

BioN programme of additional education "Biotechnology in Neurosciences"

- Purpose: to increase skills of specialists working in the field of neuroscience and related fields

The Program is based on the three main modules:

- Cognitive Neuroscience
- Cellular & Molecular Neuroscience
- Computational Neuroscience & Math Methods

Each branch of education must have one hundred hours or more.

Participants may choose one branch, and at the end of the training they will receive a diploma of additional education

Courses of module “Cognitive Neuroscience”

- Neurogenetics & Modern methods of behavior registration
- Scientific Writing in English
- Psycho-neuro -physiology of conscience. Visual perception.
- Neuroeconomics: Brain makes decisions.
- Neurophysiological mechanisms of perception
- Modern methods of higher mental functions studies in human by using of psychophysiological methods. Brain-computer interfaces.
- Noninvasive methodologies to study whole brain function

Courses of module “Cellular & Molecular Neuroscience”

- Neurogenetics & Modern methods of behavior registration
- Scientific Writing in English
- Cellular mechanisms of information transfer: neuronal and synaptic plasticity
- Genetic constructing in neurobiology
- Optical methods of registration of neuronal activity
- Synaptic Functions of Cell Adhesion and Extracellular Matrix Molecules

Courses of module “Computational Neuroscience & Math Methods”

- Scientific Writing in English
- Background techniques for neurophysics: dynamical system theory, statistical physics, wavelet analysis
- Neuromodeling: Neuroanimatic systems
- Data processing in neuroscience

Information we need

1. Annotation of course
2. Schedule of lectures and practices
3. List of recommended literature
4. Questions to exam/ students' work
5. Names and affiliations of lectures