

Mechanisms of Immune Cell Development and Function

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. To better understand the function and development of immune cells, we seek to identify and analyze mechanisms and signaling pathways involved in these processes. It is crucial to not examine these processes only in isolation, but also consider potential external signals from the immune cell environment (e.g., contact with other cells, available nutrients, drugs, or other active substances), which we provide in our experiments.

Additionally, we will explore the function of various genes by manipulating them in the context mentioned above. In this way, we aim to understand how our immune system is impacted or promoted in its development and function under different conditions, and which genes are particularly relevant for these processes. We further will introduce synthetic genes into the immune cells that helps them to recognize and combat for example tumor cells. Through this research, we hope to find ways to positively influence the function of immune cells and apply this knowledge to immunotherapeutic approaches.

Data privacy considerations:

Information about your age and gender will be required. Parts of the genome will be sequenced.

Specific research project: "Signal-dependent Development and Function of the Immune System" (Ethics approval: 19-1414-101)

Collaborations with other institutions:

University Hospital Regensburg

Project Leader:

Dr. Christian Schmidl

LIT – Leibniz Institute for Immunotherapy
c/o Universitätsklinikum Regensburg
Franz-Josef-Strauß-Allee 11
93053 Regensburg