

BioRN Lounge with: Steffen Rupp, Fraunhofer [IGB, Stuttgart](#)

Topic: *“Innate Immunity in 3D-Infection models: From simple Screening Systems to complex Immune Cell supplemented Skin Models”*

May 15, 2018, 7pm

At the restaurant Urban Kitchen, Poststr. 36/5 in Heidelberg

Register by emailing to Sibylle Geilenberg: sg@biorn.org



Prof. Dr. Steffen Rupp

About:

The presentation will cover the generation of simple cell-based screening systems and their integration into complex tissue models generated from several primary and/or immortalized human cell types, including immune cells. Recent results from these 3D-models in the elucidation of cellular communication for activation of effective defense mechanisms in the presence of microbial pathogens will be presented.

Speaker: Prof. Dr. Steffen Rupp, Fraunhofer IGB, Stuttgart

The Department of Molecular Biotechnology contains four research groups which are active in several areas, including Host-Pathogen interaction and development of anti-infectiva, Molecular Diagnostics, and cell line and strain development for pharmaceutical and industrial biotechnology. My personal focus is on host-pathogen interaction of the pathogenic yeasts *C. albicans* and *C. glabrata*. Here we use complex 3D models of infection with components of the immune system to analyze the molecular pathways required for colonization and invasion of the host by *Candida* spp.. From these results we aim at new approaches for drug development. We furthermore develop new diagnostic methods based on nucleic acid technologies (diagnostic DNA-microarrays, development of biomarkers via NGS-based approaches, and NGS based diagnostics) or cell-based assays based on immune receptors.



Professional Career

4/2015 – present	Deputy Director of Fraunhofer IGB
1/2006 – present	Head of the Department of Molecular Biotechnology, Fraunhofer IGB
4/2004 – present	Lecturer at the Faculty of Energy-, Process and Bio-Engineering at the University of Stuttgart
1999 – 2005	Young research group leader “Automated Protein Screening Systems” at the Fraunhofer IGB
1995 – 1998	Research fellow at the Whitehead Institute for Biomedical Research, MIT, Cambridge USA

Scientific Career

5/2015 – present	Apl. Professor for Molecular Biotechnology, University of Stuttgart
2000 – 2004	Habilitation at the University of Stuttgart Thesis: »Signal-transduction mechanisms required for morphogenesis and pathogenesis of yeasts«
1990 – 1994	Doctorate at the Institute of Biochemistry , University of Stuttgart Thesis: »Elucidation of the activation cascades of vacuolar proteases in Saccharomyces cerevisiae«
1990 – 1991	Diploma thesis, University of Stuttgart
1986 – 1987	Master of Science in Chemistry, University of Cincinnati, OH, USA
1982 – 1990	Studies in Chemistry, University of Stuttgart

Awards and Accomplishments

September 2005	Research Award from the DMykG for Medical Mycology
April 2004	Habilitation in the field of Biochemistry at the University of Stuttgart
1995-1997	Research Fellowship from the German Research Foundation, DFG
1990	PhD Scholarship from the Ministry of Science, Research and the Arts, Baden Württemberg