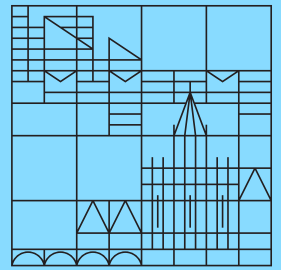




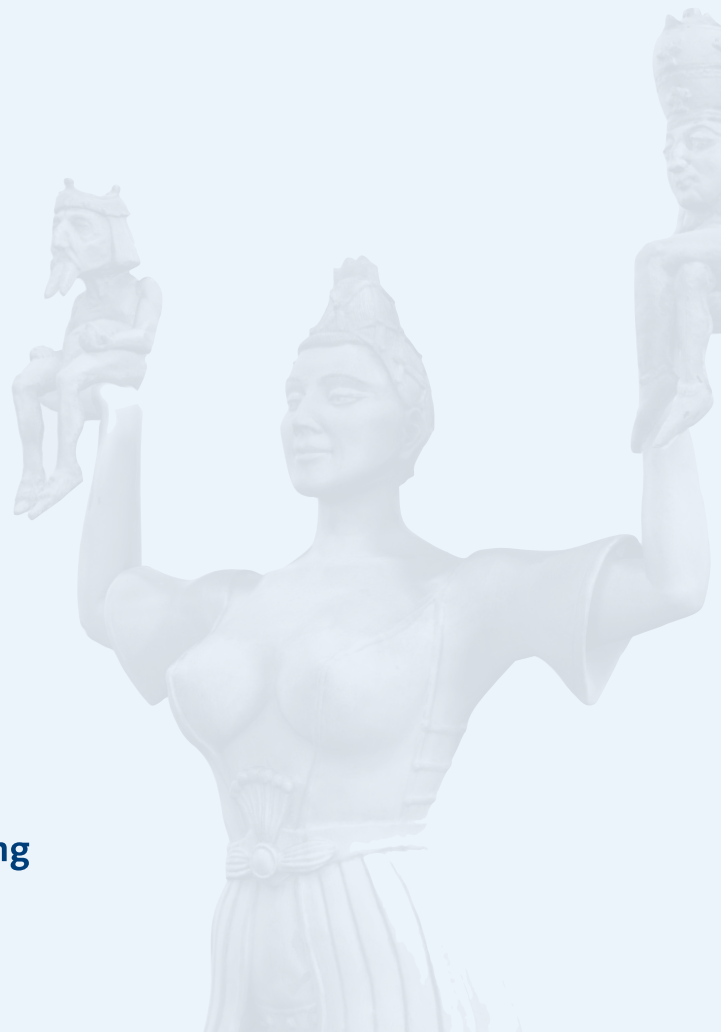
Universität
Konstanz



Changing People, Changing Brains

– Challenges for Interdisciplinary Research
on Human Learning and Development
Across the Life-Span.

**Konstanz, April 8-10, 2010
Germany**





Changing People, Changing Brains

A characteristic feature not only of modern life but also of the ontogenetic development of each individual person is change. Throughout life, human beings need to adapt to rapidly changing environments and undergo various transitions. Periods of change can be critical for mental health, particularly when adaptation fails.

Furthermore, rapidly changing environments also pose additional risks, since adaptation has to happen more quickly and often without support from stable external structures. On the brighter side of this issue is a growing insight that appropriate modifications of the

environment as well as training programs focusing on the individual can hold big opportunities: They may foster resilience, support the capacity to adapt and ameliorate clinical outcomes in psycho-social and neurological rehabilitation.

This conference promotes an integrative approach, which links factors of change to the neural bases of learning and the neuro-psychological and behavioral consequences.

Keynote Lecturers

Prof. Steven Hillyard, University of California, San Diego, USA:
The neural basis of cognitive functions

Prof. Mike Merzenich, University of California, San Francisco, USA:
Training and cortical plasticity

Prof. Ulrich Schnyder, University of Zürich, Switzerland:
Adaptive and maladaptive responses to traumatic life events



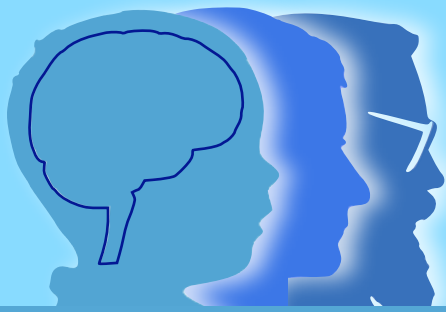
Scientific Program

Thursday, April 8

Friday, April 9

Saturday, April 10

9		Welcome Remarks	Keynote 3: Ulrich Schnyder
		Keynote 1: Steven Hillyard	
10	Workshops & Paper Sessions Connecting young researchers with senior scientists	Symposium 1 Neural Basis of Adaptation and Learning	Symposium 4 Biopsychological Interventions in Psychological Disorders
11			Coffee Break
12			Symposium 5 Childhood Environment and Mental Health
13	Lunch	Keynote 2: Mike Merzenich	
14	Workshop 1 Trauma and Adaptation Workshop 2 Markers of neural plasticity		Lunch
15		Coffee Break	Symposium 6 Causes and Consequences of Traumatic Stress
16		Symposium 2 Emotional Factors of Learning and Adaptation	Coffee Break
17	Registration	Roundtable 1 Adapting to Changing Environments- what does Neuroscience add=	Roundtable 2 Perfect Environment, Perfect Health? - Challenges for Science today
18			Outcome and open questions
19			Poster Presentations
20		Welcome Reception	Conference Dinner



