

PhD Position_Molecular Biophysics, Homburg

The group of Dr. Dalia Alansary in the Niemeyer lab (Molecular Biophysics in Homburg, Germany) is announcing an open opportunity for a PhD position in an interdisciplinary translational project. This project is part of a collaborative consortium investigating “Mechanisms of Cardiovascular Complications in Chronic Kidney Disease” (<https://www.sfb-trr219.de/>). We are seeking motivated candidates that share our interest in understanding the molecular mechanisms underlying contribution of inflammatory cytokines to chronic renal and cardiovascular diseases. Particularly, we are motivated to implement our expertise and that of our collaborators to address how the interplay between calcium ions and reactive oxygen species regulate inflammatory processes triggering chronic kidney disease and potentially leading to progress of cardiovascular diseases. The PhD student will be able to learn and apply molecular biology approaches to modify candidate relevant genes and investigate their influence on the immune function and disease development which can be assessed by a broad spectrum of well-established functional readouts particularly relevant for immune cells.

Job Requirements and responsibilities

- Conducting experiments planned for project M-04 within the TRR219 consortium.
- Data analysis and presentation in regular internal group meetings as well as in regular meetings of the consortium.
- Actively participate in design of experiments and adjusting project plans according to obtained results.
- Standard good practice in the lab and maintenance of lab equipment.
- Data management
- Participate in publication of data in national and international meetings and preparation of project-related manuscripts.

Required academic qualification:

Applicants should have a Master’s degree (MSc) or an equivalent in biology, immunology, pharmacy or closely related disciplines.

Excellent spoken and written English skills are required while German language skills are only preferable.

Applicants are expected to:

- Have sufficient experience in standard molecular biology techniques. Experience in flow cytometry and microscopy is of an advantage.
- Have experience with sterile cell culture practice.
- Have basic knowledge about physiology of kidney, heart and immune system. Applicants with more specialized previous experience with the immune system and related methods (FACSsorting, ELISA) will be preferred.
- Be able to perform statistical evaluation of data
- Isolate organs and cells from experimental animals after receiving the necessary training in the lab.
- Critically analyze own data and consider the necessary controls for validation experiments.
- Actively participate in scientific discussions about own and other colleagues’ projects.
- Be a skilful user of standard data and text editing software (Word, Excel, Powerpoint etc). Applicants with skills in DNA, image and flow cytometry data editing software (e.g FIJI, FlowJo) are preferred.

What we can offer:

- Work on a clinically relevant project in an exciting and stimulating environment with close clinical collaboration and direct analysis of patient materials.
- Performance and analysis of animal models simulating kidney and heart diseases.
- Benefit from established collaboration



- Integration into a graduate school programme that offers tailored interdisciplinary training, scientific and social activities and a strong mentorship for future career development
- Access to state-of-the-art microscopy (TIRF, FRET, Confocal) with the necessary training
- Hands-on experience with cutting edge molecular biology approaches such as CRISPR-Cas9 mediated gene editing.
- A broad spectrum of biochemical and optical methods for studying protein-protein interaction.
- Intensive mentoring and training while allowing room for creativity and independent work.

How to apply?

We are looking forward to receiving your written application by **15.05.2022**. Applications should include your C.V., motivation letter and copies of your certificates. Including recommendation letters or suggested references is encouraged. Please send your applications to: dalia.alansary@uks.eu

