8th Meeting of the German-Endocrine-Brain-Immune-Network GEBIN.2010
April 28th-30th, 2010 | Essen, Germany
Program
8th Meeting of the GEBIN  
April 28th - 30th, 2010

Location
Zeche Zollverein
Erich Brost-Pavillon
Gelsenkirchener Str. 181
45309 Essen

Local Organizers
Sigrid Eisenbruch
Harald Engler

Scientific Committee
Petra Arck Berlin
Hugo O. Besedovsky Marburg
Markus Böhm Münster
Jan Born Lübeck
Adriana del Rey Marburg
Harald Engler Essen
Bernd Fiebich Freiburg
Ralf Gold Bochum
Volker Höllt Magdeburg
Jürgen Kraus Magdeburg
Tanja Lange Lübeck
Norbert Möller München
Manfred Schedlowski Essen
Markus Schwarz München
Günther K. Stalla München
Volker Stefanski Stuttgart
Rainer H. Straub Regensburg
Eberhard Weihe Marburg

Invited Speakers
Fabrizio Benedetti Turin, ITA
Bente K. Pedersen Copenhagen, DK
Thomas J. Connor Dublin, IRL

GEBIN Educational Short Course  
April 27th - 28th, 2010

Location
Institute of Medical Psychology and Behavioral Immunobiology
University Hospital Essen
Vinchowstrasse 171
45147 Essen

Lecturers
Adriana del Rey Marburg (Organizer)
Sven Benson Essen
Richard Dodel Marburg
Wiebke Hansen Essen
Anнемiek Kavelaars Utrecht, NL
Karsten Krüger Giessen
Völker Stefanski Stuttgart
Wednesday, April 28th

Opening
13:30 h  Welcome Address
Manfred Schedlowski | Steering Committee of the GEBIN
Jan Buer | Dean of Research, Medical Faculty, University of Duisburg-Essen
Sigrid Eisenbruch & Harald Engler | Local Organizers

13:45-14:30 h Invited Speaker: Fabrizio Benedetti | University of Turin, ITA
Mechanisms and clinical applicability of placebo effects:
From bench to bedside
Chair: Sigrid Eisenbruch

Stress, Behavior and Immune Function
Chairs: Tanja Lange/Volker Stefanski

14:30 h  Byron Bitanihirwe | Swiss Federal Institute of Technology, Zurich, CH
Late prenatal immune activation in mice leads to behavioral and
neurochemical abnormalities relevant to the negative and cognitive
symptoms of schizophrenia

14:45 h  Christian Bruenahl | Charité, Berlin
Fetal origin of allergic asthma: insights on mechanistic cues
and therapeutic targets arising from a mouse model of prenatal
stress challenge

15:00 h  Hoang Thanh Ho | McMaster University, Hamilton, CAN
Prenatal stress enhances severity of atherosclerosis in adult
murine offspring

15:15 h  Maria Emilia Solano | Charité, Berlin
Fetal origin of adult disease: stress-induced impaired fetal develop-
ment in mice is prevented by progesterone supplementation

15:30 h  Stefan Reber | University of Regensburg
Chronic psychosocial stress promotes systemic immune activation
and the development of inflammatory Th cell responses

15:45-16:15 h Coffee Break
Wednesday, April 28th (cont.)

**Stress, Behavior and Immune Function**

*Chairs: Jutta Wolf/Nicolas Rohleder*

16:15 h  **Ulrike Gimsa** | Leibniz Institute for Farm Animal Biology, Dummerstorf  
Anxiety-like behavior and stress reactivity in UCP2 deficient mice

16:30 h  **Rebecca Thwing Emeny** | Helmholtz Zentrum, Munich  
Work stress associated inflammatory burden contributes to long-term risk of coronary events: findings from the MONICA/KORA Augsburg Case-Cohort Study

16:45 h  **Eva Milena Peters** | Charité, Berlin  
Stress alters allergic dermatitis via neurogenic mechanisms

