

- 11.00 Coffee break
- 11.30 **Drug development of reversible covalently interacting protease inhibitors by means of QM, QM/MM and QM/MM MD**  
Bernd Engels, Würzburg
- 11.55 **Structural studies and inhibition of human furin**  
Manuel Than, Jena
- 12.20 **Proteomic analysis of cellular proteolysis: Biomedical applications**  
Oliver Schilling, Freiburg
- 12.45 **It's make or break: Meprin metalloproteases induce collagen assembly in fibrosis metalloproteases**  
Christoph Becker-Pauly, Kiel
- 13.10 Lunch
- 14.00 **Bioactive natural products from sponge-associated actinomycetes**  
Usama Ramadan Abdelmohsen, Würzburg
- 14.25 **Structure elucidation and total synthesis of bioactive natural products**  
Till Opatz, Mainz
- 14.50 **Who guards the guardians - New role for (matrix)-metalloproteinases in the context of immunologic regulation**  
Sven Fridrich, Mainz
- 15.10 **Taspase 1: A protease with still unresolved depth**  
Désirée Wunsch, Mainz
- 15.30 End of the meeting



Geb. 102/ EG H1-404, großer Hörsaal der HNO-Klinik

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December 13 & 14, 2013

## ChemBioMed III - Disease Relevant Proteases

**Ligands from Nature and from  
Rational Design**

Unser Wissen für Ihre Gesundheit



UNIVERSITÄT**medizin.**  
MAINZ

December 13 & 14, 2013

# ChemBioMed III - Disease Relevant Proteases

Dear colleagues,

proteases play critical roles in numerous physiological and pathological conditions, including inflammation, viral infections, blood clotting disorders, neurological diseases, and cancer. Therefore, proteases are not only of academic and clinical interest, but also important drug targets for the pharmaceutical industry.

In this respect, natural products have been a source for important drugs for many years. Albeit their chemical complexity poses significant challenges regarding synthesis, it is this complexity, which also confers unique biological properties. To more successfully exploit this reservoir in the future interdisciplinary collaborations are needed.

Consequently, we invited a number of excellent speakers who will present lectures covering innovative targets, assay development and screening technologies and new compounds with activity in pre-clinical models or early clinical trials. The meeting addresses researchers from different scientific areas - medicine, chemistry, pharmacology, biology, chemoinformatics - sharing an interest in the interdisciplinary field of protease research and "Chemical BioMedicine".

We hope that as in our past symposiums, we will be able to bridge the gap between basic research and clinical application.

We are very happy to invite you to join us in Mainz for our transdisciplinary symposium.

With best regards,

Tanja Schirmeister, Roland Stauber, Walter Stöcker

## Friday, December 13th

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- 12.00      **Welcome-Lunch**
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- 13.00      **Welcome**  
Roland Stauber
- 13.15      **Systems pharmacology: An integration of cell and computational biology for drug discovery**  
Eugenio Fava, Bonn
- 13.40      **New ways to inhibit enzymes by protein surface binding - A case study with  $\beta$ -tryptase**  
Carsten Schmuck, Duisburg-Essen
- 14.05      **Azapeptide nitriles as inhibitors of human cathepsins**  
Michael Gütschow, Bonn
- 14.30      **European lead factory: An open innovation approach to drug discovery**  
Dimitrios Tzalis, Dortmund
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- 15.00      **Coffee break**
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- 15.30      **Myxobacteria - Natural compounds, mechanisms, enzymes**  
Carsten Volz, Saarbrücken
- 15.55      **Fungal secondary metabolites - Highly diverse compounds as lead structures in pharma and agrochemical research**  
Eckardt Thines, Mainz

- 16.20      **Functional and structural constraints involved in coronavirus 3C-like protease-mediated polyprotein processing**

John Ziebuhr, Gießen

- 16.45      **Medicinal chemistry of dengue virus protease**  
Christian Klein, Heidelberg

- 17.10      **Phosphinic peptide inhibitors as tools to probe zinc-metalloprotease function: Past and future**

Vincent Dive, Paris

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- 19.00      **Excursion and dinner  
Kupferbergterrassen**
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## Saturday, December 14

- 09.15      **Exploiting nature's rich source of proteasome inhibitors as starting points in drug development**  
Michael Groll, München
- 09.40      **Potent and specific peptide inhibitors of human matriptase by design and evolution**  
Harald Kolmar, Darmstadt
- 10.05      **Regulation of foamy virus protease by viral RNA-Gag p71/p68 cleavage is required for template switch of reverse transcriptase**  
Jochen Bodem, Würzburg
- 10.30      **Argyirin F- A new type of proteasome inhibitor for the treatment of solid tumors**  
Nisar Malek, Tübingen