

Deutsche  
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**DFG**



# Leopoldina Symposium on Lipid Signalling



**4<sup>th</sup> to 6<sup>th</sup> September, 2008**

Paul Ehrlich-Lecture Hall, Building 22  
Klinikum der Goethe-Universität  
Frankfurt am Main  
Germany

**Preliminary PROGRAM**

## **Thursday, September 4<sup>th</sup>, 2008 afternoon**

- From 11.00 a.m. Registration**
- 3:00 p.m. Josef Pfeilschifter, Goethe-Universität, Frankfurt, Germany**  
Welcome
- Detlev Drenckhahn, Senator of the Leopoldina, Universität Würzburg, Germany**  
Greetings of the German Academy of Sciences Leopoldina
- 3:15 pm Scharrer-Ceremony:**  
Background and history of the Scharrer-Medal  
(Horst-Werner Korf, Goethe-Universität, Frankfurt, Germany)  
Laudation  
(Josef Pfeilschifter, Goethe-Universität, Frankfurt, Germany)
- 3:40 – 4:25 p.m. Sarah Spiegel**  
**Recipient of the Ernst und Berta Scharrer Medal 2008**  
**Virginia Commonwealth University, Richmond, USA,**  
Key note lecture:  
Signalling by sphingosin-1-phosphate
- 4:25-4:45 p.m. Refreshments**
- 4:45 – 6:15 p.m. Session 1: Bioactive Sphingolipids**  
Chair: Josef Pfeilschifter, Goethe-Universität, Frankfurt, Germany
- 4:45 - 5:15 p.m. **Konrad Sandhoff, Universität Bonn, Germany**  
Sphingolipid metabolism
- 5:15 - 5:45 p.m. **Andrea Huwiler, Universität Bern, Switzerland**  
Sphingolipid signalling in inflammation
- 5:45 - 6:15 p.m. **Bernhard Brüne, Goethe-Universität, Frankfurt, Germany**  
Sphingolipid signalling in macrophage differentiation
- 6:15 p.m. Welcome Reception**

## Friday, September 5<sup>th</sup>, 2008 morning

**8:30 – 10:00 a.m.**

### **Session 2: Bioactive Sphingolipids**

Chair: Josef Pfeilschifter, Goethe-Universität, Frankfurt, Germany

8:30 - 9:00 a.m.

**Thomas Baumruker, Novartis Wien, Austria**

Sphingosine kinases as pharmacological targets

9:00 - 9:30 a.m.

**Erich Gulbins, Universität Essen, Germany**

Liver cell death and anemia in Wilson disease involve acid sphingomyelinase and ceramide.

9:30 - 10:00 a.m.

**Gerit van Meer, Utrecht University, The Netherlands**

Cellular lipidomics

**10:00 – 11:15 a.m.**

### **Posters Session and Refreshments**

**11.15 – 12:45 p.m.**

### **Session 3: Selected Oral Presentations from the Submitted**

#### **Abstracts**

Chair: Hartmut Kühn, Charité, Berlin, Germany

11:15 - 11:30 a.m.

**Markus Gräler, Hannover Medical School, Germany**

Sphingolipids as potential targets for immune interventions

11:30 - 11:45 a.m.

**Martin Krause, Schleswig-Holstein Universität, Campus Kiel, Germany**

Improved pulmonary function by acid sphingomyelinase inhibition in a newborn piglet lavage model

11:45 - 12:00 p.m.

**Ralf Claus, Universitätsklinikum Jena, Germany**

Activity of plasma secreted sphingomyelinase in patients with systemic inflammation and organ failure

12:00 - 12:15 p.m.

**Jean-Marc Zingg, Tufts University, Boston, USA**

Modulation of signal transduction and gene expression by tocopherol and tocopheryl phosphate

12:15 - 12:30 p.m.

**Maik Gollasch, Charité, Berlin, Germany**

Interaction between P450 eicosanoids and nitric oxide in the control of arterial tone in mice

12:30 - 12:45 p.m.

**Ralf Köhler, BMFZ Marburg, Germany**

Activation of endothelial TREK-1 by poly-unsaturated fatty acids induces increased EDHF-type dilator responses in hypertensive mice

## **Friday, September 5<sup>th</sup>, 2008 afternoon**

**12.45 – 2:00 p.m.**

**Lunch**

**2:00– 4:00 p.m.**

### **Session 4: Cannabinoids I**

Chair: Horst-Werner Korf, Goethe-Universität, Frankfurt, Germany

2:00 - 2:30 p.m.

**Raphael Mechoulam, University of Jerusalem, Israel**

The chemistry of endocannabinoids

2:30 - 3:00 p.m.

**Daniele Piomelli, University of California at Irvine, USA**

Cannabinoids and brain functions

3:00 - 3:30 p.m.

**Beat Lutz, Gutenberg-Universität, Mainz, Germany**

Neuromodulatory function of endocannabinoids

3:30 - 4:00 p.m.