17:00 h  **Jan Sebastian Grigoleit** | University Hospital Essen, University of Duisburg-Essen  
Acute endotoxemia elicits differential brain activation but not an impairment of performance in social cognition tasks

17:15 h  **Jennifer Kullmann** | University Hospital Essen, University of Duisburg-Essen  
Effects of a low-grade acute inflammation on memory functions and emotion regulation: An fMRI study

17:30 h  **Nadja Tarverdian** | Charité, Berlin  
Neuroendocrine circuitry and endometriosis: progesterone derivative dampens corticotropin-releasing hormone-induced inflammation by peritoneal cells in vitro

17:45 h  **Kirstin Ober** | University Hospital Essen, University of Duisburg-Essen  
Classical conditioning of immunosuppression in humans

18:00 h  Welcome Reception
Thursday, April 29th

**Stress, Behavior and Neuro-Endocrine Function**
Chairs: Manfred Schedlowski/Sven Benson

9:00 h  
**Jutta Wolf** | Brandeis University, Waltham, USA  
Corticosteroid-binding globulin and cortisol responses to acute psychosocial stress

9:15 h  
**Petra Wirtz** | University of Zurich, CH  
Increases in B-type natriuretic peptide after acute mental stress in heart failure patients are associated with alcohol consumption

9:30 h  
**Nicolas Rohlérer** | Brandeis University, Waltham, USA  
One- and two-year stability of salivary alpha-amylase diurnal rhythm and overall daily output

9:45 h  
**Tanja Lange** | University of Luebeck  
Sleep is an adjuvant

10:00 h  
**Christiane Berndt** | University of Technology, Dresden  
Influence of day and night sleep on basal activity of the hypothalamic pituitary adrenal axis

10:15 h  
**Sigrid Elsenbruch** | University Hospital Essen, University of Duisburg-Essen  
Emotional modulation of the neural response to visceral stimuli in chronic abdominal pain

10:30-11:00 h  
Coffee Break

**Neuro-Endocrine-Immune Network in Psychiatric Disease**
Chairs: Markus Schwarz/Norbert Müller

11:00 h  
**Stéphanie Vuillermot** | Swiss Federal Institute of Technology, Zurich, CH  
Prenatal immune challenge induces primary defects in dopaminergic development relevant to schizophrenia

11:15 h  
**Petra Wirtz** | University of Zurich, CH  
The polymorphic region of the 5-HTT gene moderates the association between overcommitment and depression
Thursday, April 29th (cont.)

Neuro-Endocrine-Immune Network in Psychiatric Disease (continued)
Chairs: Markus Schwarz/Norbert Müller

11:30 h  
Aye Mu Myint | Ludwig-Maximilians-University, Munich
Tryptophan pathway changes in mood disorders: Genetic and biochemical aspects

11:45 h  
Mirjam van Zuilen | University Medical Center, Utrecht, NL
Glucocorticoid receptor binding to peripheral blood mononuclear cells before military deployment predicts PTSD symptoms 6 months after deployment to Afghanistan

12:00 h  
Markus Schwarz | Ludwig-Maximilians-University, Munich
The effect of exercise and inactivity on mood and immune function

12:15-13:00 h  
Invited Speaker: Bente K. Pedersen | University of Copenhagen, DK
Exercise immunology: New findings and clinical perspectives
Chair: Manfred Schedlowski

13:00-14:30 h  
Lunch Break

Neuroimmunology of the CNS
Chairs: Annemieke Kavelaars/ Raif Linker

14:30 h  
Cobi Heijnen | University Medical Center, Utrecht, NL
Mesenchymal stem cells to treat neonatal hypoxic-ischemic brain damage

14:45 h  
Kirsten Oesterwind | Goethe-University, Frankfurt
Participation of hematopoietic cells in Cre mediated recombination of Purkinje neurons

15:00 h  
Annemieke Kavelaars | University Medical Center, Utrecht, NL
GRK2: a novel cell specific regulator of neuropathic and inflammatory pain

15:15 h  
Hanneke Willemen | University Medical Center, Utrecht, NL
Microglial/macrophage GRK2 determines duration of peripheral IL-1b-induced hyperalgesia: contribution of spinal cord CX3CR1, p38 and IL-1 signaling
Thursday, April 29th (cont.)