Young Investigator Travel Award

Connecting young researchers with senior scientists

Sixteen travel awards for junior researchers:

Junior scientists are encouraged to apply for the Zukunftscolleg and Volkswagen Foundation Travel Awards. This Travel Award will cover all expenses related to conference participation (travel, accommodation, etc.) for 16 outstanding young scientists, up to 1.000 € each.

Award winners will receive certificates and will be announced on the conference webpage. They will be full participants in the conference and will present their work in symposia or poster sessions. Additionally, they will have the opportunity to meet and discuss their work with a group of mentors (eminent senior scientists in their fields) in two pre-conference workshops. Each of these workshops will be hosted and mentored by three selected senior scientists with an outstanding reputation. The goal of these sessions will be to provide helpful feedback and advice to the junior scientists for the continuation of their research. The six best submissions will also be given the opportunity to present their work during the regular symposia. The remaining ten from this pool of young researchers will present their papers during the poster session on the last day of the conference.

Mentored Pre-Conference Workshops Workshop 1: Trauma and Adaptation

Traumatic stress is a common experience all over the globe, from sexual abuse to natural catastrophes and war. Insight has burgeoned in recent years into the mechanisms of individual change after exposure to traumatic stress and into risk and resilience factors. Research is providing better understanding of the mediators of adaptation or maladaptation on multiple levels, such as neurobiological and cognitive mechanisms.

In order to improve our understanding of responses to traumatic stress and to support individuals in their adaptive response, future researchers especially need to have strong interdisciplinary skills and knowledge to investigate the broad impact of traumatic stress on diverse but interacting levels. This workshop will bring together young scientists with three outstanding established researchers who have dedicated their work to specific aspects of this question, have published seminal work on methodological innovation, and who have strong interdisciplinary interests. Our aim is to encourage young researchers to find their way into the fascinating interdisciplinary research activities in the field of trauma and adaptation.

Senior researchers: Prof. Judith Cohen, University of Pittsburgh, USA (inquired); Prof. Frank Neuner, University of Bielefeld, Germany (confirmed); Prof. Dominique DeQuervain, University of Zurich, Switzerland (inquired)

Workshop 2: Markers of Neural Plasticity

Neural plasticity in humans has been widely reported by various authors. Whereas in some approaches *plasticity* is documented with electromagnetic brain source localization measures as Euclidian distance and changes of dipole moment of single equivalent current dipoles in a homogeneous sphere, more recent work relies on spatial filter techniques projecting brain activity onto virtual electrodes. These can be used to investigate plasticity using both time domain and frequency domain methods (e.g. coherence measures, wavelet analysis) to investigate functional relationships between brain areas. The goal of this workshop is to examine a variety of markers of neural plasticity and explain their application to participating young scientists.

Senior researchers: Prof. Edward Taub, University of Alabama, Birmingham, USA (confirmed); Prof. Joachim Liepert, University of Hamburg, Germany (confirmed); Prof. Herta Flor, Department of Cognitive and Clinical Neuroscience, University of Heidelberg and Central Institute of Mental Health, Mannheim, Germany (confirmed)



Young Investigator Travel Award

Who can apply?

Anyone who is a junior scientist or young researcher. As rough criteria for this purpose, a junior scientist is someone who is not much beyond 40 years of age and who holds no permanent position in a university or research institution.

Gender aspects and child care during the conference

Among the 16 selected junior scientists, it is anticipated that women and men will be equally represented. Every effort will be made to reduce potential obstacles that may prevent young scientists from attending. Therefore, free child care will be provided for children up to an age 10 travelling with all attending scientists (not just the 16 award winners).

How to apply

Award winners will be identified via a web-based process. The applicants will be evaluated based on the quality of their submission and the relevance of the submission to conference and workshop topics. Applications are to be submitted as single pdf file via email by January 15, 2010, to the conference secretary (changing.brains@uni-konstanz.de). The application should include: (1) Motivation letter (max 1 page); (2) Description of current research project that will be presented and discussed in workshop and conference (background, own preparatory work, methods, results, discussion; max. 2 pages); (3) CV and list of publications (max 2 pages).

A selection committee consisting of the mentors of the pre-conference workshops and the conference organizing committee will score the applications on the following categories:

- (1) relevance of the application for the topic of the workshop and conference,
- (2) quality and creativity of the applicant's research and publications,
- (3) interdisciplinary interest as outlined by publications, research projects, and affiliations.

Decisions will be communicated by February 28, 2010.

