirova Lab website <http://www.uni-koeln.de/inter-fak/cecad/uhlirova/>.

### YOUR TASKS

- » To study the mechanisms governing the development and functions of the cellular branch of the innate immune system in health and disease.
- » To elucidate the mechanisms underlying immune cell-tissue interactions in homeostasis and disease states.
- » To study the crosstalk between transcription and splicing during innate immune system development and activation.
- » To investigate how spliceosome malfunction impacts hematopoiesis and innate immune cell responses during infection and inflammatory diseases.

### YOUR PROFILE

- » Master of Science or equivalent in Biology, Biochemistry, or Biophysics
- » Motivation, curiosity and creativity, and a strong ability for problem-solving through critical analytical thinking
- » Keen interest in the mechanisms of signaling and regulation of gene expression in development and disease
- » Ability to drive the project with a high degree of independence
- » Good communication skills, fluency in English, sense for teamwork and commitment to high-quality research
- » Strong background in genetics and molecular biology is essential
- » Experience with model organisms (e.g. *Drosophila*, mouse), imaging techniques, and knowledge of basic bioinformatics tools are welcome

### WE OFFER

- » Interactive and international research group with access to the state-of-the-art imaging, proteomic, lipidomic and genomic research facilities
- » A diverse working environment with equal opportunities
- » Support in balancing 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 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 Gender Equality Act of the State of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from people with disabilities / special needs or of equal status.

The position is available as soon as possible on a part-time basis (65%). It is limited to three years. If the applicant meets the relevant wage requirements and personal qualifications, the salary is based on remuneration group 13 TV-L on the pay scale for the German public sector.

### HOW TO APPLY

Please apply online with proof of the required qualifications

- » a Cover Letter describing your motivation to join our research group
- » your academic Curriculum Vitae, including your publication list
- » a statement on your scientific achievements, summary (1/2 page) of your Master Thesis project or equivalent
- » contact information for two references
- » copies of your degree certificates without a photo

Apply online at <https://jobportal.uni-koeln.de>.

The reference number is 2303-03.

The application deadline is 23.04.2023.

Please direct any inquiries and questions to

Dr. Eva Külshammer ([uhlirova-jobs@uni-koeln.de](mailto:uhlirova-jobs@uni-koeln.de))