

\***Note**, that this is the short version of the programm for easier navigation during the Conference. The full version of the programm with all co-authors and affiliations could be found on registration desk, in Organizing Committee room or on-line on the website of the Conference.

## 11th International Multiconference «Bioinformatics of Genome Regulation and Structure\ Systems Biology»,

Novosibirsk, Russia, 20 - 25 August 2018

BGRS\SB-2018 MM&HPC-BBB-2018 SBioMed-2018 CSGB-2018 BioGenEvo-2018 SbPCD-2018 FCRW-2018

### 20 August, Monday

08:30-10:00	Registration ( <i>House of Scientists SB RAS, main entrance</i> ) & Coffee Break
<b>10.10–17.30</b>	<b>Plenary session</b> ( <i>House of Scientists SB RAS, Large hall</i> ) Chairpersons: Prof. Nikolay Kolchanov, Prof. Ralf Hofestädt, Prof. Mikhail Fedoruk
<b>10.10-10.30</b>	Opening Ceremony ( <i>House of Scientists SB RAS, Large Hall</i> )
10.30–11.10	<b>Active maintenance of phylotranscriptomic hourglass patterns in plant and animal embryogenesis</b> <u>Ivo Grosse</u> , Institute of Computer Science, Martin Luther University Halle-Wittenberg, Halle, Germany
11.10–11.50	<b>Selection versus Adaptation: Network Diversification and the Origins of Life, Ageing and Cancer</b> <u>H.V. Westerhoff</u> , Synthetic Systems Biology and Nuclear Organization, University of Amsterdam, Netherlands
11.50–12.30	<b>Unraveling of gene expression control in genome-reduced bacteria. The rally goes on...</b> <u>Vadim Govorun</u> , Federal Research and Clinical Center of Physical-Chemical Medicine of Federal Medical Biological Agency (RCC PCM FMBA), Russia
12.30–12.45	<b>HPC clusters and Big Data storage for data analysis in scientific research – Huawei experience</b> <u>Alexey Iyudin</u> , Huawei Technologies, <b>Gold Sponsor</b>
12.45–14.30	Lunch
14.30–15.10	<b>Towards understanding of apoptosis regulation using computational biology</b> <u>Inna N. Lavrik</u> , Department of Translational Inflammation Research, Institute of Experimental Internal Medicine, Otto von Guericke University, Magdeburg, Germany
15.10–15.50	<b>Biological resources as the sources and limits of human society development (from photosynthesis to electrosynthesis)</b> <u>Nikolay Yankovsky</u> , Vavilov Institute of General Genetics of Russian Academy of Sciences, Moscow, Russia
15.50-16.10	<b>Coffee-break</b>
16.10–16.50	<b>Multiple Origins and Evolution of Neurons and Brains through the lens of single cell genomics</b> <u>Leonid Moroz</u> , University of Florida, Florida, USA
16.50–17.30	NSU <u>Mikhail Fedoruk</u> , NSU, Novosibirsk, Russia
18.00-18.40	Concert
19.00	Dinner Banquet



21 August, Tuesday

	Room 3307	Room 3107	Room 3312	Room 3318	Room 3122
	<b>Genomics, Transcriptomics and Bioinformatics</b> <b>Chairs:</b> <b>Ivo Grosse</b> , Halle-Wittenberg University, Halle, Germany; <b>Vsevolod Makeev</b> , VIGG RAS, MIPT, Moscow, Russia	<b>SBioMED</b> <u>Opening remarks</u> <b>N.A. Kolchanov</b> , ICG SB RAS, Novosibirsk, Russia; <b>A.V. Kochetov</b> , ICG SB RAS, Novosibirsk, Russia; <b>A.Ju. Letyagin</b> , Research Institute of Clinical and Experimental Lymphology – Branch of the ICG SB RAS, Novosibirsk, Russia <b>09.00-09.10</b>	<b>Systems Biology of Aging</b> <b>Chairs:</b> <b>V.Anisimov</b> , <i>President of Gerontological society of the Russian Academy of Sciences, Russia;</i> <b>N.N. Petrov</b> , <i>Research Institute of Oncology, Saint-Petersburg, Russia;</i> <b>N. Kolosova</b> , <i>ICG SB RAS, Novosibirsk, Russia;</i> <b>E.G. Pasyukova</b> , <i>Institute of Molecular Genetics RAS, Moscow, Russia</i>	<b>SbPCD</b> <u>Part 1.</u> <b>Cross talk between autophagy and apoptosis and their targeting</b> <b>Chairs: Inna Lavrik</b> , Magdeburg, Germany; <b>Vladimir Ivanisenko</b> , Novosibirsk, Russia	<b>Systems Computational Biology</b> <b>Chairs:</b> <b>H.V. Westerhoff</b> , University of Amsterdam, Amsterdam, Netherlands; <b>Matteo Barberis</b> , University of Amsterdam, Amsterdam, Netherlands; <b>Maria Samsonova</b> , Peter the Great St.Petersburg Polytechnic University, Russia
	<b>Chairs:</b> <b>Ivo Grosse</b> , Halle-Wittenberg University, Halle, Germany <b>Vsevolod Makeev</b> , <i>Vavilov Institute of General Genetics, RAS, Moscow, Russia;</i> <b>Yurii Aulchenko</b> , NSU, ICG SB RAS, PolyOmica, UoE	<b>Medicine in the “Omics” Era</b> <i>Chairs: L. Lipovich</i> , Center for Molecular Medicine and Genetics, Wayne State University, Detroit, Michigan, USA; <b>Y.L. Orlov</b> , ICG SB RAS, Novosibirsk, Russia; <b>S.E. Peltek</b> , ICG SB RAS, Novosibirsk, Russia	<b>Chairs:</b> <b>M. Kulminski</b> , <i>Duke University, Durham, USA;</i> <b>E.G.Pasyukova</b> , <i>Institute of Molecular Genetics of RAS, Moscow, Russia</i>	<b>Chairs:</b> <b>I. Lavrik</b> , Otto von Guericke University, Magdeburg, Germany; ICG SB RAS, Novosibirsk, Russia; <b>V. Ivanisenko</b> , ICG SB RAS, Novosibirsk, Russia	
<b>9:00–9:30</b>	<b>Fast and exhaustive annotation of motif co-occurrence with regard to their overlapping status in ChIP-seq data</b> <u>Victor Levitsky</u> ICG SB RAS, Novosibirsk, Russia <b>9:00 – 9:30</b>	<b>From Genome to Clinical Medicine: Non-coding Mechanisms for Novel Therapeutics</b> <u>L. Lipovich</u> Center for Molecular Medicine and Genetics, Wayne State University, Detroit, Michigan, USA <b>09.10-09.40</b>	<b>Molecular signatures of Alzheimer’s disease and aging in the TOMM40-APOE-APOC1 locus</b> <u>A. M. Kulminski</u> Biodemography of Aging Research Unit, Social Science Research Institute, Duke University, Durham, USA <b>9:00 - 9:40</b>		<b>Control and Regulation: limits to what the genome may achieve</b> <u>H.V. Westerhoff</u> Synthetic Systems Biology and Nuclear Organization, University of Amsterdam; Molecular Cell Physiology, Vrije Universiteit Amsterdam; Systems Biology, The University of Manchester Infrastructure Systems Biology Europe, Netherlands <b>9:00 - 9:35</b>

<p><b>9:30-10:00</b></p>	<p><b>Evolutionary analysis of 3-dimensional chromatin structure</b>  <u>M. Nuriddinov</u>  ICG SB RAS, Novosibirsk, Russia  <b>9:30 -9:50</b></p>	<p><b>Omics-Based Approach to Profiling of Human Atherosclerotic Plaques</b>  <u>M.S. Nazarenko</u>  Research Institute of Medical Genetics, Tomsk National Research Medical Center, Russian Academy of Science, Tomsk, Russia; Research Institute for Complex Issues of Cardiovascular Diseases, Kemerovo, Russia; Siberian State Medical University, Tomsk, Russia  <b>09.40-09.55</b></p>	<p><b>Plasmid encoding p62/SQSTM is a novel biological agent against diseases of chronic inflammation and age-associated disorders</b>  <u>A. Shneider</u>  CureLab Oncology, Inc, Dedham, MA, USA  <b>9:40 - 10:20</b></p>		<p><b>The “transformer” model of ROS management for PD and cancer: Network diversification as the source of precision in blue-print modelling</b>  <u>A. Kolodkin</u>  Infrastructure for Systems Biology Europe (ISBE); Luxembourg Centre for Systems Biomedicine, University of Luxembourg, Luxembourg; ICG SB RAS, Russia; Molecular Cell Physiology, VU University Amsterdam, The Netherlands; Synthetic Systems Biology, SILS, University of Amsterdam, The Netherlands  <b>9:35 - 10:00</b></p>
	<p><b>Tandem repeats in mammalian genomes</b>  <u>D. Ostromyshenskii</u>  Institute of Cytology RAS, Saint Petersburg, Russia  <b>9:50 – 10:10</b></p>	<p><b>Real-Time Lipidomic Analysis of Biological Tissue Samples</b>  <u>V. Eliferov</u>  Moscow Institute of Physics and Technology, Moscow, Russia  <b>09.55-10.10</b></p>	<p><b>Longevity in Mammals: Lost Genes As a Determinant</b>  <u>A.V. Seliverstov</u>  Institute for Information Transmission Problems of the Russian Academy of Sciences (Kharkevich Institute), Moscow, Russia  <b>10:20 - 10:45</b></p>		
<p><b>10:00-10:30</b></p>	<p><b>Genomics in analysis of <i>Chlamydia psittaci</i> host-adaptation</b>  <u>O. Voronina</u>  N.F.Gamaleya National Research Center for Epidemiology and Microbiology, Moscow, Russia  <b>10:10 – 10:30</b></p>	<p><b>Large Genome-Wide Association Study Provides Insight into the Genetic Architecture of Low Back Pain and Its Risk Factors</b>  <u>Y.A. Tsepilov</u>  NSU, Novosibirsk, Russia; 3Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia  <b>10.10-10.25</b></p>			<p><b><u>CRISPR-Cas regulation: a systems biology approach</u></b>  <u>M. J. Djordjevic</u>  Faculty of Biology, Institute of Physiology and Biochemistry, University of Belgrade, Serbia  <b>10:00 - 10:25</b></p>
<p><b>10:30-10:50</b></p>	<p><b>A novel approach to identify highly connected and differentially expressed gene subnetworks in metastasizing endometrial cancer</b>  <u>K. Kusonmano</u>  Department of Informatics, University of Bergen, Bergen, Norway; Department of Obstetrics and Gynecology, Haukeland University Hospital, Bergen, Norway; King Mongkut’s University of Technology Thonburi, Bangkhuntien, Bangkok, Thailand  <b>10:30 – 10:50</b></p>	<p><b>Investigation of Meningioma Samples by Multi-omics Analysis</b>  <u>K. Bocharov</u>  Moscow Institute of Physics and Technology (State University), Dolgoprudny, Russia; Institute of Energy Problems of Chemical Physics of RAS, Moscow, Russia  <b>10.25-10.40</b></p>			<p><b>Petri-net-Framework: Modeling and simulation of biological networks based on Petri nets</b>  <u>R. Hofestädt</u>  AG Bioinformatics and Medical Informatics University Bielefeld, Technical Faculty, Germany  <b>10:25 - 10:50</b></p>
		<p>Closing remarks  <b>10.40-10.50</b></p>			

