BioN report: the intensive course "Cellular mechanisms of information transfer: neuronal and synaptic plasticity", April 7-9, SPU, Saint Petersburg, Russia

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During the intensive course "Cellular mechanisms of information transfer: neuronal and synaptic plasticity" we attended the lectures dedicated to synaptic plasticity problems, examples of plasticity involving in motor cortex development and neuromodeling.
Intensive course contains three interacting modules:

1. "Plastic neurons: global and site specific changes". In this module lectures dedicated different mechanisms of plasticity were read. Dr. Ivan Pavlov describes work of receptors, ionic channels, and intracellular proteins and its cooperation in plasticity process. Dr. Anton Chyzhov gives information about different neuron models and their application. Such style of lectures reading, when molecular biology followed by computational modeling, helps to understand interaction between different paradigms if brain research.
2. "Morphological plasticity". Dr. Pavel Zykin reports about organization of the neocortex, it's development and mechanisms of different interneurons types. In this module were given information about role of radial glia in neuron progenitor cells migration and differentiation, cortex modular organization and it's regulation, and neuron networks within neocortex development.
3. "Plasticity and information processing in normal brain function and disease". Structure of this module is like first module's. In this module information about plasticity in normal and pathological brain was given.

The course was very useful and interesting and encouraging our fundamental knowledge and we would like to thank Dr. Ivan Pavlov, Dr Anton Chyzhov, and Dr. Pavel Zykin. Also, we would like to thank Viktoria Moiseeva, Anna Shestakova and BioN for organization of the meeting.

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