**Andreas Zimmer, Universität Bonn, Germany**

Role of cannabinoid receptors

**4:00 – 4:30 p.m.**

**Refreshments**

**4:30 – 6:00 p.m.**

### **Session 5: Eicosanoids I**

Chair: Ingrid Fleming, Goethe-Universität, Frankfurt, Germany

4:30 - 5:00 p.m.

**Edward Dennis, University of California at San Diego, USA**

Phospholipase A<sub>2</sub> signaling and eicosanoid lipidomics

5:00 - 5:30 p.m.

**Dieter Steinhilber, Goethe-Universität, Frankfurt, Germany**

The complex control of 5-lipoxygenase in monocytes

5:30 - 6:00 p.m.

**Andreas J. Habenicht, Friedrich-Schiller-Universität, Jena, Germany**

Lipoxygenases in atherosclerosis and vascular disease

**7:00 p.m.**

**Conference-Dinner (Tram departs 6:45 p.m.)**

## **Saturday, September 6<sup>th</sup>, 2008 morning**

**8:30 – 10.00 a.m.**

### **Session 6: Cannabinoids II**

Chair: Horst-Werner Korf, Goethe-Universität, Frankfurt, Germany

8:30 - 9:00 a.m.

**George Kunos, National Institutes of Health, Bethesda, USA**

Endocannabinoids in health and disease

9:00 - 9:30 a.m.

**Vincenzo di Marzo, University of Naples, Italy**

Role of endocannabinoids in endocrine regulation and energy balance

9:30 - 10:00 a.m.

**Faramarz Dehghani, Goethe-Universität, Frankfurt, Germany**

Cannabinoids and neuroprotection

**10:00 – 11:15 a.m.**

### **Posters session and Refreshments**

**11:15 – 12:45 p.m.**

### **Session 7: Selected Oral Presentations from the Submitted**

#### **Abstracts**

Chair: Burkhard Hinz, Universität Rostock, Germany

11:15 - 11:30 a.m.

**Magnus Bäck, Karolinska Institute, Stockholm, Sweden**

Leukotriene B4 signaling in extracellular matrix degradation associated with atherosclerosis and in-stent restenosis.

11:30 - 11:45 a.m.

**Peter Krieg, DKFZ, Heidelberg, Germany**

A novel eicosanoid pathway is essential for the epidermal barrier function: Lessons from congenital ichthyosis and 12R-lipoxygenase deficient mice

11:45 - 12:00 p.m.

**Karin Müller-Decker, DKFZ, Heidelberg, Germany**

Cox-2 transgenic mice as models for epithelial carcinogenesis

12:00 - 12:15 p.m.

**Bernhard H. Rauch, Heinrich-Heine Universität, Düsseldorf, Germany**

Acetylsalicylic acid inhibits release of sphingosine-1-phosphate from human platelets

12:15 - 12:30 p.m.

**Georg Reiser, Otto-von-Guericke Universität, Magdeburg, Germany**

PPAR-gamma positively and PPAR-alpha negatively controls cyclooxygenase-2 expression in rat brain astrocytes through a PPAR-beta-dependent pathway: Novel interaction of lipid-responsive transcription factors

12:30 - 12:45 p.m.

**F. Markus Leweke, Universität Köln, Germany**

Heritability aspects of endocannabinoid functioning in schizophrenia

## **Saturday, September 6<sup>th</sup>, 2008 afternoon**

**12:45 – 2 p.m.**

**Lunch**

**2:00 – 3:30 p.m.**

### **Session 8: Eicosanoids II**

Chair: Ingrid Fleming, Goethe-Universität, Frankfurt, Germany

2:00 – 2:30 p.m.

**Darryl C. Zeldin, National Institute of Environmental Health Science, NIH, Research Triangle Park, NC, USA**

EETs in the heart

2:30 – 3:00 p.m.

**Michael Arand, University of Zürich, Switzerland**

Structure and biochemistry of the soluble epoxide hydrolase

3:00 – 3:30 p.m.

**Ralf P. Brandes, Goethe-Universität, Frankfurt, Germany**

Soluble epoxide hydrolase and control of the biological functions of EET

**3:30 – 4:00 p.m.**

**Refreshments**

**4:00 – 6:00 p.m.**

### **Session 9: Lipid Functions in Health and Disease**

Chair: Karsten Schrör, Düsseldorf, Germany

4:00 – 4:30 p.m.

**Jesper Haeggström, Karolinska Institute, Stockholm, Sweden**

The function of leukotrienes in the vascular homeostasis

4:30 – 5:00 p.m.

**Hermann-Josef Gröne, DKFZ Heidelberg, Germany**

Glycosphingolipids – modulators of cell differentiation

5:00 – 5:30 p.m.

**Timothy Hla, University of Connecticut Health Center, USA,**

Role of sphingosine 1-phosphate and sphingosine kinases in Diseases

5:30 – 6:00 p.m.

**Gerd Geisslinger, Goethe-Universität, Frankfurt, Germany**

Sphingolipid signalling and pain perception

**6:00 p.m.**

**Poster Prizes, Concluding Remarks, Adjournment (H.-W. Korf)**

**End of Symposium and Departure**