

2 Master of Science Thesis Positions

for 9-12 months (start: spring 2023)

in the **laboratory of Prof. Dr. Burkhard Becher**, Institute of Experimental Immunology, University Zurich

Supervisor: Dr. Stefanie Kreutmair

Research Topic:

Immune profiling of Acute Myeloid Leukemia and Immune Cells to investigate Immune Escape Mechanisms

Immunotherapies in solid cancer represent a success story, but this is not yet the case for Acute Myeloid Leukemia (AML). This study aims to uncover stratifying immune signatures in AML in order to move from a “one-size-fits-all” chemotherapeutic approach with variable outcomes towards personalized immunotherapy. We use novel cutting-edge multi-omics and algorithm-guided analysis based on single-cell techniques to gain fundamental insights into cancer and immune cells. The prospective candidates will have the opportunity to investigate the immune/ AML landscape, which is clinically highly relevant and urgently needed to improve the patients’ outcomes. The tasks will be a mixture of wet and dry lab, depending on the sub-project. Each student will be responsible for a specific subproject.

Aims:

- Adapt/ establish methodological approaches (f.e. high-dimensional flow panel)
- Characterize the immune landscape in the blood and bone marrow of AML patients
- Identify stratifying immune signatures/ biomarker for patients’ outcome

We offer:

- Translational research project linking basic immunological and clinical research
- A highly dynamic young and international team in a thriving research environment in the Institute of Experimental Immunology at the University Zurich
- Cutting-edge equipment (Spectral flow cytometer etc.)
- Weekly group meetings, journal flow, seminars

Requirements:

- Genuine interest in immunological research
- High motivation
- Experience in flow cytometry (FlowJo) and programming skills (R studio) are a plus

Applications:

Applications (English/ German) should include a CV containing a brief statement of research experiences.

Please send your application to: kreutmair@immunology.uzh.ch