11th Psychoimmunology Expert Meeting

March 8-11, 2012

New findings and hypotheses
from epidemiology, clinical and experimental research

World Psychiatric Association, Immunology and Psychiatry Section

Organizers

Prof. Karl Bechter, Günzburg /Ulm
Prof. Bernhard Bogerts, Magdeburg
PD Dr. Johann Steiner, Magdeburg

Scientific Board

Prof. Volker Arolt, Münster      Dr. Aye-My Myint, München
Prof. Hemmo Drexhage, Rotterdam  Prof. Hansotto Reiber, Göttingen
Prof. Brian Leonard, Galway      PD Dr. Matthias Rothermundt, Münster
Dr. Horst-G. Maxeiner, Günzburg  PD Dr. Markus Schwarz, München
Prof. Norbert Müller, München

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11th Psychoimmunology Expert Meeting  
March 8-11, 2012  
Final Program  

Gene-Environment-Interaction in Psychoneuroimmunology  
New findings and hypotheses  
from epidemiology, clinical and experimental research  

Thursday, March 8, 2012  
Location: Schloss Reisensburg/Entrance  

6.00 pm  
Registration  

6.45 pm  
Dinner Buffet  

7.30 – 9.00 pm  
Location: Schloss Reisensburg/Red Saloon  

Welcome Addresses  
Organizers: K. Bechter / B. Bogerts / J. Steiner  
Prof. T. Becker, Head of the Clinic for Psychiatry and Psychotherapy II, Günzburg  
Prof. T. Wirth, Dean of the Medical Faculty of Ulm University  

Opening Lectures  
Chairs:  K. Bechter, Ulm/Germany  
         B. Leonard, Galway/Ireland  

Is inflammation-induced depression mediated by activation of NMDA receptor signalling or deficient serotoninergic neurotransmission?  
R. Dantzer, Urbana/USA  

History of ideas in neural regeneration and repair  
G. Kreutzberg, Munich, Germany
Friday, March 9, 2012

Location: Festsaal Bezirkskrankenhaus Guenzburg

8.30 – 10.00 am

**Biomarkers (I):**

Chairs:  *B. Bogerts*, Magdeburg/Germany
        *R. Yolken*, Baltimore/USA

Inflammatory markers associated with mania
*F. Dickerson, Baltimore/USA*

Antibodies to food antigens: translational research in psychiatric disorders
*E. Severance, Baltimore/USA*

Maternal antibodies to fetal brain proteins and childhood autism
*D. Braunschweig, California/USA*

High throughput sequencing for the identification of novel infectious agents associated with human psychiatric disorders
*R.H. Yolken, Baltimore/USA*

10.00 – 10.30 am: Coffee break

10.30 – 12.00 am

**Biomarkers (II):**

Chairs:  *N. Müller*, Munich/Germany
        *S. Janelidze*, Lund/Sweden

Circulating immune cells shape the mind and fight mental disorders
*M. Schwartz, Rehovot/Israel*

hsCRP in depressed outpatients. Any association to depressive symptoms?
*J. Krogh, Copenhagen/Denmark*
Serum S100B in patients with and without delirium
*T. Falcone, Cleveland/USA*

Associations between focal brain structural alterations, phospholipid metabolism and glutamatergic neurotransmission - a combined 31P/1H MR spectroscopy investigation in patients with first acute onset schizophrenia
*B. Milleit, Jena/Germany*

**12.00 am – 1.30 pm: Lunch break / Posters**

**1.30 – 3.30 pm**

**Blood brain barrier and Glia:**

Chairs: *H. Wolburg, Tübingen/Germany*

*A. Schmitt, Göttingen/Germany*

Molecular mechanisms and anatomical routes of immune cell entry into the central nervous system
*B. Engelhardt, Bern/Switzerland*

Blood-brain barrier and immune privilege: Concepts and misconceptions
*I. Bechmann, Leipzig/Germany*

