

4th INCF National Node of Finland Workshop on Neuroinformatics

Brain Dynamics for Learning

Time: Friday, May 20th, 2011

Place: Neuroscience Center, Viikinkaari 4 (Seminar room B105), Helsinki

Purpose of the workshop: Plasticity, formation of memories, and learning are fundamental features of living organisms. This workshop aims to understand the brain dynamics for learning and integrates different fields of neuroscience, from cell and molecular levels to behavioral and cognitive levels, and employs multidisciplinary approaches combining experimental, computational, and theoretical techniques. This workshop also discusses about the future needs of neuroinformatics tool development and funding opportunities.

Workshop program

09.00-09.30 Registration, poster hanging up, and coffee

09.30-10.00 [Marja-Leena Linne](#): Opening

[Malin Sandström](#) (International Neuroscience Coordination Facility, Stockholm)

Vision, strategy, and goals of INCF in 2011-2015

Session 1 *Session 1: Micro and macro domains*

10.00-10.30 [Sari Lauri](#) (Univ. of Helsinki, Neuroscience Center):

Learning in developing synapses and networks of neurons

10.30-11.00 [Kestutis Gurevicius](#) (Univ. of Kuopio, A.I. Virtanen Institute for Molecular Sciences)

Dynamics of electrical brain activity as index of learning and memory in rodents

11.00-11.15 Break

11.15-11.45 [Matias Palva](#) (Univ. of Helsinki, Neuroscience Center):

Network oscillations and working memory

11.45-12.15 [Janne Kujala](#) (Univ. of Jyväskylä, Dept. of Mathematical Information Technology):

Modeling cognitive learning: Bayesian methods for optimization of learning results

12.15-12.30 Discussion

12.30-13.30 Lunch and poster viewing

Session 2 *Keynote lecture*

13.30-14.30 [Anders Lansner](#) (Royal Institute of Technology, Stockholm):

Multi-scale modeling of memory and recall in the cortex using super-computers

14.30-15.00 Coffee and poster viewing

Session 3 *Session 2: Neurotechnology aspect*

15.00-15.30 [Harri Valpola](#) (Aalto University and ZenRobotics Ltd.):

Neurotechnology for biomimetic learning robots

15.30-15.45 Discussion

15.45-16.30 Discussion about promotion and funding of neuroinformatics pilot projects in Finland

Chaired by: [Ulla Ruotsalainen](#), [Mika Tirronen](#)

16.30- Wine and cheese

Prize for best poster