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Institution</th>
<th>Topic</th>
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<tbody>
<tr>
<td>15:30</td>
<td>Huijing Wang</td>
<td>University Medical Center, Utrecht, NL</td>
<td>Low GRK2 enhances and prolongs epinephrine-induced hyperalgesia</td>
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<td>15:45</td>
<td>Harald Engler</td>
<td>University Hospital Essen, University of Duisburg-Essen</td>
<td>Neurochemical and electrophysiological changes in the amygdala of endotoxemic rats</td>
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<td>16:00</td>
<td>Timo Wirth</td>
<td>University Hospital Essen, University of Duisburg-Essen</td>
<td>Fingerprints of neural activity after peripheral immune challenge in freely moving rats</td>
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<td>16:15</td>
<td>Arndt Manzel</td>
<td>Ruhr-University, Bochum</td>
<td>Alternative pathways of the renin-angiotensin system in autoimmune inflammation of the CNS</td>
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<td>16:30-17:00</td>
<td>Coffee Break</td>
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<td>16:30-17:30</td>
<td>Meeting of the Steering Committee of the GEBIN</td>
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<td>17:30-19:30</td>
<td>Guided Tour on Zeche Zollverein</td>
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<td>19:30</td>
<td>Social event</td>
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Friday, April 30th

9:00-9:45 h  
**Invited Speaker: Thomas J. Connor** | Trinity College Dublin, IRL  
Noradrenergic control of inflammatory processes in the CNS: Towards combating neurodegeneration  
Chair: Harald Engler

**Peripheral Neuro-Immune Interactions**  
Chair: Silvia Capellino

9:45 h  
**Georg Pongratz** | University Hospital Regensburg  
Beta2-adrenergic receptor stimulation at the time-point of B cell activation increases expression of functional IL-7 receptors

10:00 h  
**Markus Böhm** | University of Muenster  
The alpha-melanocyte-stimulating hormone-related tripeptide derivative KdPT – an anti-inflammatory, anti-oxidative small molecule and emerging new therapeutic agent

10:15 h  
**Agatha Kokot** | University of Muenster  
Alpha-MSH increases the expression of suppressors of cytokine signaling (SOCS)1/3 in human melanocytes

10:30-11:00 h  
Coffee Break

**Peripheral Neuro-Immune Interactions**  
Chairs: Georg Pongratz/Adriana del Rey

11:00 h  
**Anne Wagner** | Philipps-University, Marburg  
Effect of immune-cell products on apoptosis, proliferation and metabolism of PC12 cells, a model of sympathetic neurons

11:15 h  
**Jürgen Kraus** | University of Magdeburg  
Morphine inhibits NFkappaB signaling in neuronal and immune cells by diverse mechanisms

11:30 h  
**Silvia Capellino** | University Hospital Regensburg  
Upregulation of dopamine pathway in rheumatoid arthritis

11:45 h  
**Torsten Lowin** | University Hospital Regensburg  
The endocannabinoid system is influenced by steroid hormones in rheumatoid arthritis
Friday, April 30\textsuperscript{th} (cont.)

12:00 h  
**Stefanie Haas** | University Hospital Regensburg  
Impact of IL-1 beta and TNF on the circadian rhythm of synoviocytes in osteoarthritis and rheumatoid arthritis

12:15 h  
**Alexander Fassold** | University Hospital Regensburg  
Development of a new in vitro assay to test the repulsion of sympathetic nerve fibers

12:30 h  
Closing remarks  
**Volker Stefanski & Harald Engler** | Steering Committee of the GEBIN

12:45 h  
End of the Meeting
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