

27 August / Tuesday		
8.00-10.00	Registration and welcome coffee	
9.45-10.00	Opening remarks	
Physics for Aptamers, Aptamers Properties, Structure Analyses, Selection Methods		
10.00-10.30	Steven Benner	Aptamers from Artificially Expanded Genetic Information Systems
10.30-10.45	Alexander Zhigachev	Nearly endless potential of magnetic nanoparticles activated by different magnetic field combinations for diverse theranostic applications
10.45-11.00	Felix Tomilin	Molecular structure restoration of aptamers by Small Angle X-ray Scattering and Computer Simulation
11.00-11.15	Sergey Lyashchenko	The new Fe-Si magnetic nanoparticles for biomedical applications
11.15-11.30	Anton Tarasov	Silicon based device for electrical detection of organic materials
11.30-12.00	Coffee break	
12.00-12.15	Roman Moryachkov	Small-Angle scattering applications to the analysis of aptamer structure and conformational changes
12.15-12.30	Anastasia Shabalina	Electrochemical sensors based on aptamers: theoretical approach and practical implementation
12.30-12.45	Alexander Kolobov	Overview of readers and their application for the study of aptamers
12.45-13.00	Dmitry Veprintsev	New algorithm for HTS SELEX data processing
13.00-13.15	Vasilisa Krasitskaya	The Ca <sup>2+</sup> -regulated photoprotein obelin as a tool for development of DNA and RNA aptamers
13.15-13.30	Anton Bukatin	Microdisk resonators for high-sensitive protein detection in microfluidic devices
13.30-13.45	Transfer to restauraunt	
13.45-15.00	Lunch	
15.00-18.00	Krasnoyarsk city tour	

28 August / Wednesday	
9.00-12.00	<b>National Park Stolby Tour</b>
12.00-14.00	<b>Lunch</b>
14.00-15.00	Transfer to Admiral eco-park
15.00-16.00	Free time
16.00-18.00	<b>Poster session</b>
18.00-21.00	<b>Welcome party</b>

29 August / Thursday		
Aptamers in Diagnostics		
9.00-9.30	Xiaohong Fang	Aptamer Based Liquid Biopsy and Biomarker Discovery for Lung Cancer
9.30-9.50	Petr Denissenko	Magnetic sorting of tumor cells with attached magnetic nanoparticles in a microchannel
9.50-10.10	Chun-Ping Jen	An Aptamer-based Capacitive Sensing Platform for Specific Detection of Lung Carcinoma Cells
10.10-10.30	Ilya Frolov	Screening approaches to identify intermolecular interactions
10.30-11.00	Coffee break	
11.00-11.15	Tatiana Kanyshkova	Optimization of research workflow in drug discovery
11.15-11.30	Vera Spiridonova	Paradigm structure-function on the example of aptamer DNA-thrombin complexes
11.30-11.45	Irina Safenkova	New opportunities of aptamers in assays of mycotoxins
11.45-12.00	Anna Berlina	Application of aptamers for the determination of heavy metals
12.00-12.15	Chandan Narayan	Virus-based SELEX (viro-SELEX) allows development of aptamers targeting
12.15-12.30	Maria Vorobyova	2'-F-RNA aptamers to blood protein biomarkers: development and bioanalytical applications
12.30-12.45	Alena Zuzukina	Dependence of the number of circulating tumor cells on clinical and molecular parameters in breast cancer
12.45-14.00	Lunch	
Aptamers for Therapy		
14.00-14.30	Larry Gold	SOMAmers and SOMAscan: Molecular Snuggling, Binding Specificity, and Proteomics
14.30-14.50	Weihong Tan	The foundation of molecular medicine: A chemical biology approach
14.50-15.10	V. de Franciscis	Aptamers for the selective targeting of therapeutic RNA to cancer cell
15.10-15.30	Alexey Berezhnoy	PD-L1-targeted 4-1BB co-stimulation converts tumor immune suppression into T-cell activation
15.30-16.00	Coffee break	
16.00-16.20	Gerolama Condorelli	The Discovery of RNA-aptamers That Selectively Bind and Inhibit Glioblastoma Stem Cells
16.20-16.40	Maxim Berezovsky	Inhibition of complement dependent cytotoxicity by anti-CD20 aptamers
16.40-17.00	Anna Kichkailo	Tumor Specific Aptamers for Glioblastoma Theranostics
17.00-17.15	Nicola Borbone	G-quadruplex-forming tetra-end-linked DNA aptamers: design, synthesis and application as HIV-1 cell fusion inhibitors
17.15-18.15	River Cruise	
19.00-21.30	Gala dinner and closing ceremony	

30 August / Friday		
9.00-10.00	Transfer from Admiral to KrasSMU	
School: Selection methods of DNA-aptamers for the identification of microorganisms		
10.00-10.40	Maxim Berezovsky	Overview of DNA aptamer selection methods
10.40-11.20	Vera Spiridonova	Functions, conformations, modifications of DNA-aptamers
11.20-12.00	Larry Gold	SOMAmers and SOMAscan: Molecular Snuggling, Binding Specificity, and Proteomics
12.00-12.30	Coffee break	
12.30-15.00	Beckman Coulter Life Sciences Workshop	
15.00-16.00	Lunch	
16.00-18.00	Beckman Coulter Life Sciences Workshop	

31 August / Sat		
9.00-9.30	Anna Kichkailo	Selection of DNA aptamers to microorganisms on the example of salmonella
9.30-10.00	Felix Tomilin	Simulation of molecular structure of DNA aptamers using computer technologies
10.00-10.30	Andrey Werner	Digital PCR methods
10.30-11.00	Alexey Berezhnoy	Problems in conducting digital PCR in the selection of DNA aptamers
11.00-11.30	<b>Coffee break</b>	
11.30-12.00	Anastasia Shabalina	Review of methods for diagnosing microorganisms using DNA aptamers
12.00-12.30	Dmitry Veprintsev	Mathematical analysis of DNA-aptamers
13.00-13.30	Roman Moryachkov	The study of the spatial structure of biomolecules
13.30-14.00	Andrey Barinov	Microscopic methods to study the binding specificity of a target with a DNA-aptamers
14.00-14.30	<b>Closing ceremony</b>	