



Postgraduate Training Network in Biotechnology of Neurosciences (BioN)

Progress report

Progress report

- Curriculum
- BioN Neurobiotech Centre
- BioN Webpages
- Web classes
- Library
- Advisory Board • Management
- Local administration acknowledgement of BioN and cooperation across the BioN institutions.
- 2 new partners
- More than 100 students participated in all educational events of BioN

Curriculum: courses

- 12 new courses developed for PhD level
- 11 modular courses conducted in PC universities
- Modular courses are serving as a pilot model for presentation of new PhD curriculum with ECTS adaptation, teaching in English, e-learning in RF education

Schedule of courses:

Date	Title	Place/Organizers	days	Credits
17.11.2010	Psycho-neuro -physiology of conscience. Visual perception.	SFU, MSU	2	0,5
02.02.2011	Neurogenetics & Modern methods of behavior registration	Lomonosov MSU	4	2,0
24.02.2011	Neuroeconomics	MSU, SPU	3	1,0
21.03.2011	Genetic constructing in neurobiology	UNN	3	1,0
07.04.2011	Cellular mechanisms of information transfer: neuronal and synaptic plasticity	SPU, Ioffe PTI	3	1,0
10.05.2011	Neurophysiological mechanisms of perception	SFU, Kogan' Research Institute of Neurocybernetics	3	1,0
14.06.2011	Scientific Writing in English	Helsinki University, Lomonosov MSU	2	0,5
16.06.2011	Modern methods of higher mental functions studies in human by using of psychophysiological methods. Brain-computer interfaces.	Lomonosov Moscow State University	3	1,0
14.09.2011	Background techniques for neurophysics: dynamical system theory, statistical physics, wavelet analysis	Ioffe' PTI, SPbU	4	1,0
19.10.2011	Noninvasive methodologies to study whole brain function (includes MEG, TMS, OI, fMRI)	SPU	4	1,0
30.11.2011	Synaptic Functions of Cell Adhesion and Extracellular Matrix Molecules	UNN, IIT	3	1,0
06.02.2012	Optical methods of registration of neuronal activity	IHNA and MSU	3	1,0

Curriculum: Schools

- 1st Intensive school in Cognitive Neurotechnologies 24-29 September 2010
<http://school.neurobiotech.ru/en>
- 2nd Intensive school in Computational Neurotechnologies 3-7 October 2011
<http://www.school2.neurobiotech.ru/en>
- 3^d Intensive school in Cellular and Genetic Neurotechnologies August 2012

Seminars “Neurotechnology “as a part of the NeuroBioTech Centre

Date	Title	Lecturers	Place
09.12.2011	Source space connectivity analysis based on MEG data	Dr. Matias Palva	SPbU
06.10.2011	Origin of cortical slow waves	Igor Timofeev	Lomonosov' Moscow State University
07.09.2011	Neuroeconomics	A. Shestakova, V. Klucharev, O. Klepikov, M. Chernova	SFU
06.09.2011	Modern Teaching Methodology	Evgeny Aydarkin	SFU
15.08.2011	ERP and eye-tracking studies of language, attention and social development in low and high-risk infants: Audiovisual speech processing in the first year of life	Elena Kushnerenko	SPbU
23.06.2011	Imaging surround modulation in human visual cortex	Simo Vanni (Aalto University)	Lomonosov' Moscow State University
24.05.2011	Cognitive space and brain rhythms	Georgy Ivanitsky (IHNA)	SPU
19.05.2011	The brain on-line: reality and fantasy	Alexander Kaplan (MSU)	UNN
16.05.2011	Non-linear dynamics of spike generation in neurons and its implications for neural activity	Dr. Boris Gutkin, Ecole Normale Superieure - Paris	Saint-Petersburg State University
17.03.2011	Career in Neuroscience	Yury Shtyrov, (MRC-CBU, Cambridge, UK) и Vasily Klucharev (Erasmus Rotterdam University).	SPbSU
29.12.2010	Neuromarketing: Pro & Contra	Vasily Klucharev (Erasmus Rotterdam University)	Saint-Petersburg State University
17.12.2010	Use of modern methods in analysing MEG and EEG data in cognitive neurobiological studies of language and speech	Yury Shtyrov (MRC-CBU)	Saint-Petersburg State University
01.12.2010	Current achievements and problems in the study of the brain extracellular matrix	Alexander Dityatev (IIT)	Nizhnij Novgorod University
21.10.2010	Genetic models of dopamine dysfunction	Raul Gainetdinov (Italian Institute of Technology)	Lomonosov' Moscow State University

Hands-on placements

- IIT accepted 2 PhD students from SPbU and MSU
- ENS de Paris - 2 PhD students from MSU, 1 from IPTI
- University of Umeo - 3 PhD students from MSU, IHNA and IPTI
- Courses in HU Electrophysiological applications in neurophysiology – 1 students from IPTI
- HU – 1 PhD student from SPbU
- Teachers from MSU and SPbU participated in fMRI school at Aalto University 4-6.04.2011

Web, Equipment and library

- 4 web-classes in SPbU, MSU, UNN and SFU were created for on-line seminars and courses of BioN curriculum
- 55 books were purchased and available on sites of PC universities: <http://www.neurobiotech.ru/en/lib>
- Website aimed for communication and dissemination is fully functioning from the beginning of BioN project

www.neurobiotech.ru

Evaluation and quality assessment

- Annual Student meetings & evaluation meeting:

1st on 29.09.2010 in Becasovo school

2nd on 7.10.2011 in NN school

3d meeting scheduled for August 2012

- Annual project evaluations:

1st –Jan 2012

2nd – summing up by PM meeting on 20.12.2011

- Courses and school evaluations – regularly

All evaluation reviews are available at the website:

http://www.neurobiotech.ru/en/ev_survey

Calendar of BioN events

- BioN symposium in Kaluga on 23.09.2010
- Seminar "Coherent curriculum for 3-cycle education: Bachelor/Master/PhD" in Becasovo on 24.09.2010
- Course 'Teaching in English' in MSU on 18.05.2010 in SPbU on 17.03.2011
- Course "Scientific writing in English" in MSU on 15.06.2011
- Seminar "Modern teaching methodology" in SFU on 6-7.09.2010