**MARCH 2014** 

# NEW PROFESSORSHIP FOR: STEFFEN GAIS

Starting from April 1, 2014, Prof. Dr. Steffen Gais has been appointed Professor at the Institute of Medical Psychology and Behavioral Neurobiology.

After his PhD with Jan Born in 2004, Steffen Gais received a post-doc fellowship for Pierre Maquet's lab in Liège. Since 2008 he has been the leader of an Emmy Noether research group at the Ludwig Maximilians University of Munich. Currently, he is the Stand-in Professor of Biological Psychology at the Ludwig Maximilians University of Munich.

In his research, Steffen Gais studies processes of memory consolidation during sleep and wakefulness using EEG, fMRI, pattern classification procedures and pharmacological approaches.

Welcome to our institute!



PROF. STEFFEN GAIS

#### **SARDINIA MEETING 2014**

Our next research retreat in Sardinia will take place from **September 27 to October 1, 2014**. We will head out on Saturday at 18:50 h from Stuttgart and arrive at 20:30 h in Olbia. The return flight leaves on Wednesday at 20:45 h from Olbia so that we will be back in Stuttgart at 22:20 h.

The costs for flights and accommodation will have to be covered by the overhead of single projects. This means that if you are a member of a project of the following people: Jan Born, Niels Birbaumer, Boris Kotchoubey, Hubert Preißl, or Boris Kleber, then please talk to this person whether the Sardinia meeting will be covered for you. If so, please **send an email to Yvonne** (<a href="mailto:yvonne.riexinger@uni-tuebingen.de">yvonne.riexinger@uni-tuebingen.de</a>) as soon as possible and tell her which project/person you belong to. Yvonne will then book your flights. It is possible to stay longer after the meeting (or arrive earlier), but you will have to pay for the costs of the additional nights. Also, you will have to take care of car rentals yourself.

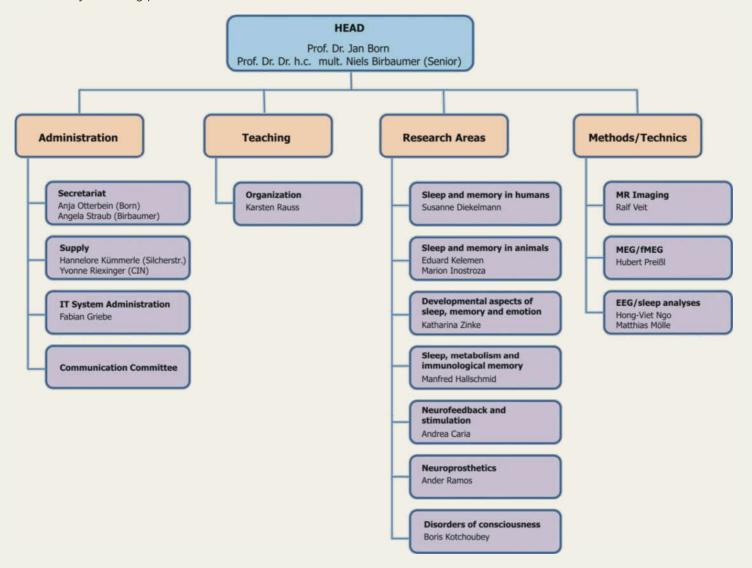
Information on the scientific program will be provided in due course. We are looking forward to an inspiring and fun meeting and hope to see you all in Sardinia!



## ORGANIZATION OF THE INSTITUTE

At our last Sardinia meeting, we had several useful suggestions to improve the communication and interactions within our institute. One of those major suggestions was to set up an **organigram** outlining the internal organization of the institute including important contact persons. This organigram has now been constructed and will be online on our website in the next few days. In addition to the schematic overview, the website will include more specific information on the single areas of interest. So please check the website!

If you have any questions or suggestions on the internal organization, for example if you are not included in any of the research areas but want to be included, please contact the communication committee. This organigram is really a starting point and will be refined in the course of time.



Schematic overview of the internal organization of the institute



#### ■ KINDERSCHLAFLABOR

The developmental group for research on sleep, memory, and emotion has a new website separately from the institute's main page. It gives an overview about the research and the team at the "Kinderschlaflabor" and is mostly designed for parents who want to know more about our studies. But of course everybody is welcome to visit us at:

#### www.kinderschlaflabor-tuebingen.de

We will continue working on the website and fill it with more information – so feedback is highly welcome. A special thanks to Hannes for designing and building the page!

### INSTITUTE COLLOQUIUM

Our institute colloquium, formerly known as "Brezelkolloquium", has been successfully transformed into a new format. The first four colloquia were very well attended, with 30-40 people being present every time to enjoy stimulating talks and lively discussions. This new colloquium is certainly a great gain for our institute. We would like to thank everyone for their contributions.

If you want to present something in the colloquium, please send an email to Susi (<a href="mailto:susanne.diekelmann@unituebingen.de">susanne.diekelmann@unituebingen.de</a>).

