

NEUROSCIENCE

October 30, 14:30 – 16:30

Gallery Hall

Session 1

Chairs: Philipp KHAITOVICH and Yulong LI

20 min **Yangang SUN** *Institute of Neuroscience, Center for Excellence in Brain Science and Intelligence Technology, Chinese Academy of Sciences, China*
Neural mechanism of itch sensation

20 min **Konstantin ANOKHIN** *Institute for Advanced Brain Studies, Lomonosov Moscow State University, Moscow, Russia*
Neurobiology of life-long traumatic memory

20 min **Hong QING** *Institute of Space Biology and Medical Engineering, Beijing Institute of Technology, China*
Differential roles of central and peripheral cathepsin e in promoting neuroinflammation in Alzheimer's disease

20 min **Alla SALMINA**, V.S. Sukhorukov, A.V. Stavrovskaya, S.N. Illarioshkin *Research Center of Neurology, Russia*
Mechanisms of aberrant brain plasticity in neurodegeneration

20 min **Pavel MUSIENKO** *Life Improvement by Future Technologies Center "LIFT", Moscow; St Petersburg State University, St Petersburg, Russia*
Directed neuroplasticity after spinal cord injury

NEUROSCIENCE

October 30, 16:50 – 19:10

Gallery Hall

Session 2

Chairs: Konstantin ANOKHIN and Hong QING

20 min **Yongyong SHI** *Shanghai Jiaotong University, China*
Genomic studies of schizophrenia

20 min **Philipp KHAITOVICH** *Skoltech, Moscow, Russia*
Molecular profiling of psychiatric disorders

20 min **Xiaohui WANG** *Changchun Institute of Applied Chemistry, China*
The chemical biology of psychoactive substances

20 min **Vladimir VIGONT**¹, D.A. Grekhnev¹, O.S. Lebedeva^{2,3}, A.N. Bogomazova^{2,3}, M.A. Lagarkova^{2,3}, E.V. Kaznacheyeva¹ ¹*Institute of Cytology, Russian Academy of Sciences, St Petersburg;* ²*Lopukhin Federal Research and Clinical Center of Physical-Chemical Medicine, Federal Medical Biological Agency, Moscow;* ³*Center for Precision Genome Editing and Genetic Technologies for Biomedicine, Lopukhin*

Federal Research and Clinical Center of Physical-Chemical Medicine, Federal Medical Biological Agency, Moscow

Application of iPSCs technologies to the study of the phenomenon of selective neurodegeneration

20 min **Alan KALUEV (KALUEFF)**, T.G. Amstislavskaya, L. Yang, J. Cui, Yu. Zhang, Ya. Lin, C. Zhao, J. Wang, J. Jiang, V. Bley, H. Cai, K. He, Sh. He, Y. Qin, H. Feng, Yu. Liu, R. Li, Ch. Wang *School of Sciences, Xi'an Jiatong-Liverpool University, Suzhou, China; ITBM, St Petersburg State University, St Petersburg; Moscow Institute of Physics and Technology, Moscow; Institute of Neurosciences and Medicine, Novosibirsk, Russia*

Zebrafish models relevant to complex human brain disorders

20 min **Ekaterina LYUKMANOVA**^{1,2}, M.L. Bychkov², D.S. Kulbatskii², A.B. Isaev², M.P. Kirpichnikov², Z. Shenkarev² ¹*Shenzhen MSU-BIT University, China;* ²*Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Moscow, Russia*

Molecular and cellular mechanisms of action of Ly6/uPAR proteins in the brain

NEUROSCIENCE

October 31, 14:00 – 16:00

Gallery Hall

Session 3

Chairs: Alan KALUEV and Yangang SUN

20 min **Yulong LI** *Peking University, China*

Spying on neuromodulator dynamics *in vivo* by constructing multi-color genetically-encoded sensors

20 min **Dmitry BILAN** *Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia*

Genetically encoded fluorescent redox biosensors for *in vivo* studies

20 min **Alexey SEMYANOV** *Jiaying University, Jiaying, China*

Morphofunctional changes of cortical astrocytes in brain ageing

20 min **Nadezhda BRAZHE**^{1,2}, K.I. Morozova¹, A.B. Tiaglik^{1,2}, A.A. Fedotova^{1,2}, A.R. Brazhe^{1,2}, M.S. Shestopalova², Yu.V. Khramova^{1,2}, A.V. Zalygin², A.A. Bykov³, G.N. Martynov⁴, V.A. Oleinikov², D.S. Bilan², A.V. Semyanov² ¹*Faculty of Biology, Lomonosov Moscow State University;* ²*Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences;* ³*Scientific and Technological Center of Unique Instrumentation, Russian Academy of Sciences;* ⁴*Faculty of Physics, Lomonosov Moscow State University, Moscow*

Metabolic brain imaging with Raman microspectroscopy *in vivo*

20 min **Min XU** *Institute of Neuroscience, Center for Excellence in Brain Science and Intelligence Technology, Chinese Academy of Sciences, China*

Basal forebrain control of adenosine and sleep homeostasis

20 min **Alexander Popov** *Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia*

We are what we eat: how the diet influences astrocyte morphology and functions