Master Thesis in the field of engineering CARs for cancer immunotherapy

Location:
Vienna

Research area:
CAR T cell therapy

Working hours:
Full time / Internship

To strengthen our excellent research team, which is focused on the development and research of innovative approaches for the treatment of childhood cancer, we are looking for a master student (m/f/d). In this responsible role, you will have the unique opportunity to be part of a multidisciplinary competence center for pediatric oncology and to have a direct influence on the development of new cancer therapies.

In our recently launched **Christian Doppler Laboratory for Next Generation CAR T Cells** (https://christian-doppler.ccri.at/), which is an interdisciplinary collaboration project between Dr. Manfred Lehner at St. Anna Kinderkrebsforschung and Dr. Michael Traxlmayr at BOKU (Institute of Biochemistry), we want to develop a new generation of CAR T cells for safe and specific tumor eradication.

CAR T cell immunotherapy is one of the hottest topics in cancer therapy and has already shown groundbreaking success in therapy of previously incurable forms of leukemia. However, novel molecular tools for improving this type of immunotherapy are urgently needed for translating this success to other tumors.

The close integration of expertise in immunotherapy and protein engineering within our CD lab is the perfect basis to develop technologies for novel molecular switches and for CARs with AND-gate function. Our work has already resulted in several patent applications and publications (Zajc CU et al., PNAS 2020; Salzer B et al., Nat Comm 2020).

In the planned project, we want to further engineer and biochemically characterize molecular on-switches. The major part of this project will be conducted at the external module of the CD lab at BOKU (Institute of Biochemistry) to support our PhD student Elise Sylvander, who will supervise you together with Dr. Michael Traxlmayr and Dr. Manfred Lehner.

As a Master student, you will

- Join an exciting, multi-disciplinary environment with lots of support for your personal and professional development from your supervisor, team, and peers
- Learn to take on ambitious research in close collaboration with experimental and clinical researchers
- Contribute from the start including planning of experiments and data acquisition
- Provide thorough and creative thinking that makes the projects a success
- Monitor the literature and community resources to keep abreast latest developments and to identify information, data, and methods to integrate in your own work

Your profile

- Bachelor's degree in a relevant subject (e.g. biology, biochemistry, biomedical engineering, immunology)
- Excellent technical skills (e.g. biochemical analyses, protein expression, nucleic acid isolation)
- Experience (e.g. internships) in a relevant area is a plus
- Excellent verbal and written communication skills in English (German not required)
- Self-motivated, enthusiastic and eager to learn
- Good team player, commitment, and creativity
- Scientific mindset, problem solving attitude

Our offer

- A master thesis position for 10 months with the possibility of a prolongation to a maximum of 12 months
- An exciting project in a meaningful, inspiring, and international setting
- An outstanding working atmosphere in a strong team with excellent opportunities
- Access to state-of-the-art infrastructure
- Flexible working hours, excellent public transport connections and other great benefits
- Great location in the center of Vienna, a capital of biomedical research in Europe with excellent quality of life
- A monthly allowance of € 475,86

Who we are

The St. Anna Children's Cancer Research Institute (CCRI), located in the center of Vienna, the world's most livable city and one of Europe's most important places for biomedical research and life sciences, is an international and multidisciplinary competence center striving to improve treatment of children and adolescents with cancer by connecting translational and clinical research with open-minded exploration of basic disease mechanisms. Through close cooperation between clinic and research, the CCRI provides an ideal environment for cutting-edge research and its translation into clinical practice. To achieve our ultimate goal of advancing the well-being of patients, the CCRI constantly pushes scientific boundaries and strongly promotes close collaboration and exchange with external institutions like the Medical University of Vienna, CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, the Institute of Molecular Biotechnology of the Austrian Academy of Sciences (IMBA) and the Institute of Molecular Pathology (IMP).

The CCRI is an equal opportunity employer. We value diversity and are committed to providing a work environment of mutual respect to everyone without regard to ethnicity, religion, national origin, age, gender identity or expression, disability, or any other characteristic protected by applicable laws, regulations and ordinances.

Find more information here: https://science.ccri.at/ or https://kinderkrebsforschung.at/.

Your application

We are looking forward to your application! Applications should at least contain your Curriculum Vitae and a cover letter.

Apply now