18th Biennial Conference
September 25th – 28th 2014
Leipzig, Germany

Preliminary Conference Program
Conference Program

Wednesday, September 24th IPEG Board meeting
Thursday, September 25th (Venue I)

The special symposium on EEG Based Personalized medicine in psychiatry and the traditional Training Course will be conducted in parallel. Both programs can be found below.

**EEG Based Personalized Medicine in Psychiatry Symposium**

9.00-9.15  Introduction to the EEG Based Personalized Medicine day  
*Martijn Arns & Sebastian Olbrich*

*EEG-Vigilance Regulation: A Framework for treatment prediction?*

9:15-10:00  EEG-vigilance regulation in neuropsychiatric disorders  
*Ulrich Hegerl*

10.00-10:45  EEG-vigilance and the autonomous nervous system in the prediction of antidepressant treatment: Findings from the iSPOT-D study  
*Sebastian Olbrich*

10:45-11:00  Coffee break

*Recent results and challenges of prediction of psychiatric treatment outcome.*

11:00 - 11:45  The utility of electrocortical measures in characterizing depression and treatment response  
*Natalia Jaworska*

11:45 – 12:30  Response prediction of psychiatric treatment – how close is practical application?  
*Jürgen Gallinat*

12:30-13:30  Lunch

*Personalized medicine, the next step? International multicenter studies: EMBARC and iSPOT*

13:30-14:15  EMBARC Study on Biological Biomarkers in Psychiatry  
*Gerard Bruder*

14:15-15.00  First results of the iSPOT studies in Depression and ADHD: EEG alpha asymmetry as a gender specific predictor of SSRI treatment outcome  
*Martijn Arns*

15:00-15:30  Coffee break

15.30-15.45  The IPPEC, a new industry-academia initiative to set up a global, translational and precompetitive pharmaco-EEG database.  
*Gé Ruigt*

15:45-16:30  Roundtable  
EEG based Personalized Medicine: How close are we from practical application and what are the required steps?  
*Ulrich Hegerl, Sebastian Olbrich, Natalia Jaworska, Jürgen Gallinat, Gerard Bruder, Gé Ruigt and Martijn Arns*
Training Course
The traditional one-day Training Course is delivered by a panel of experts. The series of lectures covers a broad spectrum of aspects related to pharmaco-EEG and its applications.

9:00-9:15  Introduction
Pim Drinkenburg

9:15-10:00  Animal pharmaco-EEG recording
Gé Ruigt

10:00-10:45  Pharmaco-EEG Recording and Analysis in Humans
Marc Jobert

10:45-11:00  Coffee break

11:00-11:45  Independent Component Analysis: Method and Application in EEG-research
Scott Makeig

11:45-12:30  State-of-the-Art Analysis of high-frequency (gamma range) EEG in Humans
Judith Nottage

12:30-13:15  Lunch

13:15-14:00  Preclinical EEG – a translatable Biomarker for Drug Discovery Research
Pim Drinkenburg

14:00-14:45  Role of EEG in Early Decision-Making in Drug Development
Frederick J. Wilson

14:45-15:00  Coffee break

15:00-15:45  Safety Pharmacology: Use of Pharmaco-EEG in the anesthetized dog model.
Henk J. Van der Linde

15:45-16:30  Assessment of EEG-vigilance
Christian Sander

16:30-16:45  Coffee break

16:45-17:30  Cordance and Sleep-EEG – Treatment Response in Depression
Marcel Pawlowski

17:30-18:15  n/a

Thursday evening September 25th
19:00-20:00  Turan Itil Memorial Lecture
Bernd Saletu

20:00-22:00  Cocktail party and welcome reception
Conference Program

Friday September 26th (Venue I)

8:00-8:30 Coffee light-breakfast

8:30-9:00 Presidential address and welcome
Pim Drinkenburg (IPEG President), Ulrich Hegerl (IPEG 2012), Michael Stumvoll (Medical Faculty Director University of Leipzig)

9:00-9:45 Keynote 1 – QEEG Source Localization in the Identification of Theoretical Underlying Pathophysiology in Subtypes of Neuropsychiatric/Neurological Disorders
Leslie Prichep