**Coffee Break 10.50 – 11.10**

<p><b>11:10-11:40</b></p>	<p><b>Adaptation and selective constraint throughout the <i>Drosophila melanogaster</i> life-cycle</b>  <u>A. Barbadilla</u>                  Genomics, Bioinformatics and Evolution. Departament de Genètica i de Microbiologia, Universitat Autònoma de Barcelona, Spain  <b>11:10 – 11:40</b></p>	<p><b>Genotyping precision medicine</b>                  Chairs: <i>V.A. Stepanov (Tomsk, Russia)</i>  <i>A.N. Tulpakov (Moscow, Russia)</i>  <b>11.10-13.00</b>  <b>Precision Medicine in Endocrinology</b>  <u>A.N. Tulpakov</u>                  Endocrinology Research Center, Moscow, Russia  <b>11.10-11.40</b></p>	<p><b>Influence of Insertion/Deletion and Transcriptional Activity of Alu-Elements on Human Longevity</b>  <u>V. Erdman</u>                  Institute of Biochemistry and Genetics, Ufa Federal Innovation Center, Russian Academy of Sciences  <b>11:10 - 11:35</b></p>	<p><b>Cross-talk between apoptosis and autophagy: the role of suppressed translation</b>  <u>B. Zhivotovsky</u>                  Lomonosov Moscow State University, Russia; Karolinska Institutet, Stockholm, Sweden  <b>11:10-11:55</b></p>	<p><b>Deciphering Cell's Robustness by a Multi-Scale Framework Integrating Cell Cycle and Metabolism in Yeast</b>  <u>M. Barberis</u>                  Swammerdam Institute for Life Sciences, University of Amsterdam, Amsterdam, The Netherlands  <b>11:10 - 11:45</b></p>
<p><b>11:40-12:00</b></p>	<p><b>Predicting pathological promoter-enhancer rewiring in chromosomal rearrangements</b>  <u>V. Fishman</u>                  ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia  <b>11:40 – 12:00</b></p>	<p><b>Verification of MODY Diabetes: Phenotypic and Molecular-Genetic Characteristics</b>  <u>A.K. Ovsyannikova</u>                  Institute of Therapy and Preventive Medicine, Siberian Branch of Russian Academy of Sciences Russia  <b>11.40-11.55</b></p>	<p><b>Reduced Expression of <i>shaggy</i>, the Gene Encoding Protein Kinase GSK3, in Dopaminergic Neurons Increases <i>Drosophila melanogaster</i> Lifespan</b>  <u>E. R. Veselkina</u>                  Institute of Molecular Genetics of RAS, Moscow, Russia  <b>11:35 - 12:00</b></p>		<p><b>Reconstruction of whole-genome metabolic model of Atlantic salmon <i>Salmo salar</i> (SALARECON)</b>  <u>M. Zakhartsev</u>                  Norwegian University of Life Sciences, Ås, Norway  <b>11:45 - 12:10</b></p>
<p><b>12:00-12:20</b></p>	<p><b>Bayesian modelling of gene network alterations during blood cells differentiation and cancerogenesis</b>  <u>A.A. Igolkina</u>                  Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia  <b>12:00 – 12:20</b></p>	<p><b>The Spectrum of Common and Rare CYP1B1 Gene Variants in Russia Patients with Congenital and Juvenile Open Angle Glaucoma</b>  <u>D. Ivanoshchuk</u>                  ICG SB RAS, Novosibirsk, Russia; Research Institute of Internal and Preventive Medicine, Novosibirsk, Russia; NSU, Novosibirsk, Russia  <b>11.55-12.10</b></p>		<p><b>Role of miR-126a in regulation of expression of anti-apoptotic protein BCL2</b>  <u>L. Gulyaeva</u>                  Federal Research Centre "Fundamental and Translational Medicine", Novosibirsk, Russia NSU, Novosibirsk, Russia  <b>11:55-12:20</b></p>	<p><b>Mathematical modeling of formation and supporting of the structure of the root apical meristem <i>Arabidopsis thaliana</i> L.</b>  <u>Lavrekha V.V</u>                  ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia  <b>12:10 - 12:35</b></p>
<p><b>12:20 – 12:50</b></p>	<p><b>Dynamically regulated miRNA-mRNA network in lymph node metastasis of prostate cancer patients</b>  <u>M. Shkurnikov</u>                  National Medical Research Radiology Center, Obninsk, Russia  <b>12:20 – 12:50</b></p>	<p><b>Potential Genetic Markers of Alzheimer's Disease, Which Play a Significant Role in Aging</b>  <u>A. Bocharova</u>                  Research Institute of Medical Genetics, Tomsk National Medical Research Center, Tomsk, Russia  <b>12.10-12.25</b></p>	<p><b>Is Retardation of Development of Retina and Brain a Predictor of Age-related Macular Degeneration and Alzheimer's disease?</b>  <u>N.A. Stefanova</u>                  ICG SB RAS, Novosibirsk, Russia  <b>12:00 - 12:25</b></p>	<p><b>Novel therapeutic approaches based on Lactaptin action</b>  <u>O. Koval</u>                  Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia  <b>12:20-12:45</b></p>	<p><b>FAIRDOMHub: a repository and collaboration environment for sharing systems biology research</b>  <u>O. Krebs</u>                  Heidelberg Institute for Theoretical Studies, Heidelberg, Germany  <b>12:35 - 13:00</b></p>

		<b>New Regulatory SNPs Associated with Colorectal Cancer</b> <u>E. Leberfarb</u> ICG SB RAS, Novosibirsk, Russia; Novosibirsk State Medical University, Novosibirsk, Russia <b>12.25-12.40</b>			
12:50 – 13:05	<b>10x Genomics/How to analyze transcriptome of each of 800 000 cells, using automatized library prep for Illumina from 10x Genomics</b> <u>K. Bolaeva</u> SkyGen, Moscow, Russia, Silver Sponsor <b>12:50 – 13:10</b>	<b>Polymorphic Variants in Stress Resistance Genes and Human Emotional Stability</b> <u>K. Bakunovich</u> Institute of Genetics and Cytology, NAS of Belarus, Minsk, Republik of Belarus <b>12.40-12.55</b>		<b>Autophagy modulation by antitumor protein lactaptin</b> <u>A. Tkachenko</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia <b>12:45-13:05</b>	
		<b>Human disease panels and sample preparation for NGS in clinical research from Roche</b> <u>I. Karpova</u> Roche Diagnostics Rus LLC, Moscow, Russia, Silver Sponsor <b>12.55-13.10</b>		<b>Comparative analysis of lactaptin produced in bacterial and eukaryotic cells. Purification and activity</b> <u>O. Chinak</u> Institute of Chemical Biology and Fundamental Medicine, SB, RAS, Novosibirsk, Russia <b>13:05-13:30</b>	
		<b>Closing remarks</b> <b>13.10-13.15</b>			

**Lunch & Poster Session 13:00-14:00 \ \ 14:00 – 15:00**

**Intel workshop 13:30-14:30**

	Genomics, Transcriptomics and Bioinformatics	SbioMed-2018	Systems Biology of Aging	SbPCD-2018	Systems Computational Biology
	Room 3307	Room 3107	Room 3312	Room 3318	Room 3122
	<b>Chairs:</b> <i>Ivo Grosse, Halle-Wittenberg University, Halle, Germany</i> <i>Vsevolod Makeev, VIGG RAS, MIPT, Moscow, Russia</i> <i>Yurii Aulchenko, NSU, ICG SB RAS, PolyOmica, UoE</i>	Molecular biology in human health and disease <b>Chairs:</b> <i>T.I. Merculova (Novosibirsk, Russia)</i> <i>A.G. Pokrovsky (Novosibirsk, Russia)</i> <i>M.Yu. Skoblov (Saint-Petersburg, Russia)</i> <b>15.00-16.50</b>	<b>Chairs:</b> <i>Chairs</i> <i>M. Kulminski, Duke University, Durham, USA; E.G.Pasyukova, Institute of Molecular Genetics of RAS, Moscow, Russia</i>	Part 2. Systems biology of pharmacological targeting of apoptosis Chairs: <i>Chairs: Inna Lavrik, Magdeburg, Germany; Vladimir Ivanisenko, Novosibirsk, Russia</i>	
14:30-15:00	<b>15.00 – 19.00</b>	<b>Promoter-Pathway Analysis Approach to Interpretation of Microarray Data of the antitumor peptide CIGB-552</b>		<b>Towards understanding of apoptosis regulation using computational biology</b>	<b>3D multiscale hybrid modeling and simulation of vascular tumour growth</b>