Diving into the mechanics of the psychotic brain: Microglia PET imaging
*H. Klein, Groningen/Netherlands*

The role of glial cells in depression and neurodegeneration
*C. Song, Nanning/China*

Characterisation of the expression of NMDA receptors in human primary astrocytes
*G. Guillemin, Sydney/Australia*

The peripheral CSF outflow pathway - possible role in neuropsychiatric disorders
*K. Bechter, Ulm/Germany*
3.30 – 4.00 pm: Coffee break

4.00 – 4.45 pm

Special topics:

Chairs:  J. Steiner, Magdeburg/Germany  
V. Arolt, Münster/Germany

Hypothalamic circuits control higher brain functions and impairments  
*T. Horvath, New Haven/USA*

Multiple sclerosis and iron homeostasis  
*F. Marques, Braga/Portugal*

**Location: Schloss Reisensburg/Red Saloon**

5.00 – 6.30 pm

Workshop - Future of Psychiatry: Possible application of immune markers in personalized medicine in depression  

Chairs:  B. Leonard, Galway/Ireland  
A. Halaris, Maywood/USA

Role of VEGF in depression and neuroplasticity  
*A. Halaris, Maywood/USA*

Quinolinic acid expression in post mortem brain tissue from depressed patients  
*J. Steiner, Magdeburg/Germany*

Gene-biochemical interaction of kynurenine metabolites in depressed patients  
*A.M. Myint, Turnout/Belgium*

Kynurenines as predictor for response to add-on COX2 inhibitor therapy  
*N. Müller, Munich/Germany*

7.00 pm: Dinner
8.15 – 9.30 pm

**Special lectures and discussion:**

Chairs:  *I. Bechmann, Leipzig/Germany*

*H. Reiber, Berlin/Germany*

Pulsatile cerebrospinal fluid flow in the cranial subarachnoid space
*V. Kurtcuoglu, Zürich/Switzerland*

Human meningeal barrier property modulation with pressure
*D. Grzybowski, Columbus/USA*

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**Saturday, March 10, 2011**

**Location:** Festsaal Bezirkskrankenhaus Guenzburg

9.00 – 10.30 am

**Environmental factors and Infections (I):**

Chairs:  *F. Dickerson, Baltimore/USA*

* A.M. Myint/Turnout/Belgium

Autoimmunity and infections as risk factors for depression and other severe mental illnesses
*M. Benros, Aarhus/Denmark*

Can infections and immune reactions to them cause violent behaviour?
*R. Bransfield, Red Bank/USA*

Human endogenous retrovirus type W (HERV-W) envelope gene expression is significantly increased in peripheral lymphoid cells of patients with schizophrenia and bipolar disorder
*H. Perron, Lyons/France*
Can latent Epstein-Barr virus infection in the central nervous system contribute to neuroinflammation?

*U. Meier, London/UK*

**10.30 – 11.00 am: Coffee break**

**11.00 – 12.45 am**

**Environmental factors and Infections (II):**

Chairs:  *R. Dantzer, Urbana/USA*

* K. Bechter, Günzburg/Germany*

- Brain infection by African trypanosomes during sleeping sickness  
  *H. Wolburg und M. Duszenko, Tübingen/Germany*

- Toxoplasma gondii and suicidal behavior  
  *T.T. Postolache, Baltimore/USA*

- Meningoencephalitis as the cause of dementia and psychosis in chronic late neurosyphilis and Lyme neuroborreliosis  
  *J. Miklossy, Martigny-Croix/Switzerland*

- In vivo LPS administration alters S100B protein content in cerebrospinal fluid, but not in serum  
  *C.A. Goncalves, Porto Alegre/Brazil*

- Effect of physical exercise on psychoneuroimmunological parameters in patients with depression and patients with somatoform disorders  
  *M. Schwarz, Munich/Germany*