9:45 10:15 Coffee break

10:15-12:00 Symposium 1 – TMS-EEG – a novel technique to study brain excitability and connectivity (Chair: Ulf Ziemann)

- Technique and fundamentals of TMS-EEG
  Risto Ilmoniemi (Aalto Finland)

- Characterization of TMS-evoked EEG potentials
  Ulf Ziemann (Tübingen, Germany)

- TMS-evoked potentials as a marker of brain maturation in childhood and adolescence.
  Stephan Bender (Frankfurt am Main, Germany)

- Insights into unconsciousness by TMS-EEG
  Mario Rosanova (Milano, Italy)

12:00-13:00 Lunch

13:00-14:30 Symposium 2 – Electropsychopharmacology – enriching psychopharmacology with event related potentials (Chair: Leon Kenemans)

- Drug effects in visual spatial-cuing paradigms
  Leon Kenemans

- Genetic polymorphisms in the dopamine and serotonin system as factors in neurophysiological indoces of hypervigilance
  Ivo Heitland

- Functional neuromarkers for psychiatry: clinical applications of event related potentials for diagnosis, prognosis and treatment.
  Juri Kropotov

14:30-15:00 Coffee break

15:00-15:45 Keynote 2 – From maps to mechanisms: Multimodal Imaging with EEG, fMRI and DTI in Psychiatry
Christoph Mulert

15:45-17:30 Oral Presentations Session 1
Electrophysiological correlates of response inhibition across menstrual cycle: Go-Nogo potential study

*Inga Griskova-Bulanova*

Stimulant medication in pediatric ADHD: Predicting the clinical outcome from single-dose changes in Event Related Potentials (ERPs) and a Go/No-go test

*Geir Ogrim*

Proof-of-Principle to efficacy in psychiatric patients exemplified by a neuronal-selective nicotinic agonist AZD1446

*Peter Boeijinga*

Individual Alpha Peak Frequency as an Endophenotype Associated with Affective Predisposition

*L.I. Aftanas*

18:00  Bus to Zoo Leipzig

18:30  Guided Tour through the Zoo Leipzig and Dinner Event at the Hacienda, Zoo Leipzig

Saturday September 27th (Venue II)

8:00-8:30 Coffee light-breakfast

8:30-9:15 **Keynote 3 – Source-resolved EEG analysis in ADHD and schizophrenia**  
*Scott Makeig*

9:15-10:45 **Symposium 3 – Fast acting agents and underlying neurotransmitter systems (Chair: Georg Winterer)**

- Ketamine - perspectives from a neurophysiological point of view  
  *Georg Winterer*
- Pharmacoe-EEG study of ketamine in patients with major depressive disorder: QEEG and clinical predictors of antidepressive response  
  *Martin Brunovsky*
- EEG power spectra and connectivity changes in animal models of psychosis - comparisons of glutamatergic, serotonergic and cannabinoide models  
  *Tomas Palenicek*
- Functional connectivity analysis of default mode network changes after ketamine application in healthy subjects  
  *Felix Müller*

10:45-11:00 Coffee break

11:00-12:15 **Oral Presentations Session 2**

- Resting EEG abnormalities in traumatised refugee adults  
  *Mirjana Askovic*
- Objectively Identifying Abnormal EEG Recordings in Clinical Studies  
  *Junshui Ma*
- Registration of the brain activity under the influence of artificial electromagnetic radiation  
  *Reznikov Dmitry*
- Machine Learning for a Parkinson’s prognosis and diagnosis system based on EEG  
  *A Soria-Frisch*

12:15-14:00 Lunch and General Assembly

14:00-14:45 **Keynote 4 – Arousal systems: the origin of the waking EEG**  
*Clifford Saper*

14:45-16:15 **Symposium 4 – EEG-vigilance regulation (Chair: Ulrich Hegerl)**

- Assessment of EEG-Vigilance using the VIGALL algorithm  
  *Christian Sander*
- CACNA1C gene variation is linked to EEG-vigilance regulation  
  *Philippe Jawinski*
- Assessment of EEG-based vigilance regulation as early predictor for antidepressant pharmacotherapy  
  *Frank Schmidt*
Conference Program