		<p><u>F. Massó JR</u> Pharmaceutical Department, Center for Genetic Engineering and Biotechnology, Cuba</p> <p><b>15.00-15.15</b></p>		<p><u>I.N. Lavrik</u> Department of Translational Inflammation Research, Institute of Experimental Internal Medicine, Otto von Guericke University, Magdeburg, Germany; ICG SB RAS, Novosibirsk, Russia</p> <p><b>14:30-15:00</b></p>	<p><b>including spatio-temporal distribution of central metabolism</b> <u>M. Reuss</u>, Stuttgart Research Center Systems Biology, University Stuttgart Germany, Germany</p> <p><b>15:00 - 15:35</b></p>
		<p><b>Development and Optimization DNA Platform for Suppressing Cancer Cells</b> <u>D. Nedorezova</u> Saint Petersburg National Research University of Information Technologies, Mechanics and Optics, Saint Petersburg, Russia</p> <p><b>15.15-15.30</b></p>			
<b>15:00-15:30</b>	<p><b>Design of genus-specific primer panel for detection and identification of viral DNA in environmental samples using next-generation sequencing</b> <u>K. Khafizov</u> Central Research Institute of Epidemiology, Moscow, Russia; Moscow Institute of Physics and Technology, Dolgoprudny, Russia</p> <p><b>15:00 – 15:30</b></p>	<p><b>Defining the Genetic Control of Human Blood Plasma Glycome Using Genome-Wide Association Study</b> <u>S. Sharapov</u> ICG SB RAS, Novosibirsk, Russia ; NSU, Novosibirsk, Russia</p> <p><b>15.30-15.45</b></p>	<p><b>Systems biology of Aging: Genomic basis of human lifespan - diseases not aging?</b> <u>P. K. Joshi</u> Centre for Global Health Research, Usher Institute of Population Health Sciences and Informatics, University of Edinburgh, Teviot Place, Edinburgh, United Kingdom; Institute of Social and Preventive Medicine, University Hospital of Lausanne, Lausanne, Switzerland</p> <p><b>15:00 - 15:40</b></p>	<p><b>Rational Design of Small-Molecule Compounds Targeting CD95 Programmed Cell Death Pathway</b> <u>N. Ivanisenko</u> ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia</p> <p><b>15:00-15:30</b></p>	<p><b>Comparison of High- and Low-resolution MS Data for Direct Tissue Profiling on a Way from Laboratory to Clinic</b> <u>A. Sorokin</u> Moscow Institute of Physics and Technology (State University), Dolgoprudny, Russia</p> <p><b>15:35 - 16:00</b></p>
<b>15:30-16:00</b>	<p><b>Evaluation of MinION nanopore platform for HIV whole coding regions sequencing</b> <u>A.S. Speranskaya</u> Central Research Institute of Epidemiology, Moscow, Russia</p> <p><b>15:30 – 15:55</b></p>	<p><b>Evolutionary Analysis and Mathematical Modeling of Gene Networks of Energy Metabolism Disorders</b> <u>S.A. Lashin</u> ICG SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</p> <p><b>15.45-16.00</b></p>	<p><b>Molecular and Cellular Mechanisms of Age-Related Macular Degeneration: Evidences from OXYS Rats</b> <u>O.S. Kozhevnikova</u> ICG SB RAS, Novosibirsk, Russia</p> <p><b>15:40 - 16:05</b></p>	<p><b>Growth of interest to research in the field of medical genetics according to the analysis of scientific publications</b> <u>V.A. Ivanisenko</u> ICG SB RAS, Novosibirsk, Russia</p> <p><b>15:30-16:00</b></p>	<p><b>Adaptive Strategies of Motile Bacteria in Dynamic Aquatic Ecosystems. A Simulation Study</b> <u>A. I. Klimenko</u> ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia</p> <p><b>16:00 - 16:20</b></p>
		<p><b>Reperfusion Activates AP-1 and Heat Shock Response in Donor Kidney</b> <u>A. Reznik</u> Center for Bioinformatics, First Pavlov State Medical University, Saint-Petersburg,</p>			

		Russian Federation; <sup>2</sup> Department of Genetics, Atlas Biomed Group, Moscow, Russia <b>16.00-16.15</b>			
	<b>The advanced technologies of Illumina for NGS</b> <u>A. Kilin</u> Albiogen, Moscow, Russia, Silver Sponsor <b>15:55 – 16:10</b>	<b>DNA Methylation Level in Regulatory Regions of mtDNA and Three Mitochondria-Related Nuclear Genes in Atherosclerosis</b> <u>M.V. Golubenko</u> Research Institute of Medical Genetics, Federal State Budgetary Scientific Institution “Tomsk National Research Medical Center of the Russian Academy of Sciences”, Tomsk, Russia <b>16.15-16.30</b>	<b>The Influence of Environmental and Social Factors on the Parameters Dynamics of the Gompertz Function</b> <u>A.V. Kremntsova</u> Emanuel Institute of Biochemical Physics, RAS, Moscow, Russia <b>16:50 - 16:30</b>	<b>Analysis of programmed cell death in associative gene net-work of glaucoma reconstructed using AND system</b> <u>O.V. Saik</u> ICG SB RAS, Novosibirsk, Russia <b>16:00-16:20</b>	<b>Evolutionary Computations and Modular Organization of the Gene Regulatory Regions</b> <u>A. Spirov</u> I. M. Sechenov Institute of Evolutionary Physiology and Biochemistry RAS, St. Petersburg, Russia <b>16:20 - 16:40</b>
<b>16:00-16:30</b>	<b>Flax (<i>Linum usitatissimum</i> L.) Response to Non-Optimal Acidity and Zinc deficiency</b> <u>A. Dmitriev</u> Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia <b>16:10 – 16:50</b>	<b>Enhancement of cytotoxic effects of temozolomide in glioblastoma cell lines by Tdp1 inhibitors</b> <u>O. Oleshko</u> NSU, Novosibirsk, Russia <b>16.30-16.45</b>		<b>Topological properties of graph of hydrogen bonds forming in SOD1 protein indicate critical regions in its structure</b> <u>A. Alemasov,</u> ICG SB RAS, Novosibirsk, Russia <b>16:20-16:40</b>	<b>On evolutionary analysis of gene networks by the Orthoscape software</b> <u>Z.S. Mustafin</u> ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>16:40 - 17:00</b>
<b>16:30-16:50</b>		<b>Closing remarks</b> <b>16.45-16.50</b>			
<b>Coffee Break</b>					
<b>17:10-17:40</b>	<b>Omics approaches to help decipher molecular control of root biotic interactions in the model legume <i>Medicago truncatula</i></b> <u>C. Ben</u> EcoLab, Université de Toulouse, CNRS, Toulouse INP, UPS, Toulouse, France <b>17:10 – 17:40</b>	<b><i>Translational Medicine: from Animal Models to Clinical Studies</i></b> <i>Chairs: M.P. Moshkin (Novosibirsk, Russia)</i> <i>N.P. Bgatova (Novosibirsk, Russia)</i> <b>17.10-18.30</b>	<b>17: Systems Biology Approach Reveals the Mystery of Aging Origin</b> <u>A. Khalyavkin</u> Emanuel Institute of Biochemical Physics RAS, Moscow, Russia; Institute for Systems Analysis FRC CSC RAS, Moscow, Russia <b>10 - 17:35</b>		<b>Natural selection equally supports the human bias in subordination and domination: a genome-wide study with in silico confirmation and in vivo validation in mice</b> <u>M. Ponomarenko</u> ICG SB RAS, Novosibirsk, Russia <b>17:10 - 17:40</b>
		<b>Development and Validation of Experimental Cholangiocarcinoma Models for Ex Vivo and In Vivo Analysis</b> <u>G.A. Maksimova</u> ICG SB RAS, Novosibirsk, Russia <b>17.10-17.25</b>			
	<b>Workflows for classification of NGS metagenomic data</b> <u>D. Sukhomlinov</u> NSU, Novosibirsk, Russia; Unipro Center of Information Technologies, Novosibirsk, Russia <b>17:40 – 18:00</b>	<b>Nanoparticles of Manganese Oxide Induce Stress Granule Formation in Human Glioblastoma Cells</b> <u>N.B. Illarionova</u> ICG SB RAS, Novosibirsk, Russia <b>17.25-17.40</b>	<b>Expression of Neurogenesis-Associated Genes during Development of Alzheimer’s Disease-Like Pathology in OXYS Rats</b> <u>E.A. Rudnitskaya</u>		<b>Towards genome-based and environment-informed breeding intensification</b> <u>M.G. Samsonova</u> Peter the Great St.Petersburg Polytechnic University, St.Petersburg, Russia

			ICG SB RAS, Novosibirsk, Russia <b>17:35 - 18:00</b>		<b>17:40 - 18:20</b>
<b>17:40-18:00</b>	<b>Analysis of biosynthetic gene clusters of <i>Rhodococcus sp. S10</i></b> <u>A.V.Sorokina</u> Institute of Fundamental medicine and biology KFU, Kazan, Russia <b>18:00 – 18:20</b>	<b>Empagliflozin and Linagliptin Ameliorate Podocyte Injury and Enhance Autophagy in a Model of Type 2 Diabetic Nephropathy</b> <u>A.I. Korbut</u> Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia <b>17.40-17.55</b>			
<b>18:00 – 19:00</b>	<b>Genomes of Three Conifer Species: <i>Larix sibirica</i>, <i>Pinus sibirica</i> and <i>Pinus sylvestris</i></b> <u>Yu. Putintseva</u> Siberian Federal University, Krasnoyarsk, Russia <b>18:20 – 18:40</b>	<b>Lithium and Autophagy in Hepatocellular Carcinoma</b> <u>Iu. Taskaeva</u> Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>17.55-18.10</b>			<b>Development of nonlinear regression models of flowering time control by climatic factors in soybean and chickpea</b> <u>K.K. Kozlov</u> Peter the Great St..Petersburg Polytechnic University, Russia <b>18:20 - 18:45</b>
		<b>FastPrep: Full Solution for Sample Homogenization and Extration of DNA, RNA and Proteins</b> <u>S.E. Sedykh</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; MPBA Diagnostika, Moscow, Russia, Silver Sponsor <b>18.10-18.25</b>			<b>Prediction Of Gene Expression Level By Using ChIP-Seq-Derived Data From The GTRD Database And Transcription Start Sites Identified By The Fantom5 Project</b> <u>I. Yevshin</u> BIOSOFT.RU, Ltd, Novosibirsk, Russia <b>18:45 - 19:05</b>
		Closing remarks <b>18.25-18.30</b>			



					<p><b>Prediction Of Gene Expression Level By Using ChIP-Seq-Derived Data From The GTRD Database And Transcription Start Sites Identified By The Fantom5 Project</b></p> <p><u>I. Yevshin<sup>1</sup>, Yu. Kondrakhin<sup>1,2</sup>, R. Sharipov<sup>1,3</sup>, F. Kolpakov<sup>1,2</sup></u></p> <p><sup>1</sup> BIOSOFT.RU, Ltd, Novosibirsk, Russia; <sup>2</sup> Institute of Computational Technologies SB RAS, Novosibirsk, Russia; <sup>3</sup> Novosibirsk State University, Novosibirsk, Russia</p> <p><b>18:45 -19:05</b></p>
					<p><b>Patterns and models of flowering of some Campanulaceae Juss. species</b></p> <p><u>E. Fomin</u></p> <p>Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; Central Siberian Botanical Garden SB RAS, Novosibirsk, Russia</p> <p><b>19:05-19:25</b></p>

