

Harnessing tissue residency modules for cell-based therapies

In this project, we are conducting research on the function and development of immune cells, aiming to improve immune cell-based therapies in the long term. We plan on focusing on regulatory T (Treg) cells, a specialized immune cell population which keeps the immune system in balance by suppressing excessive or misdirected immune responses and preventing autoimmune diseases.

We want to discover differences in the gene programs between blood and tissue-resident Treg cells and identify the immune Treg cell populations which are involved in tissue regeneration. By gaining a deep understanding of these tissue-regenerating T cell populations, we aim to specifically induce them in blood-derived T cells by using a variety of different cytokines, alarmins and growth factors. Finally, we want to evaluate these induced tissue Treg cells for their potential in regenerative medicine.

Data protection relevant: Information about your age and sex will be required. Parts of your genetic material will be sequenced.

Specific research project: "Analysis of Immune cells in the blood" (Ethics vote 25-4062-101)

Cooperation with other institutions:

University Hospital Regensburg

Project leader:

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