EEG vigilance in borderline personality disorder

Lucas Kramer

16:15-16:45 Coffee break and Poster Viewing

16:15-18:00 **Oral Presentations Session 3**

Placebo-controlled clinical and polysomnographic studies on the acute and chronic effects of electroacupuncture in primary insomnia

*Gerda Saletu-Zyhlarz*

Cordance and REM density derived from REM Sleep as Biomarker for Treatment Response in Depression after Antidepressant Medication – a Follow-up study

*Marcel Pawlowski*

Placebo-controlled EEG topography/tomography and psychometric studies on the acute and chronic effects of electroacupuncture on daytime vigilance in primary insomnia

*Bernd Saletu*

Polysomnographic correlates of subjective sleep onset

*Frank Pillmann*

18:00-20:00 **Poster session and drinks**

(note that the posters will be presented in the conference hall from Friday morning until Sunday noon)
**Sunday September 28th (Venue II)**

8:00-8:30 Coffee light-breakfast

8:30-10:00 **Symposium 5 - Novel IPEG Animal Pharmaco-EEG Guidelines Framework and outline of the novel IPEG animal pEEG Guidelines (Chair: Pim Drinkenburg)**

Framework and outline of the novel IPEG animal pEEG Guidelines  
*Pim Drinkenburg (Janssen Research & Development, Belgium)*

Mouse pharmaco-EEG studies: methodologies and findings for AEP studies (Title to be confirmed in abstract)  
*Jesper Frank Bastlund (Lundbeck, Denmark)*

Rat pharmaco-EEG studies: multi-channel methodology (Title to be confirmed in abstract)  
*Tomas Palenicek (Prague Psychiatric Center, Czech Republic)*

Primate pharmaco-EEG studies: methodologies for recording and analysis in marmosets (Title to be confirmed in abstract)  
*Ingrid Philippens (Biomedical Primate Research Center, The Netherlands)*

Translational aspects of animal EEG studies in the IMI PharmaCog Consortium for studies on Alzheimer’s Disease (Title to be confirmed in abstract)  
*Prof. Claudio Babiloni (University of Foggia, Italy) to be confirmed*

10:00-10:45 **Keynote 5 – Pharmaco-Sleep: 5 Decades of Research**  
*Hartmut Schulz*

10:45-11:00 Coffee break

11.00-12:15 **Symposium 6 (chair: Albena Patroneva)**

n/a  
*Referent*

n/a  
*Referent*

n/a  
*Referent*

12:15-12:30 **Werner Hermann Prize winner announcement**

12:30-13:00 **Farewell and adjourn**  
Pim Drinkenburg (IPEG President)
The sudden passing of Prof. Werner M. Herrmann in May 2002 was a great shock for his friends, colleagues and for everyone who regarded him as a mentor, a sounding board and a sparring partner. The 17th biennial IPEG Conference 2012 coincides with the 10-year anniversary of his passing.

Werner Herrmann was at the foremost a passionate, dedicated scientist, whose quest for excellence was enhanced by his curiosity, his initiative and his drive. He has made significant contributions through his innumerable publications and lectures and he was one of the founding members in the development of the IPEG. He also served several years as the Main Editor of NEUROPSYCHOBIOLOGY (section Pharmacoelectroencephalography), the official journal of the IPEG.

The Werner Herrmann Memorial Grant has been established by PAREXEL International to encourage research in the field of neuropsychophysiology and to promote the knowledge of recent developments and advanced information of the methodology and applications of neurophysiological research in neuropsychopharmacology. The Grant of €5,000 is offered to the best contribution made by a young researcher at the biennial IPEG Conference. Half of the grant is awarded to the winner for the contribution presented at the meeting (poster or oral communication) and the other half is given after a manuscript covering the initial contribution is accepted for publication in NEUROPSYCHOBIOLOGY.
The "International Pharmaco-EEG Society, Association for Electrophysiological Brain Research in Preclinical and Clinical Pharmacology and Related Fields" (IPEG) is a non-profit organisation, established in 1980 and composed of scientists and researchers actively involved in electrophysiological brain research in preclinical and clinical pharmacology, neurotoxicology and related areas of interest.