

Schedule for Lectures of the Summer School “Molecular Interactions at Barriers in Inflammation”

Theoretical part of the summer school in Lübeck, Audimax lecture hall 4, 06/08/12 – 10/08/12

Monday, 06/08/12 Immune Response in Inflammatory Diseases Chair: Jörg Köhl

Time	Speaker	Title
8:30-08:40	Jörg Köhl	Introduction
8:40-09:30	Jörg Köhl	Complement as an immune sensor and regulator of innate and adaptive immune responses
9:30-10:20	Claudia Kemper	New concepts in human Th1 regulation by innate signals
10:20-10:50	Coffee Break	
10:50-11:40	Peter Zipfel	A lesson learned from pathogenic microbes -complement and innate immunity control homeostasis
11:40-12:30	Norbert Reiling	When the WNT blows.... Novel functions of an evolutionarily conserved signaling system in the regulation of inflammation
12:30-14:00	Lunch	
14:00-14:50	Tamas Laskay	Neutrophil granulocytes: The contribution of cell death to antimicrobial defense and to the resolution of inflammation
14:50-15:40	Björn Rabe	IL-6 Signaling pathways
15:40-16:00	Coffee Break	
16:00-16:50	Rudolf Manz	The multiple roles B cells play for induction and suppression of inflammation
16:50-17:40	Marc Ehlers	Antibodies: subclasses, effector functions and sugars
17:40-18:30	All speakers, panel discussion with students: “Emerging concepts in immunoregulation of inflammation at barrier organs”	

Tuesday, 07/08/12 The Microbiome in Environment and Evolution Chair: Thomas Bosch

Time	Speaker	Title
9:00-09:10	Thomas Bosch	Introduction
9:10-10:00	Thomas Roeder	How Drosophila epithelia control microbial communities
10:00-10:30	Coffee Break	
10:30-11:20	Juris Grasis	Towards understanding the evolution of host-virus interactions
11:20-12:40	John Baines	Evolutionary and ecological forces shaping diversity in the intestinal microbiota
12:40-14:00	Lunch	
14:00-14:50	Philip Rosenstiel	Genome-genome interactions at the intestinal barrier
14:50-15:40	Hinrich Schulenburg	Experimental evolution as a tool to dissect the dynamics and genomics of host-parasite interactions
15:40-16:30	Irina Majul	Human microbiome and evolution of small GTPases and their regulators
16:30-18:30	Poster Session with Coffee Break and Snack	

From 19:30 Public Evening Lecture with Thomas Bosch: Living in a Microbial World

Wednesday, 08/08/12 **Host-Pathogen Interaction**

Chair: Lars Redecke

Time	Speaker	Title
8:30-08:40	Rolf Hilgenfeld	Introduction
8:40-09:30	Nicole Fischer	Virus hunting using array and sequencing technologies
9:30-10:20	Albrecht von Brunn	Applying systems biology to virus-host interactions
10:20-10:50	Coffee Break	
10:50-11:40	Jan Rupp	Imaging of host-pathogen metabolic activities in living cells
11:40-12:30	Thomas Peters	Identification and characterization of virus-receptor interactions using NMR experiments
12:30-14:00	Lunch	
14:00-14:50	Norbert Tautz	Deregulation of viral replication in lethal mucosal disease?
14:50-15:40	Guntram Graßl	How Salmonella breaches the barrier and causes disease
15:40-16:00	Coffee Break	
16:00-16:50	Ulrich Schaible	The cell biology of intracellular bacterial infections with a focus in tuberculosis
16:50-17:40	Stefan Ehlers	The granuloma in tuberculosis: a host-pathogen collusion
17:40-18:30	Christoph Hölscher	Alternatively activated macrophages: the exit route for tubercle bacilli?

Thursday, 09/08/12 **Lipidomic-Sphingolipid Signaling in Health and Disease** **Chair: Ulrich Schaible**

Time	Speaker	Title
8:30-08:40	Ulrich Schaible	Introduction
8:40-09:30	Monica Palmada	Sphingolipid involvement in infectious diseases
9:30-10:20	Kathleen Reiss	The role of acid sphingomyelinase in sepsis and acute respiratory failure
10:20-10:50	Coffee Break	
10:50-11:40	Dieter Adam	Regulation of necroptosis and lysosome size via acid and neutral sphingomyelinase
11:40-12:30	Stefan Schütze	Compartmentalization of ceramide production in tumor necrosis factor receptor-1 signaling
12:30-14:00	Lunch	
14:00-14:50	Martin Krause	Airway epithelial injury in mechanical ventilation
14:50-15:40	Otto Holst	Structure and function of certain bacterial glycolipids
15:40-16:00	Coffee Break	
16:00-16:50	Konrad Sandhoff	Sphingolipid catabolism and the lipid phase problem
From 17:00	Barbecue and get together with all speakers	

Friday, 10/08/12 **Molecular Processes in Inflammation and Infection** **Chair: Andreas Tholey**

Time	Speaker	Title
8:30-08:40	Andreas Tholey	Introduction
8:40-09:30	Andreas Tholey	Proteomics in host-pathogen interactions
9:30-10:20	Rolf Hilgenfeld	Structural systems biology of virus-host interactions
10:20-10:50	Coffee Break	
10:50-11:40	Thomas Gutschmann	Membrane biophysics in infectious disease
11:40-12:30	Buko Lindner	Lipidomics, a new analytical tool for the characterization of molecular processes in inflammation and infection
12:30-14:00	Lunch	
14:00-14:50	Ulrich Zähringer	Glycolipids and NMR: Friends or Foes?
14:50-15:40	Peter König	Multiphoton microscopy to visualize host pathogen interaction
15:40-16:00	Andreas Tholey	Conclusion