## 22 August

BioGenEvo-2018	SbioMed-2018	Bioinformatics and systems biology of plants	FCRW-2018	SbPCD-2018	MM-HPC-BBB-2018
Room 3307	Room 3107	Room 3312	Room 3113	Room 3318	Room 3122
<p>Chair</p> <p><i>L.L.Moroz</i> – Distinguished Professor of Neuroscience, Genetics, Biology, Chemistry University of Florida (USA), scientific adviser of Laboratory of Biodiversity and Functional Marine Genomics (IMBR RAS)</p>	<p>Cell technology and regenerative medicine</p> <p><b>Chairs: V.I. Konenkov, O.V. Poveschenko, Institute of Clinical and Experimental Lymphology - branch of ITSiG SB RAS, Novosibirsk, Russia; S.V. Sennikov, Federal State</b></p>	<p>Chairs</p> <p><i>E.A.Salina</i>, Institute of Cytology and Genetics of SB RAS, Novosibirsk, Russia</p> <p><i>A.V. Kochetov</i>, Institute of Cytology and Genetics of SB RAS, Novosibirsk, Russia</p>	<p><b>Section: Computer genomics and post-genomic technologies</b></p> <p>Chairs: <i>Prof Y.L.Orlov</i> (ICG SB RAS, Novosibirsk, Russia; <i>Prof. Hong-Yu Zhang</i>, Huazhong Agricultural University, Wuhan (China)</p>	<p>Part 3.</p> <p><b>DNA Repair</b></p> <p>Chairs: <i>O.I. Lavrik</i>, Novosibirsk State University, Novosibirsk, Russia, Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; <i>D.O. Zharkov</i>, Novosibirsk State University, Novosibirsk,</p>	<p><b>Morning session “Image analysis and mathematical modeling in tomography”</b></p> <p><i>Chairpersons: Dr. N.V. Denisova</i></p> <p>Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia</p>

		<b>Budgetary Scientific Institution Research Institute of Fundamental and Clinical Immunology, Novosibirsk, Russia</b>			Russia; Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia	
<b>09.00-09.30</b>	<b>Multiple Origins and Genomic Diversity of Cell Types in Animals: Sequencing of 2 million single cells across phyla to decipher the genealogy of neurons and brains</b> <u>L. L. Moroz</u> University of Florida, Florida, USA; Kovalevsky Institute of Marine Biological Research of RAS, Russia <b>9:00 - 9:35</b>	<b>Epigenetic Codes and Their Implications in Stem Cell Biology: an Insight Derived From Deep Sequencing Analysis</b> <u>X. Zhao</u> Hangzhou Lifereal Biotechnology Co., Ltd., China <b>09.00-09.30</b>	<b>Genome wide analysis of quantitative disease resistance against Verticillium wilt in the model legume <i>Medicago truncatula</i></b> <u>C. Ben</u> EcoLab, Université de Toulouse, CNRS, Toulouse INP, UPS, Toulouse, France <b>09:00-09:35</b>	<b>Non-coding RNA world and bioinformatics study</b> <u>M. Chen</u> Zhejiang University, Hangzhou, China <b>9:00-9:35</b>		<b>Methods of mathematical modeling in modern diagnostic nuclear medicine</b> <u>N.V. Denisova</u> Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia <b>09:00-09:30</b>
<b>09.30-10.00</b>	<b>Evolution of unicellular eukaryotes and possible ways to multi-cellularity</b> <u>I. Dovgal</u> <i>Kovalevsky Institute of Marine Biological Research RAS, Sevastopol, Russia</i> <b>9:35 - 10:00</b>	<b>Cellular Technologies Based on Dendritic Cells</b> <u>S.V. Sennikov</u> Institute of Fundamental and Clinical Immunology, Novosibirsk, Russia <b>09.30-09.45</b>	<b>Genome-wide association study between chickpea accessions from vir collection and phenotypic data</b> <u>A.B. Sokolkova</u> Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia <b>09:35-10:00</b>	<b>Knowledge mining from large scale protein-protein interaction datasets at the era of big data</b> <u>D. Li</u> Beijing Institute of Life Omics, Beijing, China <b>9:35–10:10</b>		<b>Application of Monte Carlo simulations in nuclear medicine imaging</b> <u>J. Cal-Gonzales</u> QIMP team, Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Austria <b>09:30-10:00</b>
<b>10.00-10.30</b>	<b>The review of <i>Trichoplax adhaerens</i> genome: comparative analyses</b> <u>E. Vodiasova</u> A.O. Kovalevsky Institute of Marine Biological Research of RAS, Sevastopol, Russia <b>10:00 - 10:25</b>	<b>The Use of Mesenchymal Stem Cells and Erythropoietin in Lower Limb Ischemia</b> <u>N. Bondarenko</u> Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia <b>09.45-10.00</b>	<b>Possible Mechanisms of Therapeutic Effects of Mesenchymal Stromal Cells Conditioned Medium on the Model of Cryptorchidism in Rats</b> <u>N.A. Basalova</u>	<b>Global gene expression in organ-specific cold stress response in <i>Arabidopsis thaliana</i></b> <u>A. Klepikova</u> Institute for Information Transmission Problems RAS, Moscow, Russia	<b>Widely-expressed and conserved long noncoding RNAs LINC00493 and LINC01420 influence on cell physiology</b> <u>A. Yu. Filatova</u> Research Centre of Medical Genetics, Moscow, Russia <b>10:10–10:30</b>	<b>An Algorithm for Tracking <i>C. elegans</i> Body Movement and Muscular Activity in Ca<sup>2+</sup> Dynamics Video for Tuning and Validation of its Locomotion Simulation</b> <u>A.Yu. Palyanov</u> <i>A.P. Ershov Institute of Informatics Systems SB RAS.</i>

		Institute for Regenerative Medicine, Medical Research and Educational Centre, MSU, Moscow, Russia <b>10.00-10.15</b>	Lomonosov Moscow State University, Moscow, Russia <b>10:00-10:25</b>			<i>Novosibirsk, Russia; NSU, Novosibirsk, Russia</i> <b>10:00-10:30</b>
<b>10.30-10.50</b>	<b>The diversity of cell types in Trichoplax adhaerence: Hidden complexity of a simpler organism?</b> <u>D. Romanova</u> A.O. Kovalevsky Institute of Marine Biological Research of RAS, Sevastopol, Russia <b>10:25 - 10:50</b>	<b>Epigenetic Changes of MMSCs Under the Influence of Calcium Phosphate Coating with Different Roughness</b> <u>L. Litvinova</u> Basic Laboratory of Immunology and Cell Biotechnology, Immanuel Kant Baltic Federal University, Kaliningrad, Russia <b>10.15-10.30</b>		<b>De novo sequencing, assembly and annotation of <i>Armillaria borealis</i> genome</b> <u>V. Akulova</u> Siberian Federal University, Krasnoyarsk, Russia; V. N. Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia <b>10:30–10:50</b>		<b>Simulation and image reconstruction of the combined Siemens PET/CT and PET/MRI systems</b> <u>H. Kertesz</u> QIMP group, Center for Medical Physics and Biomedical Engineering; Digital Image Processing Laboratory, Center for Medical Physics and Biomedical Engineering Medical University of Vienna, Vienna, Austria <b>10:30-10:50</b>
		<b>Erythropoietin Augment Therapeutic Potential of Mesenchymal Stem Cells in Rat with Degenerate Intervertebral Disk</b> <u>A.P. Lykov</u> Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia <b>10.30-10.45</b>	<b>Regulation of metabolic pathway underlying anthocyanin pigmentation of barley pericarp</b> <u>O. Shoeva</u> ICG SB RAS, Novosibirsk, Russia <b>10:25-10:50</b>			
		<b>Closing remarks 10.45-10.50</b>				
<b>Coffee-break 10.50-11.10</b>						
		New biomarkers and molecular targets <i>Chairs: V.V. Klimontov, Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia; M.A. Korolev, Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia</i> <b>11.10-13.00</b>				
<b>11.10-11.30</b>	<b>Complex life cycle: a set of phenotypes on the single genome</b> <u>S. Shchenkov</u> Saint-Petersburg State University, St. Petersburg, Russia; Kovalevsky Institute of Marine Biological Research of RAS, Russia	<b>Association of Intracellular Proteolytic Systems and Locomotor Proteins in Tissues of Primary Tumor and Lymphogenous Metastases of Breast Cancer</b> <u>E. Shashova</u>	<b>Detection of genes involved in regulation of wheat flowering time</b> <u>A.A. Kiseleva</u> ICG SB RAS, Novosibirsk, Russia <b>11:10-11:35</b>	<b>ChIA-PET methods for 3D genome studies</b> <u>G. Li</u> Huazhong Agricultural University, Wuhan, China <b>11:10–11:35</b>	<b>Non canonical roles of BER enzymes in RNA processing: novel perspectives in cancer biology through the study of</b>	<b>Mathematical phantoms development for computer simulation of the patient examination procedure by a positron emission tomography method</b> <u>M. Ondar</u> Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia

	<b>11:10 - 11:45</b>	Tomsk National Research Medical Center of the Russian Academy of Sciences, Tomsk, Russia <b>11.10-11.25</b>		<b>Developing the protein-concentrating nanofluidic chips for early diagnostics of neurodegenerative disorders</b> <u>T.G. Amstislavskaya</u> Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia; ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>11:35-11:55</b>	<b>APE1 RNA- and protein-interactomes</b> <u>G. Tell</u> Dept. of Medicine, University of Udine, Udine, Italy <b>11:10-11:40</b>	Novosibirsk State Technical University, Novosibirsk, Russia <b>11:10-11:25</b>
		<b>Serum Levels of WISP1/CCN4 in Subjects with Type 2 Diabetes: the Relationships with Body Fat Distribution and Adipose Tissue Dysfunction</b> <u>V.V. Klimontov</u> Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia <b>11.25-11.40</b>				
<b>11.30-12.00</b>	<b>Single-cell bioinformatics: practical implementations</b> <u>O. Kuleshova</u> A.O. Kovalevsky Institute of Marine Biological Research of RAS, Sevastopol, Russia <b>11:45 - 12:10</b>	<b>Serum Markers in Head and Neck Squamous Cell Carcinoma</b> <u>G. V. Kakurina</u> Cancer Research Institute, Tomsk National Research Medical Center, Russian Academy of Sciences, Tomsk, Russia <b>11.40-11.55</b>	<b>Genetic Mechanisms of Resistance to Golden Potato Cyst Nematode <i>Globodera rostochiensis</i> in <i>Solanum phureja</i></b> <u>A.A.Egorova</u> ICG SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia <b>11:35-12:00</b>	<b>Analyzing the genes related to Alzheimer's disease via a network and pathway-based approach</b> <u>T.G. Amstislavskaya</u> Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia; ICG SB RAS, Novosibirsk, Russia; <sup>3</sup> NSU, Novosibirsk, Russia; <b>11:55-12:15</b>	<b>Poly(ADP-ribose) polymerase 1 in regulation of DNA repair and longevity</b> <u>O.I. Lavrik</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>11:40-12:10</b>	<b>The Performance Improvement of the Permutation Test Algorithm for GSEA</b> <u>M. Grishchenko</u> Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia; <b>11:25-11:40</b>
		<b>Phenotypes of Peripheral Dendritic Cells in Patients with Early Rheumatoid Arthritis</b> <u>M. Korolev</u> Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia <b>11.55-12.10</b>				<b>Inverse problems in tomography: an evolutionary approach</b> <u>V. Dedok</u> Sobolev Institute of Mathematics SB RAS, Novosibirsk, Russia <b>11:40-11:55</b>
<b>12.00-12:30</b>	<b>Transition transversion ratio in mtDNA is higher in long-versus short-lived mammals: effects of ROS and replication?</b> <u>K. Ushakova</u> The School of Life Sciences, Immanuel Kant Baltic Federal University, Kaliningrad, Russia <b>12:10 - 12:35</b>	<b>Natural Bispecific Antibodies – Biochemical Markers of Autoimmune Pathology</b> <u>S.E. Sedykh</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, NSU, Novosibirsk, Russia <b>12.10-12.25</b>	<b>Altering Barley Agronomic Traits via Targeted Mutagenesis</b> <u>A.M. Korotkova</u> ICG SB RAS, Novosibirsk, Russia <b>12:00-12:25</b>	<b>Analyzing the genes related to Alzheimer's disease via a network and pathway-based approach</b> <u>Y. Hu</u> Department of Bioinformatics, College of Life Sciences, Zhejiang	<b>Mechanisms of poly(ADP-ribosylation) and its role in genotoxic stress response</b> <u>A. Mangerich</u> Molecular Toxicology Group, University of Konstanz, Germany <b>12:10-12:40</b>	<b>An effective subgradient method for simultaneous restoration and segmentation of blurred images</b> <u>T. Serezhnikova</u> Krasovsky Institute of Mathematics and Mechanics UB RAS; Ural Federal University, Ekaterinburg, Russia

