

Nov  
26<sup>th</sup>  
2024

4:00PM CET  
VIRTUAL

iPSZÜRICH

A Lecture Series Focused on Induced Pluripotent Stem Cells



MHH

Hannover Medical School

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## FROM REGENERATIVE MEDICINE TO ANTI-CANCER THERAPIES: iPSC-DERIVED IMMUNE CELLS

Current advancements in gene and cell therapies are transforming modern medicine, offering new therapeutic options for a wide range of patients. My research is aligned to the immense potential and necessity of stem cell research for the advancement and enhancement of human health and well-being. Stem cells possess the unique ability to differentiate into various cell types, providing unparalleled opportunities to repair and regenerate damaged tissues and organs. The diverse capabilities of stem cells are highly fascinating, serving as a beacon of hope for millions of patients suffering from chronic and debilitating diseases. In this context, stem cell research is pivotal in drug development and testing. Traditional drug testing methods often face limitations due to interspecies variations, leading to ineffective or harmful results when transitioning to human trials. Stem cell-derived human cells offer a more accurate and reliable model for testing new drugs, significantly reducing the risks and costs associated with drug development. I have been developing unique technologies to derive human immune cells from iPSC cells. These advancements contribute to the development of novel cell-based therapies and innovative bioassays, increasing outputs in the field of pharmacology. In my overview talk, I will provide novel insights into the intermediate scale production of different immune cells from human induced pluripotent stem cells (iPSC) and will showcase the application of these cells by developing novel cell-based immunotherapies.

