

PhD position in cancer immunotherapy – CAR-NK cells

The “**NK cell therapy**” research group at the Institute of Transfusion Medicine at the Faculty of Medicine Carl Gustav Carus, Technische Universität Dresden is seeking for a talented and highly motivated PhD student.

Starting as soon as possible.

Research focus:

Chimeric Antigen Receptor Natural Killer (CAR-NK) cells have proven efficacy against a variety of tumors. However, some cancer cells develop resistance against NK cell cytotoxicity leading to limited responses. This project will investigate the tumor escape mechanisms and develop genetic engineering-based strategies to overcome them.

Your role:

- For your PhD thesis you will systematically investigate the tumor escape mechanisms that may occur during NK cell or CAR-NK cell immunotherapy and you will develop novel solutions for NK cell-based therapies.
- You will analyze NK cells and tumor cells using multi-parameter flow cytometry and image-based cytotoxicity methods; use genetic engineering to generate novel CAR-NK cells; utilize CRISPR-Cas9 technology; apply next-generation sequencing and multi-omics approaches (transcriptomic, proteomics,...) and others methods.
- You do research under supervision of senior scientist but you perform your experiments and documentation independently.
- You are an active part of our cooperative lab culture and as well as national, international and industrial collaborations.
- You are expected to come with new ideas and shape your project.
- On a regular basis you thoroughly record your results and prepare project reports, which you present at internal group meetings.
- You are expected to publish your results in high-impact peer-reviewed scientific journals and present at recognized national and international conferences.

Your profile:

- You have a master's degree in Biology (or related) with excellent grades. Good knowledge of immunology is great advantage.
- Ideally, you already had scientific experiences in the field of immunology and with the techniques and methodologies including cell culture, flow cytometry, molecular cloning and other molecular biology techniques, cell assays, cytotoxicity assays, cell transduction or transfection, microscopy and others.
- Computational NGS data and downstream analysis with is beneficial.
- Solving biomedical questions sparks your interest.
- You bring a very good general scientific and technical understanding.
- You naturally show a diligent and focused work habit, you are efficient and goal-oriented.
- You demonstrate ample communication and collaboration skills and you display a talent for creative solutions.
- You are proficient in spoken and written English.

We offer:

- A challenging research project.
- Expertise in CAR-NK cell immunotherapy field.
- A position within a vigorous and inspiring professional environment promoted by an open culture and a spirit of community.
- Cross-border intercultural cooperation and short communication channels.
- A modern workplace and exciting opportunities in the development of technologies with a promising future.
- You will be part of SaxoCell community offering cell therapy workshops for young scientists as well as advanced trainings.
- Access to our state-of-the-art Core Facilities and their technical expertise.
- Membership in one of our PhD programs.
- Support in your next career steps.

Please send your application documents (cover letter, CV including photo, certificates including examination grades, two contacts of reference) until **15th April 2024** in one PDF document by email to:
Dr. Jiri Eitler: j.eitler@blutspende.de.

About our group: <http://www.etm-dresden.com/>

About SaxoCell: <https://www.saxocell.de>