A warm welcome! New Professor Dr. Stefan Tenzer

HI-TRON Mainz welcomes Prof. Dr. Stefan Tenzer. Dr. Tenzer joins the HI-TRON Mainz with a focus on Immunoproteomics. His research focuses on the development and optimization of mass spectrometric workflows and associated the bioinformatic tools for individualized tumor immunotherapy and diagnostics and investigate the tumor microenvironment and its impact on immune cell function.

We welcomed him with three questions right at the start.

1) Why do you want to work at HI-TRON Mainz and what attracts you to the Mainz site?
HI-TRON offers an ideal translational research environment at the intersection of basic oncological and immunological research and clinical application. Here, I am particularly attracted to actively participate in the conception and implementation of a transregional integrated research platform for individualized cancer immunotherapy and to develop new strategies and concepts for individualized therapeutic strategies based on individual molecular and immunological characteristics of the cancer and the patient. Through my previous work at the University Medical Center Mainz, I am perfectly integrated into the local research environment and look forward to the clinical translation of new immunotherapy concepts and the establishment of innovative biomarker platforms in close collaboration with partners from University Medicine, DKFZ and industry.

2) What is your research focus?
The main focus of my work is the development and optimization of mass spectrometric workflows and associated the bioinformatic tools for quantitative proteome and immunopeptidome analysis. Our optimizations enable the highly sensitive analysis of complex proteomes based on starting amounts in the lower microgram range. I successfully use this technology in the context of my own basic science and clinical translational projects, and make it available to other scientists in the framework of collaborative projects. The successful interdisciplinary collaboration with other research groups and departments thus represents a core aspect of my scientific activities. Within HI-TRON, we develop innovative LC-MS-based methods for the identification of biomarkers for individualized tumor immunotherapy and diagnostics, identify novel targets for individualized immunotherapy, and investigate the tumor microenvironment and its impact on immune cell function.

3) What did you do before?
After my PhD in the group of Prof. Hans-Georg Rammensee at the Interfacultary Institute for Cell Biology and Immunology at the Eberhard-Karls-University of Tübingen, I established my research group and the associated Core Facility for Mass Spectrometric Proteome Analytics at the University Medical Center Mainz, which I successfully developed to international visibility since my appointment to the W2 professorship for Quantitative Proteome Analytics in 2016. Since March 2020, I coordinate the Mainz Research Core "DIASyM" - one of four "Research Cores for Mass Spectrometry in Systems Medicine". DIASyM is funded by the German Federal Ministry of Education and Research (BMBF) with an initial budget of 8.8 million euros between 2020 and 2023 and integrates research groups from the university and university medicine with internationally recognized expertise in epidemiology, mass spectrometry and (bio)informatics. By applying a systems medicine-oriented approach, DIASyM establishes new methods that enable a deeper understanding of the pathophysiology of heart failure.