BIOENGINEERING OF PROTEINS AND PEPTIDES

October 31, 14:00 – 16:00 Potemkin Hall

Session 1
Chairs: Dmitry Dolgikh, Alexey Fedorov

20 min **Vladimir MURONETZ** *[1]Belozersky Research Institute of Physical and Chemical Biology and [2]Faculty of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow*
S-nitrosylation of proteins: molecular mechanisms and involvement in pathological processes

20 min **Irina MEEROVICH,** N.K. Marynich, A.V. Gavshina, A.P. Savitsky *Federal Research Center "Fundamentals of Biotechnology", Russian Academy of Sciences, Moscow*
Red fluorescent protein TagRFP mutants with reduced immunogenicity for using in fluorescent tumor models

20 min **Aleksey LIPKIN** *Federal Research Centre "Fundamentals of Biotechnology", Russian Academy of Sciences, Moscow*
Development of technologies for the production of recombinant proteins - problems of industrial adaptation and scaling

20 min **Artem KIRICHENKO,** M.L. Bychkov, D.S. Kulbatskii, M.A. Shulepko, O.V. Shlepova, I.N. Mikhaylova, O.S. Burova, I.A. Medyanik, K.S. Yashin, M.P. Kirpichnikov, E.N. Lyukmanova *Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Moscow*
Expression of a nonfunctional variant of a7-nAChR mediates resistance of metastatic melanoma cells to the antitumor protein SLURP-1

20 min **Konstantin ZAYTSEV,** N.S. Bogatyreva *Federal Research Centre "Fundamentals of Biotechnology", Russian Academy of Sciences, Moscow*
Individual codon influence on gene expression

20 min **Natalia PLEKHANOVA[1],** M.S. Yurkova[1], I.B. Altman[2] *[1]Federal Research Centre "Fundamentals of Biotechnology"; [2]MIREA – Russian Technological University, Moscow*
Effect of Nε-acetylation of proteins on on the regulation of metabolic pathway in *Escherichia coli*

BIOENGINEERING OF PROTEINS AND PEPTIDES

October 31, 16:20 – 18:20 Potemkin Hall

Session 2
Chairs: Dmitry Dolgikh, Alexey Fedorov

20 min **Aleksandr EFIMOV[1],** O.V. Meshcheryakova[2], M.A. Bogdanov[3] *[1]Institute of Protein Research, Russian Academy of Sciences, Pushchino; [2]Karelian Research Centre, Russian Academy of Sciences, Petrozavodsk; [3]Laboratory of Intellectual Services and Applications, ITMO University, St Petersburg*
The importance of hydrophobic amino acid residues in the thermal stability of collagens

20 min **Natalia MARCHENKO[1],** V.V. Marchenkov[1], A.K. Surin[1,2], N.V. Kotova[1], A.N. Fedorov[3], A.V. Finkelstein[1], V.V. Filimonov[1], G.V. Semisotnov[1] *[1]Institute of Protein Research, Russian Academy of Sciences, Pushchino; [2]Branch of Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Pushchino; [3]Bach Institute of Biochemistry, Research Center of Biotechnology, Russian Academy of Sciences, Moscow*
Co-chaperonin GroES subunit exchange

20 min **Vitalii BALOBANOV,** A.R. Khairetdinova, N.B. Ilina, N.V. Lekontseva, V.V. Marchencov, O.S. Nikonov, A.O. Mikhaylina *Institute of Protein Research, Pushchino*
Sm-like proteins as a basis for modular protein engineering: options, results, limitations.

20 min **Anna YAGOLOVICH[1,2],** A.A. Isakova[1,2], E.V. Kukovyakina[1], M.P. Kirpichnikov1,2, M.E. Gasparian[1], D.A. Dolgikh[1,2] *[1]Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences; [2]Faculty of Biology, Lomonosov Moscow State University, Moscow*
Development of multimodal fusion proteins for complex effects on tumors and the tumor microenvironment

20 min **Marina SEMENOVA[1],** Z.V. Bochkova[2], O.M. Smirnova[1], N.A. Brazhe[2], G.V. Maksimov[2], M.P. Kirpichnikov[1,2], D.A. Dolgikh[1,2], R.V. Chertkova[1] *[1]Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences; [2]Biological Faculty, Lomonosov Moscow State University, Moscow*
Amino acid substitutions in neuroglobin and cytochrome c affect the electron transfer reaction between them

20 min **Elena RODINA,** E. Bezpalaya, S. Kurilova, N. Vorobyeva *Department of Chemistry, Lomonosov Moscow State University, Moscow, Russia; A.N. Belozersky Institute of Physico-Chemical Biology, Moscow, Russia*
Mitochondrial inorganic pyrophosphatase: structural insight into catalytic properties and regulation