Aalto University

# BRAHE Meeting
# March 9th, 2012
# Biomedicum Helsinki

UNIVERSITY OF HELSINKI

**Time:** March 9th, 2012, at 13:00 – 20:00 o'clock
**Place:** Biomedicum Helsinki 1, Haartmaninkatu 8, Lecture room 1

**PROGRAM**

**13.00-13.05 Opening of the meeting, Synnöve Carlson**

**13.05-14:35 Collaborative brain research projects In Aalto University (AU) and University of Helsinki (UH)** (10 + 5 min)

Chair: Synnöve Carlson

1. **Kristina Laaksonen AU/UH:** Effect of afferent input on motor cortex excitability during stroke recovery
2. **Juha Salmitaival AU/UH:** Brain function in Asperger syndrome during natural viewing
3. **Hanna Renvall AU/UH:** Human auditory cortical activation is regulated by the TRAPPC9 and ROBO1 genes
4. **Satu Lamminmäki AU/UH:** Human ROBO1 regulates interaural interaction in auditory pathways
5. **Anni Simula AU/UH:** Long-term phonological learning by overt repetition begins at the level of word form
6. **Andrey Zhdanov AU/UH:** Multi-channel system for combined magnetoencephalography and ultra-low-field MRI

14.35 -15.00 Coffee

**15.00-16.30 Examples of brain research projects at AU and UH** (10 + 5 min)
Chair: Mikko Sams

1. **Leonard Khirug UH:** Advancing neuroscience from reduced preparations towards in vivo two-photon microscopy in anesthetized or awake rodents
2. **Petri Ala-Laurila UH:** Nonlinear integration of sparse signals in the inner retina sets the absolute limit of vision
3. **Lauri Nurminen AU:** Bridging the gap between single neurons and perception: contextual modulation in primary visual cortex and human perception
4. **Satu/Matias Palva UH:** Inter-areal synchronization and local neuronal dynamics support cognitive states in the human brain
5. **Elvira Brattico UH:** Musical expertise shaping auditory-limbic connectivity
6. **Enrico Glerean AU:** fMRI phase synchronization as a measure of dynamic functional connectivity

**16.30 – 17.45 Poster session**

## 16.30 – 17.45 Poster session

| Presenter | | University | Poster title |
|---|---|---|---|
| Airaksinen | Katja | Helsinki | Cortical oscillatory activity of DBS treated Parkinsonian patients |
| Bogert | Brigitte | Helsinki | Musical expertise shapes auditory cortex connectivity to emotion-linked areas during music listening |
| Gogulski | Juha | Helsinki | Transcranial magnetic stimulation of the prefrontal cortex impairs tactile temporal discrimination |
| Gold | Benjamin | Helsinki | The Effects of Musical Pleasure on Dopaminergic Learning |
| Guzman | Jessica | Aalto | State-dependent TMS effects in the visual cortex after visual adaptation: a combined TMS-EEG study |
| Halko | Marja-Liisa | Aalto | Modulation of risk-taking behaviour and related brain activation during music listerning |
| Karvonen | Leena | Aalto | Sequence and Priming Effects in the Neural Dynamics of Picture Naming |
| Koskinen | Miika | Aalto | Finding Consistencies in MEG Responses to Repeated Natural Speech |
| Kuuluvainen | Soila | Helsinki | Domain specificity of speech processing: A combined MEG-EEG study |
| Kätsyri | Jari | Aalto | Reward- and aversion-related fMRI responses during video game playing |
| Lahnakoski | Juha | Aalto | Perspective Taking Modulates Intersubject Synchronization of Brain Activity during Natural Viewing |
| Liljeström | Mia | Aalto | Cortico-cortical connectivity differs for action versus object naming |
| Lioumis | Pantelis | Aalto | Cortical Excitability Changes during Stroke Recovery with navigated TMS |
| Mandel | Anne | Aalto | Binaural interaction and pitch perception as contributors to the octave illusion |
| Mera-Adasme | Raul | Helsinki | Computational study of the zinc binding site of the wild-type copper-zinc superoxide dismutase and its ALS-linked mutant H46R |
| Metsomaa | Johanna | Aalto | Uncovering Independent Neural Components from Highly Artifactual EEG Data |
| Mäkelä | Niko | Aalto | Comparing object and action naming in localization of speech-related cortical areas: an nTMS study |

| Presenter | | University | Poster title |
|---|---|---|---|
| Piitulainen | Harri | Aalto | Coherence between MEG and motor-action-related peripheral signals for functional mapping of the sensorimotor cortex |
| Rouhinen | Santeri | Helsinki | Cortical gamma-band oscillations reflect perceptual binding |
| Salmela | Viljami | Helsinki | Linear trade-off between capacity and precision in working memory |
| Seppä | Mika | Aalto | Voxlab - a visualization tool for multi-modal inter-subject neuroimaging |
| Sharifian | Fariba | Aalto | Bridging the gap between single voxels and neural systems: Adaptation decorrelates neural activation pattern in visual cortex |
| Simula | Anni | Aalto | Long-term phonological learning by overt repetition begins at the level of word form |
| Stevenson | Claire | Aalto | Task-related fMRI connectivity modulations during action and object naming |
| Suomala | Jyrki | Laurea | Value Signals in the Human OMPFC Network Distinguish Maximizers from Satisficers during Goal Decision-Making |
| Särkkä | Simo | Aalto | Removal of Physiological Noise from BOLD fMRI Data with DRIFTER Algorithm |
| Vanni | Simo | Aalto | Bridging the gap between computational models and neural systems: Testing neural population models with functional magnetic resonance imaging |
| Varendi | Kärt | Helsinki | Pre-Operative Fasting is Neuroprotective in a Rat Stroke Model |
| Vuontela | Virve | Helsinki | Attentional modulation of amygdala activity in 7-11-year-old children |
| Zhdanov | Andrey | Aalto | Linking behavior and magnetoencephalographic recordings with video |

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# AIVOTUTKIMUS VAUHDISSA
## 9.3.2012 klo 18-20
## Biomedicum Helsinki, Luentosali 1
## Haartmaninkatu 8

**18.00 – 20.00 Yleisötilaisuus ”Aivotutkimus vauhdissa!”** (30 + 10 min)
Puheenjohtaja: Kimmo Alho

**18.00 - 18.30 Matti Haltia UH:** Hermoston tutkimusta Aristoteleesta Alzheimeriin

**18.40 - 19.10 Eero Castrén UH:** Muovautuvat aivot

**19.20 - 19.50 Riitta Hari AU:** Mitä aivokuvantaminen kertoo aivoista ja mielestä