**12.45 am – 2.00 pm: Lunch break / Posters**

**2.00 – 3.45 pm**

**Genetics and Epigenetics:**

Chairs:  *T. Horvath, New Haven/USA*
H. Reiber, Berlin/Germany

Epigenesis and epigenetics – Understanding chronic diseases as a self-organizing stable phenotype
H. Reiber, Berlin/Germany

Genetics of the immune response in individuals with psychiatric disorders
V. Nimgaonkar, Pittsburgh/USA

Variance in the MHC genomic region and neurotropic infection status in schizophrenia: potential insights into etiology, pathogenesis and/or severity of schizophrenic subphenotypes
C. Hammer, Göttingen/Germany

Regulation of immune-modulatory genes in brain regions of schizophrenia patients: a genome-wide microarray study
A. Schmitt, Göttingen/Germany

P2RX7 SNP genotypes associated with psychiatric disorders
M. Schneider, Ulm/Germany

3.45 – 4.15 pm: Coffee break

4.15 – 5.45 pm

Therapy:
Chairs: A. Laugeray, Orléans/France
G. Guillemin, Kensington/Australia

IDO inhibition: a new antidepressant treatment?
A. Laugeray, Orléans/France

The role of dispersible amyloid beta-protein aggregates for Alzheimer’s disease and its therapy
D. Thal, Ulm/Germany
Chronic immune activation and inflammation increase plasma phenylalanine to tyrosine ratios
*D. Fuchs, Innsbruck/Austria*

Are antidepressants anti-inflammatory drugs? A critical look at the evidence
*B. Leonard, Galway/Ireland*

Escitalopram for the prevention of peginterferon alpha-2a- and ribavirin-associated depression in HCV-infected patients without prior psychiatric disease: a randomized controlled trial
*M. Schäfer, Essen/Germany*

**Location: Schloss Reisensburg**

**7.30 pm: Dinner & Music**

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**Sunday, March 11, 2012**

**Location: Schloss Reisensburg**

**9.00 – 11.00 am**

Workshop – Monocyte and microglia activation in mood disorders and schizophrenia: The outcomes of array systems in patients and animal models, the role of microRNA’s and epigenetic regulation
Chair: *H. Drexhage*, Rotterdam/Netherlands

W. Beumer, T. van der Doef, H. Klein, J. Steiner, K. Weigelt
Posters

Location: Festsaal Bezirkskrankenhaus Guenzburg

1. Garden rehabilitation stabilises INF-gamma and IL-2 levels but does not relieve depressive-symptoms
   C. Bay-Richter, L. Träskman-Bendz, P. Grahn, L. Brundin, Lund/Sweden

2. Effects of methylphenidate treatment on ROS formation in the blood of children with ADHD
   P. Heiser, O. Sommer, A. Hoinkes, M. Röttinger, U. Hopt, E. Schulz, K. Hennighausen, H.W. Clement H.W., Freiburg/Germany

3. Functional effects of anti-neuronal antibodies in patients with encephalitis lethargica and other related disorders associated with streptococcal infection
   P. Dua, U.C. Meier, D. Baker, G. Giovannoni, London/United Kingdom

4. Classification of free nucleic acids in cerebrospinal fluid of psychiatric patients
   H. Hohmann, L. Lamoller, R. Klein- Unseld, H.G. Maxeiner, K. Bechter, M. Schneider, Ulm/Germany

5. Low chemokine levels in the cerebrospinal fluid of suicide attempters

6. Effect of different antipsychotic compounds on tryptophan metabolites and cytokines after different immune challenges in astrocytes culture

7. Ibuprofen effect on inflammatory cytokines production by mononuclear cells of schizophrenic patients
   P. Sirota, D. Choen-Terika, H. Bessler, Tel Aviv/Israel

8. Effect of different antidepressants and cyclooxygenase-2 inhibitor on tryptophan breakdown and cytokines after different immune challenges in astrocytes culture: a preliminary study