				University, Hangzhou, China <b>12:15–12:35</b>		<b>11:55-12:10</b>
		<b>Circulating DNA-Markers for Diagnostics and Monitoring of Lung Cancer: Analysis of LINE-1 Retrotransposons Methylation in the Blood</b> <u>A. Ponomaryova</u> Tomsk National Research Medical Center RAS, Tomsk, Russia; Tomsk Polytechnical University, Tomsk, Russia <b>12.25-12.40</b>		<b>"Mining" for the Alpha-1-Antitrypsin Deficiency in the Population of Serbia - Experience in the Implementation of an Integrative Diagnostic Algorithm</b> <u>A. Beletic</u> Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia; <b>12:35–12:55</b>	<b>Poly- and mono(ADP-ribosylation) of DNA strand breaks by PARP2 and PARP3 enzymes</b> <u>A.A. Ishchenko</u> Groupe «Réparation de l'ADN», Equipe Labellisée par la Ligue Nationale Contre le Cancer, Université Paris-Saclay, Villejuif, France <b>12:40-13:10</b>	<b>Investigation of stopping criterion for OSEM algorithm with application to nuclear medicine</b> <u>L. Jiyu</u> Novosibirsk State University, Novosibirsk, Russia <b>12:10-12:25</b>
<b>12.30-13:00</b>	<b>The genome and transcriptome of a freshwater bryozoan <i>Cristatella mucedo</i></b> <u>V. Starunov</u> Saint-Petersburg State University, St. Petersburg, Russia; <b>12:35 - 13:00</b>	<b>DNA Methylation and Expression of MicroRNA Genes in Unstable Carotid Atherosclerotic Plaques</b> <u>A. Markov</u> Tomsk National Research Medical Center of the Russian Academy of Sciences, Research Institute of Medical Genetics, Tomsk, Russia ; <b>12.40-12.55</b>	<b>Algorithms for prediction and analysis of regulatory regions in plants</b> <u>T. Tatarinova</u> University of La Verne, La Verne, CA, USA <b>12:25-12:50</b>	<b>Fast search of long approximate repeats in DNA sequences with bounded indel density</b> <u>S. P. Tsarev</u> Siberian Federal University, Krasnoyarsk, Russia; Institute of computational modelling SB RAS, Krasnoyarsk, Russia <b>12:55–13:15</b>	<b>DNA Is a new acceptor of PARP3 protein</b> <u>E. Belousova</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; <b>13:10-13:30</b>	<b>Single-molecular fluorescence spectroscopy in protein folding: a theoretical modeling of multi-color experiments</b> <u>S.F. Chekmarev</u> NSU, Novosibirsk, Russia; Institute of Thermophysics, SB RAS, Novosibirsk, Russia; <b>12:25-12:40</b>
		<b>New brands, new opportunities for Scientific Research</b> <u>I. Volkov</u> Khimexpert, Moscow, Russia, Silver Sponsor <b>12.55-13.10</b>				<b>Intel Software Solutions for Bioinformatics and Life science</b> <u>Andrianova Olga</u> Intel Software, Gold Sponsor <b>12.40-12.55</b>
		<b>Closing remarks 13.10-13.15</b>				
<b>Lunch &amp; Poster Session 13:00-14:00 \ \ 14:00 – 15:00</b>						
<b>Intel workshop 13:30-14:30</b>						

	Room 3307	Room 3107	Room 3312	Room 3113	Room 3318	Room 3122
15:00 -	<b>BioGenEvo-2018</b>	<b>Computer and experimental pharmacology</b> Chairs: <i>A.A. Lagunin</i> , Institute of Biomedical Chemistry, Moscow, Russia; <i>Pirogov</i> Russian National Research Medical University, Moscow, Russia; <i>P.G. Madonov</i> , Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia	<b>Bioinformatics and systems biology of plants</b>	<b>Section: Integrative bioinformatics and data analysis in systems biology</b> Chairs: <i>Prof. Ming Chen</i> , Zhejiang University, China; <i>Prof Guoliang Li</i> , Huazhong Agricultural University, Wuhan, China	<b>SbPCD-2018</b>	<b>Afternoon session “Inverse problems in biology, medicine and social processes”</b> Chairperson: <i>A.I. Ilyin</i> , Scientific Center of Anti-Infective Drugs, Kazakhstan; <i>Dr. O.I. Krivorotko</i> , Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia
15:30 -	<b>Diversity of genomic variants and population genetics of ethnic and regional groups across Russia</b> <u>V. Brukhin</u> Theodosius Dobzhansky Center for Genome Bioinformatics, St. Petersburg State University, St. Petersburg, Russia <b>15:00 - 15:35</b>	<b>Plenary Lecture</b> <b>Computer Assessment of Interaction Between Chemical Compounds and Human Kinome</b> <u>P. Pogodin</u> Institute of Biomedical Chemistry, Moscow, Russia <b>15.00-15.30</b>	<b>Roles of non-coding RNAs in stress response in plants</b> <u>M. Chen</u> Zhejiang University, Hangzhou, China <b>15:00-15:35</b>	<b>Evolutionary and genetic features of drug targets</b> <u>H.-Y. Zhang</u> Hubei Key Laboratory of Agricultural Bioinformatics, College of Informatics, Huazhong Agricultural University, Wuhan, P. R. China <b>14:00-14:35</b>	<b>Targeted DNA damage and repair: the cell’s multitool for genome regulation</b> <u>D.O. Zharkov</u> NSU, Novosibirsk, Russia; Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia <b>14:30-15:00</b>	<b>High-performance computing and big data in epidemiology</b> <u>Sh. Zhang</u> Tianjin University of Finance and Economics, Tianjin, China <b>15:00-15:30</b>
15:30 -		<b>Virtual Screening of MEK1 Inhibitors Among Natural Compounds Based on ChEMBL Data and (Q)SAR Models</b> <u>A.A. Lagunin</u> Pirogov Russian National Research Medical University (RNRMU), Moscow, Russia; <sup>2</sup> Institute of Biomedical Chemistry (IBMC), Moscow, Russia <b>15.30-15.45</b>	<b>Dissecting the Mechanisms of EIN3-Dependent Regulation of Ethylene Response in Arabidopsis thaliana</b> <u>E.V. Zemlyanskaya</u> ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>15:35-16:00</b>	<b>Petri-nets for modelling and simulation of biological networks</b> <u>R. Hofestädt</u> AG Bioinformatics and Medical Informatics University Bielefeld, Technical Faculty, Germany <b>14:35-15:00</b>	<b>Molecular model of DNA glycosylase stimulation by human apurinic/apyrimidinic endonuclease 1</b> <u>N.A. Kuznetsov</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>15:00-15:20</b>	<b>Supercomputer analysis of social, epidemiological and economic processes</b> <u>O. Krivorotko</u> Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia NSU, Novosibirsk, Russia <b>15:30-15:50</b>
16:00	<b>Evolutionary History of Native Americans drawn by Deep Learning Approach</b> <u>O. Dolgova</u> <i>Population Genomics Team, Centre Nacional d’Anàlisi Genòmica, Barcelona, Spain</i> <b>15:35 - 16:00</b>			<b>Epigenetic codes and their implications in stem cell biology: an insight derived from deep sequencing analysis</b> <u>X. Zhao</u> Shanghai Center for Systems Biomedicine,		

				Shanghai Jiao Tong University, China <b>15:00-15:20</b>		
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		<b>MetaTox - Web Application for Generation Metabolic Pathways and Toxicity Estimation</b> <u>A. Rudik</u> Institute of Biomedical Chemistry (IBMC), Moscow, Russia; <sup>2</sup> Medico-biological Faculty, Pirogov Russian National Research Medical University, Moscow, Russia <b>15.45-16.00</b>		<b>A Kolmogorov-Smirnov based approach for predicting targets of transcription</b> <u>M. J. Djordjevic</u> Faculty of Biology, Institute of Physiology and Biochemistry, University of Belgrade, Serbia <b>15:20-15:40</b>	<b>Biological activity of the new photoactive ruthenium nitrosyl complexes: cytotoxicity and effects on DNA repair</b> <u>I.R. Grin</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; 2 NSU, Novosibirsk, Russia <b>15:20-15:40</b>	<b>Chaos theory as a bioinformatics promissory instrument for a human organism systemic response in-depth study</b> <u>B.G. Vainer</u> Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; <sup>2</sup> NSU, Novosibirsk, Russia <b>15:50-16:10</b>
<b>Genetic footprints of Medieval nomads on the crossroads of civilizations in Southern Russian</b> <u>T. Tatarinova</u> <i>University of La Verne, CA, USA</i> <b>16:00 - 16:25</b>	<b>Drug-drug interactions severity prediction based on xenobiotic structural formulas and PASS prediction algorithm</b> <u>A. Dmitriev</u> Institute of Biomedical Chemistry, Moscow, Russia <b>16.00-16.15</b>	<b>Sequencing and assembly of transcriptome in non-photosynthetic plant <i>Lathraea squamaria</i> and its dynamics during the light and dark period of the day</b> <u>M.D. Logacheva,</u> Lomonosov Moscow state university, Moscow, Russia; Skolkovo institute of science and technology, Moscow, Russia <b>16:00-16:25</b>	<b>Pan-regulome: Integration of knowledge on gene regulation. Transnational cooperation</b> <u>A. Kel</u> GeneXplain GmbH, Wolfenbuettel, Germany, Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia <b>15:40-16:00</b>	<b>The point mutations in the fingers domain increase the fidelity of DNA synthesis on undamaged DNA and abrogate DNA translesion synthesis in Y-family of DNA polymerases</b> <u>A.V. Makarova</u> Institute of Molecular Genetics RAS, Moscow, Russia <b>15:40-16:00</b>	<b>The possibilities of a Universal computer model in the readiness assessment of the Russian regions resource to epidemics of especially dangerous infectious diseases</b> <u>L. Nizolenko,</u> State Research Center of Virology and Biotechnology Vector, Koltsovo, Russia <b>16:10-16:30</b>	

