



Leibniz-Institut für Analytische
Wissenschaften – ISAS – e.V.

Dortmund

COLLOQUIUM

**Biomarker Immunoassays in Multiplex and their Application
in Preclinical and Clinical Research**

Speaker:

Dr. Thomas O. Joos,

NMI Natural and Medical Sciences Institute at the University of
Tübingen, Deputy Managing Director, Reutlingen

Place:

ISAS Campus, Otto-Hahn-Straße 6b, Lecture Hall
44227 Dortmund

Thursday, May 19, 2022 - 1 pm

Contact:

Prof. Dr. Albert Sickmann

Biomarker Immunoassays in Multiplex and their Application in Preclinical and Clinical Research

Multiplexed assay systems allow the analysis of hundreds of molecular parameters in a single experiment. Within the last decade protein microarray technologies achieved robust analytical performance and enable to screen for a multitude of parameters using minimal amounts of sample material.

There are a variety of technologies and methods available to address assay requirements in terms of covering analyte concentration, sample variety and sample origin. An overview of classical and emerging immunoassays ranging from sandwich-, mass spectrometry-, bead array-, and digital array-based immunoassays will be presented. Advantages of the different methods will be demonstrated by addressing biological issues for serological screening approaches, drug-induced organ injury, and oncology.

CV:

Dr. Thomas Joos joined 1998 the NMI at the University of Tuebingen heading the department of biochemistry. Since 2013 he is the deputy managing director of NMI. His research is focused on miniaturized multiplexed immunoassays for biomarker research and diagnostic applications.

Dr. Joos studied Biochemistry at the University of Tübingen. He performed his Ph.D. degree in 1995 on integrin- α 5 during early embryogenesis of *Xenopus laevis* in the laboratory of Prof. Peter Hausen at the Max-Planck-Institute of Developmental Biology.

Dr. Joos is a member of the editorial board of Drug Discovery Today, Proteomics, Clinical Proteomics and Expert Review of Proteomics.

Dr. Joos is co-founder of SIGNATOPE, Reutlingen, Germany, a protein biomarker company offering assay development and screening services for any protein in any species and he is co-founder of ASC Oncology, Buch, Germany, offering “Reverse Clinical Engineering” technology to support patients and physicians to ensure a better and more effective cancer treatment.