

# Symposium "Infection Biology and Natural Products: Challenges and Opportunities"

**Tuesday, 25 June 2024**

13:30 Registration and poster mounting

14:00 Welcome Address

## **Session I: Natural Products: From Screening to Therapy**

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14:15 **Keynote lecture I**  
Olivier Potterat, Department of Pharmaceutical Sciences, University of Basel,  
Switzerland  
**"Library-Based Discovery of Bioactive Natural Products"**

14:45 **Nica Classen** - Institute for Pharmaceutical Biology and Phytochemistry, University of Münster  
**"Immuno Thermal Shift Assay - From Drug Development towards Diagnostic Applications"**

15:00 **Leon Kemper** - Institute for Pharmaceutical Biology and Phytochemistry, University of Münster  
**"Fenugreek Seed Extract with Antiadhesive Properties against *Campylobacter jejuni*"**

15:15 **Maria Laura Darido** - Institute of Molecular Virology, University of Münster  
**"*In silico* and *in vitro* Insights of Novel Synthetic Compounds Developed from a Brazilian Chemo Library Based on Plant-Derived Coumarins"**

15:30 **Keynote lecture II**  
Thomas J. Schmidt, Institute of Pharmaceutical Biology and Phytochemistry,  
University of Münster  
**"*Arnica*: Traditional European Herbal Medicine as New Therapy for Cutaneous Leishmaniasis, a Neglected Tropical Disease"**

16:00 *Poster session | Coffee break*

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## Session II:

### Host-virus Interaction and Antiviral Approaches

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- 17:00 **Fernão Braga** - Laboratório de Fitoquímica, Faculdade de Farmácia, Universidade Federal de Minas Gerais, Brazil  
**"Exploring the Antiviral Activity of Natural Products and Derivatives Against Prevalent and Emerging Viruses"**
- 17:15 **Sriram Kumar** - Institute of Molecular Virology, University of Münster  
**"Therapeutic Potential of Recombinant Formulations of Human IFN- $\alpha$  Subtypes against Respiratory Viruses"**
- 17:30 **Aileen Faist** - Institute of Molecular Virology, University of Münster  
**"Inhibition of p38 MAPK as Therapeutic Approach against Hyperinflammatory Virus Infections"**
- 17:45 **Nicole Oberberg** - Institute of Molecular Virology, University of Münster  
**"Role of the 90 kDa Ribosomal S6 Kinases (RSK1-3) during the Influenza A Virus Replication Cycle"**
- 18:00 **Keynote lecture III**  
**Ulrike Protzer, Institute of Virology,**  
**Technical University of Munich**  
**"HBV-Cure by Stimulating Adaptive Immunity"**
- 18:30 *Get Together*  
*Medicinal Plant Garden*  
*IPBP, Correnstraße 48*  
*48149 Münster*

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Wednesday, 26 June 2024

## Session III:

### Characterization of Microbial Pathogens and Microbial Pathogenesis

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- 09:00 **Keynote lecture IV**  
Cynthia Sharma, Institute of Molecular Infection Biology, University of Würzburg  
"Small RNAs and Small Proteins in Stress Response and Virulence Control of Pathogenic Epsilonproteobacteria"
- 09:30 **Petya Berger** - Institute of Hygiene, University of Münster  
"The Role of RpoS in *E. coli* O104:H4 Gene Expression"
- 09:45 **Michael Berger** - Institute of Hygiene, University of Münster  
"Virulence of Enterohemorrhagic *Escherichia coli*: Is it all about the Phage?"
- 10:00 **Anna Kerwien** - Institute of Infectiology, University of Münster  
"Expression and Activation Control of the Type VI Secretion System Machinery in *Yersinia pseudotuberculosis*"
- 10:15 **Theresa Karagöz** - Institute of Infectiology, University of Münster  
"Immune Modulating Activities of the Cell-Penetrating *Shigella* Effector Protein IpaH7.8"
- 10:30 *Poster session | Coffee break*

## Session IV:

### In Search for Novel Therapeutic Options

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- 11:30 **Keynote lecture V**  
Harald Groß, Department of Pharmaceutical Biology, University of Tübingen  
"Uridyl Peptides Reloaded - New Insights into the Investigation of this Promising Class of Antibiotics"
- 12:00 **Tobias Grebe** - Institute of Medical Microbiology, University of Münster  
"C5a Receptor Antagonists Compete with the Cytotoxic Effects of *Staphylococcus aureus* Panton Valentine Leukocidin"
- 12:15 **Jasmin Jakob** - Institute of Molecular Virology, University of Münster  
"Zapnometinib as a New Antibacterial Compound Targeting Cell Division of *Streptococcus pneumoniae*"

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12:30 **Johannes Eble** - Institute of Physiological Chemistry and Pathobiochemistry, University of Münster  
"Snake Venom Components Prevent Platelets from Being Hijacked by Tumor Cells"

12:45 **Keynote lecture VI**  
**Heike Brötz-Oesterhelt**, Department of Microbial Bioactive Compounds, Interfaculty  
Institute of Microbiology and Infection Medicine, University of Tübingen  
"Elaborate Mechanisms of Natural Product Antibiotics"

13:15 Poster session, Lunch break

## Session V: New Concepts and Methods

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14:15 **Keynote lecture VII**  
**John McKinney**, Laboratory of Microbiology and Microtechnology, Swiss Federal  
Institute of Technology, Lausanne, Switzerland  
"Microengineered Modes of Urinary Tract Infection"

14:45 **Janina Treffon** - Institute of Hygiene, University of Münster  
"Establishing a Human *in vitro* 3D Gut-on-a-Chip Model to Study Enterohemorrhagic  
*Escherichia coli* Infections"

15:00 **Mattis Irle** - Institute of Hygiene, University of Münster  
"Novel Sex-pilus-specific Bacteriophages Reduce Plasmid Carriage and Transfer *in vitro*"

15:15 **Ursula Rescher** - Institute of Molecular Virology, Cellular Biochemistry, University of Münster  
"Old Dogs and their New Tricks - Harnessing Pattern Recognition Receptors to Control  
Inflammation"

15:30 **Keynote lecture VIII**  
**Michael Meyer-Hermann**, Helmholtz Centre for Infection Research, Braunschweig  
"Increasing Antibody Diversity by Antibody Feedback"

16:00 Closing remarks, Farewell