16:00 - 16:30		<p><b>NMR and DFT Study of the Mechanism for Increased Antitumor Activity of Carboplatin in Mixture with Cucurbit[7]uril</b>  <u>I. Mirzaeva</u>  Nikolaev Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia  <b>16.15-16.30</b></p>	<p><b>Investigating genetic control of pigmentation in mutant barley lines with RNA-seq</b>  <u>N. Shmakov</u>  ICG SB RAS, Novosibirsk, Russia  <b>16:25-16:50</b></p>	<p><b>Genome-wide analysis of long non-coding RNAs responsive to multiple nutrient stresses in <i>Arabidopsis thaliana</i></b>  <u>W. Wu</u>  Department of Bioinformatics; the State Key Laboratory of Plant Physiology and Biochemistry, College of Life Sciences, Zhejiang University, Hangzhou, P. R. China  <b>16:00-16:20</b></p>	<p><b>In vitro lesion bypass by human PrimPol</b>  <u>E.O. Boldinova</u>  Institute of Molecular Genetics RAS, Moscow, Russia  <b>16:00-16:20</b></p>	<p><b>Method of reconstruction of a sequence of non-ribosomal peptides from mass spectra with noise</b>  <u>E. Fomin</u>  ICG SB RAS, Novosibirsk, Russia  <b>16:30-16:50</b></p>
		<p><b>Investigation of Biological Effects of Cluster Complexes of Metals and Their Conjugates with Cyclodextrins in vivo and in vitro</b>  <u>T. Pozmogova</u>  ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia  <b>16.30-16.45</b></p>		<p><b>Quantifying genome sequence repeatability by Repeater</b>  <u>C. Feng</u>  Department of Bioinformatics, the State Key Laboratory of Plant Physiology and Biochemistry, College of Life Sciences, Zhejiang University, Hangzhou, China</p>	<p><b>Translesion DNA synthesis by DNA polymerase iota and its variants</b>  <u>E.S. Shilkin</u>  Institute of Molecular Genetics RAS, Moscow, Russia  <b>16:20-16:40</b></p>	
16:30 - 16:50		Closing remarks 16.45-16.50		<p><b>Versatile interactions and bioinformatics analysis of non-coding RNAs</b>  <u>Q. Chen</u>  Zhejiang University, Hangzhou, China</p>		

**Coffee-break 16.50-17.10**

<p><b>Digital medicine: present and future</b>  <b>Chairs:</b>  <u>A.Ju. Letyagin</u>  Novosibirsk, Russia;  <u>D.A. Afonnikov</u>  Novosibirsk, Russia</p>	<p><b>Bioinformatics and systems biology of plants</b></p>	<p><b>Section: Integrative bioinformatics and data analysis in systems biology</b>  <b>Chairs:</b>  Chairs: <i>Prof. Ming Chen</i>, Zhejiang University, China; <i>Prof Guoliang</i></p>	<p><b>SbPCD-2018</b></p>	<p><b>Afternoon session “Inverse problems in biology, medicine and social processes”</b>  <b>Chairs:.</b> <i>A.I. Ilyin</i>, Scientific Center of Anti-Infective Drugs, Kazakhstan; <i>Dr. O.I. Krivorotko</i>, Institute of Computational Mathematics and Mathematical Geophysics SB</p>
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			<i>Li</i> , Huazhong Agricultural University, Wuhan, China		RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia
<b>17.10-17.30</b>	<b>Plenary Lecture</b> <b>Big Data and Modeling in Clinical Diagnostics</b> <u>A.Yu. Letyagin</u> Research Institute of Clinical and Experimental Lymphology – Branch of the ICG SB RAS, Novosibirsk, Russia <b>17.10-17.40</b>	<b>Assembly and annotation of genomes of some species from the apomictic genus <i>Boechera</i> and evolutionary analysis of apomixis-associated genes</b> <u>V. Brukhin</u> Dobzhansky Center for Genome Bioinformatics, St. Petersburg State University, St. Petersburg; Komarov Botanical Institute RAS, St. Petersburg, Russia <b>17:10-17:35</b>	<b>Drug reposition as a promising strategy in therapy of cognitive deficits at neurodegenerative disorders</b> <u>M.A. Tikhonova</u> Institute of Physiology and Basic Medicine, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>17.10-17.30</b>	<b>TDP 1 inhibitors as potential antitumor drugs</b> <u>A. Zakharenko</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; <b>17:10-17:30</b>	<b>Inverse modeling of diffusion-reaction processes with image-type measurement data</b> <u>A. Penenko</u> Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia; <b>17:10-17:30</b>
			<b>Bioinformatics Platform for Genomic Island Detection and Analysis</b> <u>Q. Dai</u> Zhejiang Sci&Tech University, China <b>17.30-17.45</b>	<b>Structural and biochemical insights on new atypical FPG/NEI DNA – glycosylases</b> <u>A.V. Yudkina</u> SB RAS Institute of Chemical Biology and Fundamental Medicine, Novosibirsk, Russia; NSU, Novosibirsk, Russia; Stony Brook University, Stony Brook, US <b>17:30-17:50</b>	<b>Mathematical models of p53–microRNA and their applications</b> <u>S.D. Senotrusova</u> Institute of Computational Technologies SB RAS, Novosibirsk, Russia; <sup>2</sup> NSU, Novosibirsk, Russia <b>17:30-17:45</b>

<b>17.30-18.00</b>	<b>The Advantage of the Multidimensional Data Visualization for the Characterizing of the Immune System State</b> <u>M. Stakheyeva</u> Cancer Research Institute of Tomsk National Research Medical Center of RAS, Tomsk, Russia; Tomsk State University, Tomsk, Russia <b>17.40-17.55</b>	<b>De novo genome sequence of Karnal bunt pathogen (<i>Telitia indica</i>) of wheat</b> <u>S. Marla</u> ICAR.NBPGR., New Delhi, India <b>17:35-18:00</b>	<b>Novel PCR technology</b> <u>H. Zhao</u> Hangzhou Lifereal Biotechnology Co., Ltd., China <b>17:45-18.00</b>		<b>Investigation and numerical solving of a mathematical model of intracellular HIV dynamics: from ODE to PDE</b> <u>D. Yermolenko</u> Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>17:45-18:00</b>
	<b>Software "DoctorCT" for Modeling Images of Internal Organs, Based on Computer and Magnetic Resonance Imaging</b> <u>A. Mishvelov</u>	<b>Sequencing and Assembly of Mitochondrial Genomes in Three Conifer Species <i>Larix sibirica</i>, <i>Pinus</i></b>	Closing remarks of the section	<b>Processivity of DNA repair enzymes</b> <u>E. Dyatlova</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia	<b>The optimal control of stochastic differential equations arising in biology, economy and finance</b> <u>E. Kondakova</u> NSU, Novosibirsk, Russia

	North-Caucasian Federal University, Stavropol, Russia; Stavropol State Medical University, Stavropol, Russia <b>17.55-18.10</b>	<i>sibirica</i> and <i>Pinus sylvestris</i> <u>E. Bondar</u> Siberian Federal University, Krasnoyarsk, Russia <b>18:00-18:25</b>		<b>17:50-18:10</b>	<b>18:00- 18:15</b>
<b>18.00-18.30</b>	<b>Studying Calcium Signaling in Individual Suspended Platelets</b> <u>A.E. Moskalensky</u> NSU, Novosibirsk, Russia; Voevodsky Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia <b>18.10-18.25</b>				<b>Parameters sensitivity of PK-PD model parameters</b> <u>V. Lifenko</u> NSU, Novosibirsk, Russia; <sup>2</sup> Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia <b>18:15-18:30</b>
	<b>Up-to-date Digital Infrared Thermography in Biomedicine</b> <u>B.G. Vainer</u> Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>18.25-18.45</b>	<b>Discordant evolution of cellular genomes in peas (<i>Pisum L.</i>) as evidenced from complete sequences of plastid genomes and partial sequences of mitochondrial genomes</b> <u>O.E. Kosterin</u> ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>18:25-18:50</b>		<b>Lesion recognition by bifunctional DNA glycosylase Endo III and its catalytic mutants</b> <u>O.A. Kladova</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; <b>18:10-18:30</b>	<b>Inverse problem for partial differential equations in social networks</b> <u>T. Zvonareva</u> NSU, Novosibirsk, Russia; Novosibirsk, Russia <b>18:30-18:45</b>
<b>18.30-19.00</b>	<b>Closing remarks 18.40-18.45</b> <i>Closing ceremony and awarding</i> <u>A.Ju. Letyagin</u> Novosibirsk, Russia <u>V.V. Klimontov</u> Novosibirsk, Russia <b>18.45-19.00</b>				<b>Identifiability analysis of nonlinear dynamical system</b> <u>Zh. Bektemessov</u> al-Farabi Kazakh National University, Almaty, Kazakhstan <b>18:45-19:00</b>

## 23 August

	Room 3307	Room 3107	Room 3312	Room 3313	Room 3122
	<b>BioGenEvo-2018</b>	Animal Genetics	Proteomics	<b>FCRW-2018</b>	<b>MM-HPC-BBB-2018</b>
		<i>Chair:</i> Mikhail Moshkin, ICG SB RAS, Novosibirsk, RussiaF	<i>Chairs:</i> Sergey Peltek, ICG SB RAS, Novosibirsk, Russia Evgeny Nikolaev, Institute of Energy Problems of Chemical Physics RAS, Moscow, Russia; Vadim Govorun, Scientific Research Institute of Physical-Chemical Medicine, Moscow, Russia	Section: <b>Bioinformatics and educational programs</b> <i>Chairs:</i> Prof. Alexey G. Okunev, Novosibirsk State University, Novosibirsk, Russia; Prof. Ralf Hofestädt, Bielefeld University, Bielefeld, Germany; Prof. Ming Chen, Zhejiang University, China	<b>Morning session “Big Data in Bioinformatics”</b> <i>Chairs:</i> Dr. E.N. Pavlovskiy Novosibirsk State University, Novosibirsk, Russia; Dr. Yu.L. Orlov, ICG SB RAS, Novosibirsk, Russia

