

**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 Elsenbruch
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 Müller	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
Virchowstrasse 171
45147 Essen

Lecturers

Adriana del Rey	Marburg (Organizer)
Sven Benson	Essen
Richard Dodel	Marburg
Wiebke Hansen	Essen
Annemieke Kavelaars	Utrecht, NL
Karsten Krüger	Giessen
Volker 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 Elsenbruch & 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 Elsenbruch

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

María Emilia Solano | Charité, Berlin

Fetal origin of adult disease: stress-induced impaired fetal development 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 Tariverdian 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 Rohleder 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 Zuiden** | 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/Ralf 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.)

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

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

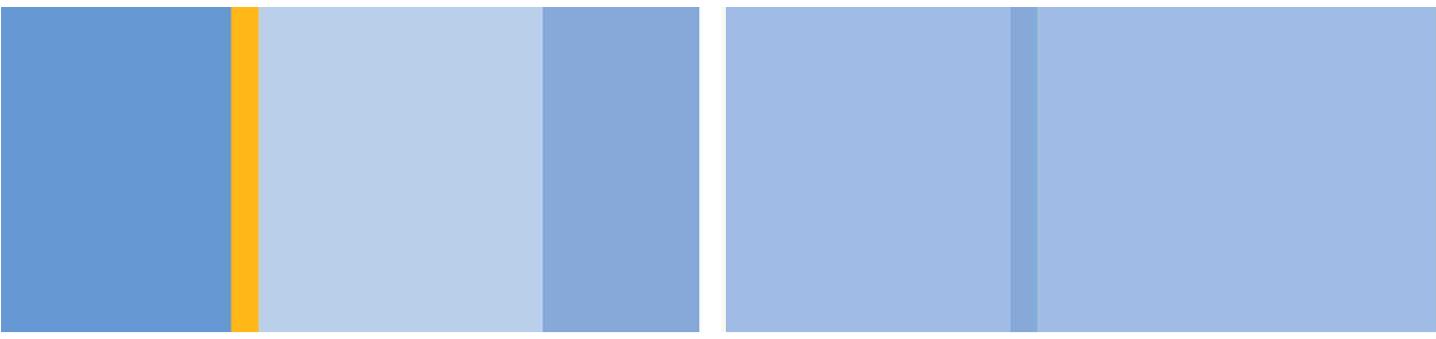
11:15 h **Jürgen Kraus** | University of Magdeburg
Morphine inhibits NFkappaB signaling in neuronal and immune cells by diverse mechanisms

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 30th (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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