Date: Every first Wednesday of the month

Time: 17:00 - 18:00 h

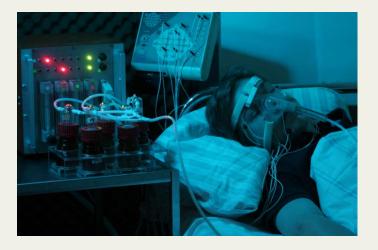
Place: Meeting room Silcherstraße

Next Colloquium on the 2<sup>nd</sup> of April. Save the date!

#### LAB VISIT: CIN

The sleep and memory group at CIN will host our institute's very first internal Lab Visit. These Lab Visits are intended to get to know the work of the other group members and to get a glimpse of how this work is actually performed "onsite". These visits will also be a great opportunity for discussions and ideas for possible collaborations.

The first Lab Visit will take place on April 22, from 15:00 – 17:00 h, at the CIN. You will have the chance, for example, to see how sleep studies with memory reactivation by odors are performed in our lab. More information on the program will be provided soon. If you want to participate in the Lab Visit or if have any questions, please contact Susi (susanne.diekelmann@uni-tuebingen.de).



# MEASURMENTS IN SCIENCE. OUR LATEST PUBLICATION (NOV. 2013 – MARCH 2014)

- Kelemen E, Behrendt M, Born J, Inostroza M. (2014 Mar) Hippocampal corticosterones impairs memory consolidation during sleep but improves consolidation in the wake state. *Hippocampus*
- Besedovsky L, Linz B, Born J, Lange T. (2014 Mar) Mineralocorticoid receptor signaling reduces numbers of circulating human naïve T cells and increases their CD62L, CCR7 and CXCR4 expression. Eur J Immunol
- Huber R, Born J (2014, March). Sleep, synaptic connectivity, and hippocampal memory during early development. Trends Cogn Sci
- Kotchoubey B (2014, Feb). First love does not die: A sustaining primacy effect on ERP components in an oddball paradigm. Brain Res
- Iwen KA, Scherer T, Heni M, Sayk F, Wellnitz T, Machleidt F, Preissl H, Häring HU, Fritsche A, Lehnert H, Buettner C, Hallschmid M (2014, Feb). Intranasal insulin suppresses systemic but not subcutaneous lipolysis in healthy humans. J Clin Endocrinol Metab
- Rea M, Rana M, Lugato N, Terekhin P, Gizzi L, Brötz D, Fallgatter A, Birbaumer N, Sitaram R, Caria A (2014, Jan). Lower Limb Movement Preparation in Chronic Stroke: A Pilot Study Toward an fNIRS-BCI for Gait Rehabilitation. Neurorehabil Neural Repair
- Birbaumer N (2014, Jan). Neural signatures of modified memories. *Neuron*
- Rihm JS, Diekelmann S, Born J, Rasch B (2014, Jan) Reactivating Memories during Sleep by Odors: Odor specificity and associated changes in sleep oscillations. *J Cogn Neurosci*
- Binder S, Rawohl J, Born J, Marshall L (2014, Jan) Transcranial slow oscillation stimulation during NREM sleep enhances acquisition of the radial maze task and modulates cortical network activity in rats. *Front Behav Neurosci*
- Arns M, Heinrich H, Strehl U (2014, Jan). Evaluation of neurofeedback in ADHD: The long and winding road. Biol Psychol
- Ruiz S, Buyukturkoglu K, Rana M, Birbaumer N, Sitaram R (2014, Jan). Real-time fMRI brain computer interfaces: Self-regulation of single brain regions to networks. *Biol Psychol*
- Birbaumer N, Gallegos-Ayala G, Wildgruber M, Silvoni S, Soekadar SR (2014, Jan). Direct brain control and communication in paralysis. *Brain Topogr*1
- Feld GB, Lange T, Gais S, Born J (2013, Dec) Sleep-dependent declarative memory consolidation unaffected after blocking NMDA or AMPA receptors but enhanced by NMDA coagonist D-cycloserine. Neuropsychopharmacology
- Borquez M, Born J, Navarro V, Betancourt R, Inostroza M (2013, Dec). Sleep enhances inhibitory behavioral control in discrimination learning in rats. *Exp Brain Res*
- Hege MA, Stingl KT, Ketterer C, Häring HU, Heni M, Fritsche A, Preissl H (2013, Dec). Working memory-related brain activity is associated with outcome of lifestyle intervention. *Obesity*
- Sonanini A, Stingl K, Preissl H, Brändle J, Hoopmann M, Kagan O, Wallwiener D, Abele H, Kiefer-Schmidt I (2013, Nov). Fetal behavioral states are stable over daytime - evidence by longitudinal and cross-sectional fetal biomagnetic recordings. J Perinat Med
- Inostroza M, Brotons-Mas JR, Laurent F, Cid E, de la Prida LM (2013, Nov). Specific impairment of "what-where-when" episodic-like memory in experimental models of temporal lobe epilepsy. *J Neurosci*
- Frank S, Linder K, Fritsche L, Hege MA, Kullmann S, Krzeminski A, Fritsche A, Schieberle P, Somoza V, Hinrichs J, Veit R, Preissl H (2013, Nov). Olive oil aroma extract modulates cerebral blood flow in gustatory brain areas in humans. *Am J Clin Nutr*