<p><b>9:00 - 9:30</b></p>	<p><b>Genome admixture components accurately predict quantitative functional traits in plants</b>  <u>T. V. Tatarinova</u>  Department of Biology, Division of Natural Sciences, University of La Verne, La Verne, CA, USA  <b>9:00 - 9:35</b></p>	<p><b>Genotyping of Nine Native Russian Cattle Breeds Combined with the 1000 Bull Genome Project Data Reveals Signatures of Selection and Adaptation in Russian Cattle Genomes</b>  <u>D.M. Larkin</u>  The Federal Research Center Institute of Cytology and Genetics, The Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia; Royal Veterinary College, University of London, London, UK  <b>09:00-09:30</b></p>	<p><b>A number of blood biochemical parameters and endothelium-associated urine proteins of healthy people at head down bed rest</b>  <u>L.Kh. Pastushkova</u>  Institute for Biomedical Problems - Russian Federation State Scientific Research Center, RAS, Moscow, Russia  <b>9:00 - 9:35</b></p>	<p><b>Epigenetic Correlation of Interleukin Expression between Cigarette Smoking and the Therapeutic Efficiency of Periodontitis</b>  <u>H.-M. Chang</u>  Department of Anatomy and Cell Biology, College of Medicine, Taipei Medical University, Taipei, Taiwan  <b>9:00-9:35</b></p>	<p><b>Advanced methods in machine learning for bioinformatics</b>  <u>E.N. Pavlovskiy</u>  NSU, Novosibirsk, Russia  <b>09:00-09:30</b></p>
<p><b>9:30 - 10:00</b></p>	<p><b>Comparison of evolutionary rates of the regions and nucleotide substitutions in the <i>Allium</i> plastomes</b>  <u>D.O. Omelchenko</u>  Lomonosov Moscow State University, Moscow, Russia; Skolkovo Institute of Science and Technology, Moscow Region, Russia  <b>9:35 - 10:00</b></p>	<p><b>Sequencing of Reindeer (<i>Rangifer tarandus</i>) Genomes: Insights into Evolution, Domestication and Adaptation</b>  <u>J. Kantanen</u>  Natural Resources Institute Finland, Jokioinen, Finland  <b>09:30-10:00</b></p>	<p><b>Development of Quantitative MRM Assays for the Measurement of 3,000 Proteins across 20 Mouse Tissues</b>  <u>C.H. Borchers</u>  University of Victoria - Genome British Columbia Proteomics Centre, Victoria, Canada; University of Victoria, Department of Biochemistry and Microbiology, Petch, Canada; Gerald Bronfman Department of Oncology, Jewish General Hospital, McGill University, Canada; Jewish General Hospital Proteomics Laboratory, McGill University, Lady Davis Institute, Canada  <b>9:35 - 10:00</b></p>	<p><b>System biology researches on cancer in Cuba</b>  <u>J.R. Fernandez-Masso</u>  Pharmaceutical Department, Center for Genetic Engineering and Biotechnology, Cuba  <b>9:35-10:10</b></p>	<p><b>Bayesian approach to big data processing: problems and perspectives</b>  <u>M.A. Marchenko</u>  Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia NSU, Novosibirsk, Russia  <b>09:30-10:00</b></p>
<p><b>10.00 - 10:30</b></p>	<p><b>Mirtrons as a possible inherent source of silencing variability</b>  <u>P.S. Vorozheykin</u>  NSU, Novosibirsk, Russia  <b>10:00 - 10:25</b></p>	<p><b>Genome-wide Association Study for Body Temperature Maintenance Under the Cold Stress in Siberian Cattle</b>  <u>A.V. Igoshin</u>  ICG SB RAS, Novosibirsk, Russia  <b>10:00-10:20</b></p>	<p><b>Integrated experimental and computational pipeline for proteome-wide in tissue crosslinking analysis</b>  <u>E.V. Petrotchenko</u>  University of Victoria – Genome British Columbia Protein Centre, University of Victoria, Vancouver Island Technology Park, Victoria, Canada</p>	<p><b>Heterotachy in evolution of proteins associated with mitochondrial function in rodents and primates: opposite protein functions but common ecological role</b>  <u>K. V. Gunbin</u>  NSU, Novosibirsk, Russia; Immanuel Kant Federal Baltic University, Kaliningrad, Russia</p>	<p><b>Complex information system to study common energy metabolic deficiency under neurodegenerative diseases DEPPDB v.3: a portal to study electrostatic and other physical properties of genome DNA and its elements</b>  <u>A. Osypov</u></p>

			<b>10:00 - 10:25</b>		Institute of Higher Nervous Activity and Neurophysiology RAS, Moscow, Russia; Institute of Theoretical and Experimental Biophysics RAS, Pushchino MR, Russia <b>10:00-10:50</b>
<b>10.30 - 10:50</b>	<b>Hidden diversity of myxomycetes: problems and perspectives</b> <u>O.N. Shchepin</u> Komarov Botanical Institute of the Russian Academy of Sciences, Saint Petersburg, Russia; Institute of Botany and Landscape Ecology, EMA University of Greifswald, Greifswald, Germany <b>10:25 - 10:50</b>	<b>Do rodent species adopt to underground lifestyle by different ways?</b> <u>O. Bondareva</u> Zoological Institute RAS, Saint Petersburg, Russia <b>10:20-10:40</b>	<b>Dynamics of <i>S.cerevisiae</i> proteomic and transcriptomic response to changes in aeration conditions</b> <u>A. Rozanov</u> ICG SB RAS Novosibirsk, Russia <b>10:25 - 10:50</b>	<b>Analysis of alternative splicing by RNA-seq data</b> <u>V. N. Babenko</u> ICG SB RAS, Novosibirsk, Russia <b>10:10-10:35</b>	
<b>Coffee Break 10:50 - 11:10</b>					
<b>11.10 - 11:30</b>	<b>Diel cycle of the tropical air microbiome</b> <u>E.S. Gusareva</u> Singapore Centre for Environmental Life Sciences Engineering, Nanyang Technological University, 60 Nanyang Drive, Singapore <b>11:10 - 11:45</b>	<b>Effect of early experience on neuronal and behavioral responses to con- and heterospecific odors in three closely related <i>Mus</i> taxa: Epigenetic contribution in formation of precopulatory isolation</b> <u>E. Kotenkova</u> Severtsov Institute of Ecology and Evolution RAS, Moscow, Russia <b>11:10-11:50</b>	<b>Human blood proteins after long duration space flights</b> <u>D.N. Kashirina</u> Institute for Biomedical Problems – Russian Federation State Scientific Research Center RAS, Moscow, Russia <b>11:10 - 11:30</b>	<b>Bioinformatics: science of a toolbox?</b> <u>T. V. Tatarinova</u> University of La Verne, La Verne, CA, USA <b>11:10-11:30</b>	<b>Gene network analysis of complex diseases using GenCoNet</b> <u>O. Zolotareva</u> Bielefeld University, Bioinformatics Medical Informatics Department, Bielefeld, Germany; Bielefeld University, International Research Group “Computational Methods for the Analysis of the Diversity and Dynamics of Genoms”, Bielefeld, Germany <b>11:10-11:30</b>
<b>11.30 – 12.00</b>	<b>Microbial diversity in the hot spring Faust Lake, Kunashir Island</b> <u>A. Rozanov</u> ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>11:45 - 12:10</b>	<b>Inheritance of the Acoustic Signal Characters in Interspecific Hybrids of Bank (<i>Clethrionomys glareolus</i>) and Tianshan (<i>C. centralis</i>) Voles</b> <u>M. Rutovskaya</u> A.N. Severtsov Institute of Ecology and Evolution RAS, Moscow, Russia <b>11:50-12:10</b>	<b>Residue-residue contacts in modeling protein structure</b> <u>M. Kotulska</u> Wroclaw University of Science and Technology, Faculty of Fundamental Problems of Technology, Department of Biomedical Engineering, Wroclaw, Poland <b>11:30 - 11:50</b>	<b>Integrating computational systems biology and bioinformatics in research and education</b> <u>M. J. Djordjevic</u> Faculty of Biology, Institute of Physiology and Biochemistry, University of Belgrade, Serbia <b>11:50-12:10</b>	<b>Assessment of software for somatic single nucleotide variant identification using simulated whole-genome sequencing data of cancer</b> <u>W. Kittichotirat</u> Pilot Plant Development and Training Institute, King Mongkut’s University of Technology Thonburi, Bangkok, Thailand <b>11:30-11:50</b>
<b>12.00 – 12.30</b>	<b>Opisthorchiidae triad: comparative genomics of the carcinogenic liver flukes using a</b>	<b>Host <i>Drosophila</i> fitness and hormonal status depends on the genotype of <i>Wolbachia</i> symbiont</b>	<b>Top-Down Venomics: A De Novo Sequencing Approach</b> <u>K. Vyatkina</u>	<b>Round table discussion &amp; Seminar on Neuronet project Using drift diffusion model to understand age related</b>	<b>The software and database for Vertebrate imperfect mtDNA repeats annotation</b> <u>V.A. Shamanskiy</u>

<p><b>draft genome of <i>Opisthorchis felineus</i></b>  <u>N. Ershov</u>  ICG SB RAS, Novosibirsk, Russia</p> <p><b>12:10 - 12:35</b></p>	<p><u>N.E. Gruntenko</u>  ICG SB RAS, Novosibirsk, Russia</p> <p><b>12:10-12:35</b></p>	<p>Saint Petersburg State University, Saint Petersburg, Russia; Saint Petersburg Academic University of the Russian Academy of Sciences, Saint Petersburg, Russia; ITMO University, Saint Petersburg, Russia; <sup>4</sup> Saint Petersburg State Electrotechnical University “LETI”, Saint Petersburg, Russia</p> <p><b>11:50 - 12:10</b></p>	<p><b>differences in inhibitory control</b>  <u>A.C. Tsai</u>  NeuroImaging group at the Institute of Statistical Science, Academia Sinica, Taipei, Taiwan.</p> <p><b>National technological initiative Neuronet</b>  <u>Y. L. Orlov</u>  ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia</p> <p><b>International educational program on bioinformatics at Tomsk, Russia</b>  <u>O. G. Maslennikova</u>  Tomsk State University, Tomsk, Russia</p> <p><b>Bioinformatics and educational programs at NSU</b>  <u>A. G. Okuney</u>  NSU, Novosibirsk, Russia</p> <p><b>Ecological monitoring and systems biology approaches in Tyumen region</b>  <u>A. Tolstikov</u>  Tyumen State University, Tyumen, Russia</p>	<p>School of Life Science, Immanuel Kant Federal Baltic University, Kaliningrad, Russia</p> <p><b>11:50-12:05</b></p>
	<p><b>Synapsis and recombination in intra- and interspecies hybrids between two voles species <i>Microtus (Alexandromys) evoronensis</i> n <i>M. maximowiczii</i></b>  <u>T. Bikchurina</u>  ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia</p> <p><b>12:35-12:55</b></p>	<p><b>ARGO_CEL: GPU Based Approach For Potential Composite Elements Discovery In Large DNA Datasets</b>  <u>O. Vishnevsky</u>  ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia</p> <p><b>12:20-12:35</b></p>		
<p><b>Larks, owls, swifts and woodcocks among the fruit flies: heritable individual differences in the sleep-wake pattern induced by long and, sometimes, hot siberian summer days</b>  <u>L.P. Zakharenko</u>  ICG SB RAS, Novosibirsk, Russia</p> <p><b>12:55-13:15</b></p>	<p><b>Investigation of proteome of Baikal endemic amphipod <i>Eu-limnogammarus cyaneus</i> (Dybowsky, 1874) using LC-MS</b>  <u>D. Bedulina</u>  Irkutsk State University, Irkutsk, Russia</p> <p><b>12:10 - 12:35</b></p>	<p><b>Computer system for reconstructing and analyzing random structural models of protein-protein interaction networks</b>  <u>N.L. Podkolodnyy</u>  ICG SB RAS, Novosibirsk, Russia; Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia</p> <p><b>12:35-12:50</b></p>	<p><b>Developing FoldGO, the Tools for Multifactorial Functional Enrichment Analysis</b>  <u>A.M. Mukhin</u>  ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia</p> <p><b>12:50-13:05</b></p>	

