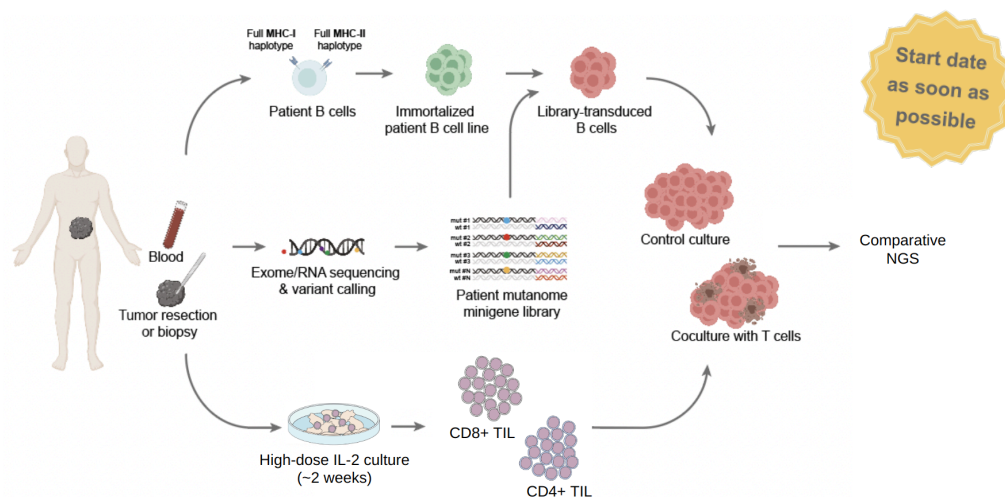


Master's Thesis Opportunity in Molecular Medicine: Adoptive Cell Therapy and T-Cell Epitope Recognition (computational)

Are you passionate about cutting-edge cancer research and bioinformatics? Join our research group for a **Master's Thesis in Molecular Medicine**, focusing on **Adoptive Cell Therapy!**



The Challenge:

Adoptive cell therapy involves enriching and reinfusing T-cells into cancer patients, but identifying which T-cells target specific cancer-related neoantigens remains a "black box." In research with our experimental collaborators, we sequence cancer patients' genomes to identify potential neoantigens and T-cell receptor (TCR) sequences. These neoantigens are then tested in a **co-culture system** with T-cells harboring patient-specific TCRs, allowing us to understand which neoantigens are recognized and eliminated by which T-cells.

Your Role:

We are a **bioinformatics-focused research group** using the **R programming language** to develop tools that analyze data from these co-culture experiments. The goal of this Master's thesis project is to **further develop and optimize these tools** to analyze and interpret the intricate relationships between neoantigens and TCRs, contributing to advancements in personalized cancer therapies.

What You'll Gain:

- Hands-on experience with **bioinformatics** and **cancer immunotherapy**.
- Develop skills in **R programming** and **data analysis** for immunological applications.
- Contribute to the advancement of **precision medicine** in cancer treatment.

If you're excited to bridge the gap between cancer immunology and bioinformatics, please contact Asst. Prof. Michael Schubert (m.schubert@i-med.ac.at) stating your background, skills, and when you are planning to work on your thesis project!