Poster session and lunch 13:00 - 15:00

Intel workshop 13:30-14:30

	Room 3307	Room 3107	Room 3312	Room 3318	Room 3122
	<b>BioGenEvo-2018</b>	<b>Animal Genetics</b>	<b>Proteomics</b>		<b>Afternoon session</b> <b>“Mathematical modeling of Gene Networks”</b> <i>Chairs: Prof. V.P. Golubyatnikov, Dr. N.L. Podkolodnyy</i> <b>15:00–19:00</b>
15:00-15:30	<b>Inferring phylogeny among cryptic lineages of <i>Eisenia nordenskioldi nordenskioldi</i> (Lumbricidae) based on transcriptomic data</b> <u>S.V. Shekhovtsov</u> ICG SB RAS, Novosibirsk, Russia; Institute of Biological Problems of the North FEB RAS, Magadan, Russia <b>15:00 - 15:25</b>	<b>High-Density Genotyping of 15 Native Russian Sheep Breeds Reveals Genomic Regions Under Selection Related to Domestication, Acclimation and Economically Important Traits</b> <u>D.M. Larkin</u> ICG SB RAS, Novosibirsk, Russia; Royal Veterinary College, University of London, London, UK <b>15:00-15:30</b>	<b>Nonthermal impact of terahertz (THz) radiation on living systems</b> <u>S.E. Peltek</u> ICG SB RAS, Novosibirsk, Russia <b>15:00 - 15:35</b>	<b>Organization of education process for research in the field of bioinformatics and systems biology</b>	<b>The Multiplex Phase Interlocker: A Novel and Robust Molecular Design Synchronizing Transcription and Cell Cycle Oscillators</b> <u>M. Barberis</u> Swammerdam Institute for Life Sciences, University of Amsterdam, Amsterdam, The Netherlands <b>15:00-15:30</b>
	<b>Comparative analysis of transcriptome from different sympatric morphs of Dolly Varden <i>Salvelinus malma</i> from the Kronotskoe Lake</b> <u>E.A. Konorov</u> Moscow State University, Moscow, Russia <b>15:25 - 16:50</b>	<b>Hippocampal differentially expressed genes between tame and aggressive foxes are included in pathways associated with stress, behavior and adult neurogenesis</b> <u>Yu. Herbeck</u> ICG SB RAS, Novosibirsk, Russia <b>15:30-15:50</b>			
15:30-16:00		<b>Gene Expression Related to Aggressive Behavior on Rat Model</b> <u>I.V. Chadaeva</u> ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>15:50-16:10</b>	<b>SRM-based Approach for <math>\beta</math>-lactamases Profiling</b> <u>E. Ilgisonis</u> Institute of Biomedical Chemistry, Moscow, Russia <b>15:35 - 16:00</b>		<b>Circadian rhythms: analysis and modeling of gene expression</b> <u>N.L. Podkolodnyy</u> ICG SB RAS, Novosibirsk, Russia; Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia <b>15:30-16:00</b>

16:00-16:20		<p><b>Genotype of recipient mother modulate body composition and immunocompetence of transferred progenies</b>  <u>L. Gerlinskaya</u>  ICG SB RAS, Novosibirsk, Russia  <b>16:10-16:40</b></p>	<p><b>The good, the bad, the aberrant: the role of prevailing splice-forms in proteomic studies</b>  <u>E. Poverennaya</u>  Institute of Biomedical Chemistry, Moscow, Russia  <b>16:00 - 16:25</b></p>		<p><b>Population-based mathematical modeling antihypertensive drugs effect using BioUML platform</b>  <u>I.N. Kiselev</u>  Institute of Computational Technologies, SB RAS, Novosibirsk; LLC «BIOSOFT.RU», Novosibirsk, Russia  <b>16:00-16:20</b></p>
		<p><b>Germ Cell Migration under GAGA-factor Control</b>  <u>N. Dorogova</u>  ICG SB RAS, Novosibirsk, Russia  <b>16:40-17:00</b></p>	<p><b>The search of blood-based biomarkers for schizophrenia by proteomics methods</b>  E. Dmitrieva  Mental Health Research Institute, Tomsk, Russia  <b>16:25 - 16:50</b></p>		<p><b>Estimates from evolutionary algorithms theory applied to gene design</b>  <u>A. Eremeev</u>  The Institute of Scientific Information for Social Sciences RAS, Moscow, Russia; Omsk Branch of Sobolev Institute of Mathematics SB RAS, Omsk, Russia  <b>16:20-16:40</b></p>
<b>Coffee Break 16:50 - 17:10</b>					
	<b>Proteomics</b>		<b>MM-HPC-BBB-2018</b>		
17:10-17:30	<p><b>The Size of the Human Proteome: How Many Protein Species are Detectable Today?</b>  <u>E. Ponomarenko</u>  Institute of Biomedical Chemistry, Moscow, Russia  <b>17:10 - 17:35</b></p>		<p><b>HEDGE: Highly accurate GPU-powered protein-protein docking pipeline</b>  <u>T. Ermak</u>  <i>BIOCAD, Saint Petersburg, Russia</i>  <b>17:10-17:30</b></p>		
17:30-17:50	<p><b>Synergy of shotgun-MS and 2DE for analysis of proteome heterogeneity</b>  <u>O. Kiseleva</u>  Institute of Biomedical Chemistry, Moscow, Russia  <b>17:35 - 18:00</b></p>		<p><b>Agent-based modelling of genetic deafness propagation under various sociodemographic conditions</b>  <u>S.A. Lashin</u>  <sup>1</sup> ICG SB RAS, Novosibirsk, Russia; <sup>2</sup> NSU, Novosibirsk, Russia  <b>17:30-17:50</b></p>		
17:50-18:30	<p><b>The analysis of blood proteins by ESI-mass spectrometry for endogenous mental disorders</b>  <u>A. A. Seregin</u>  Mental Health Research Institute, Tomsk National Research Medical Center of the Russian Academy of Sciences, Tomsk, Russia  <b>18:00 - 18:25</b></p>		<p><b>On Existence of a Piecewise Smooth Cycle in one Asymmetric Gene Network Model with Piecewise Linear Equations</b>  <b>On Cycles in Models of Asymmetric Circular Gene Networks</b>  <u>V. Golubyatnikov</u>  <i>Sobolev Institute of Mathematics SB RAS, Novosibirsk, Russia; <sup>2</sup> NSU, Novosibirsk, Russia</i>  <b>17:50-18:20</b></p>		
18:30-18:50			<p><b>An Inverse Problem in Modelling of a Symmetric Gene Network Regulated by Negative Feedbacks</b>  <u>V. Gradov</u>  <i>NSU, Novosibirsk, Russia</i></p>		

18:20-18:40

## 24 August

	Room 3307	Room 3107	Room 3318	Room 3122
	Genomics, Transcriptomics and Bioinformatics	Animal Genetics	CSGB- 2018 <u>Co-Chairs:</u> <i>L.I.Aftanas</i> , Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia; <i>Yi-Ling Yang</i> , Department of Biochemical Science and Technology, National Chia-Yi University, Chia-Yi, Taiwan; <i>N.V. Volf</i> , Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia	MM-HPC-BBB-2018 <b>Morning session “Analysis of dynamical systems.”</b> <i>Chairs: S. Kabanikhin, N. Novikov</i> , Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia
<b>09:00-09:30</b>	<b>Population genetic history the red-necked stint</b> <u>F. Kondrashov</u> Institute of Science and Technology Austria (IST Austria), Klosterneuburg, Austria <b>9:00 - 9:40</b>	<b>Exploring neuroprotective potential of astrocytes</b> <u>S. Kasparov</u> University of Bristol, United Kingdom <b>09:00-09:45</b>	<b>Signatures of Brain Oscillatory Networks Predict Response to Therapy in Depression and Anxiety</b> <u>L.I. Aftanas</u> Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia <b>09:00-09:20</b>	<b>On the construction of the cerebral hemodynamics model based on clinical data</b> <u>A.A. Cherevko</u> Lavrentyev Institute of Hydrodynamics of SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia; <b>09:00-09:30</b>
			<b>MicroRNA-210 mediates the hippocampal neurogenesis following traumatic brain injury</b> <u>Y.-L. Yang</u> Department of Biochemical Science and Technology, National Chia-Yi University, Chia-Yi, Taiwan; <b>09:20-09:40</b>	
<b>09:30–10:00</b>	<b>Selfish elements drive mitochondrial and nuclear genome size in opposite directions</b> <u>A.A. Mikhailova</u> School of Life Science, Immanuel Kant Federal Baltic University, Kaliningrad, Russia <b>9:40 - 10:00</b>	<b>IGNG1-IGNG3 locus and its possible role in the multiple sclerosis</b> <u>M.Fridman</u> Vavilov Institute of General Genetics, RAS, Moscow, Russia <b>09:45-10:05</b>	<b>Using drift diffusion model to understand age related differences in inhibitory control</b> <u>A.C. Tsai</u> NeuroImaging group at the Institute of Statistical Science, Academia Sinica, Taipei, Taiwan <b>09:40-10:00</b>	<b>Spatial heterogeneity influences evolutionary scenarios in microbial communities explained by ecological stratification: a simulation study</b> <u>A.I. Klimenko</u> ICG SB RAS, Novosibirsk, Russia NSU, Novosibirsk, Russia <b>09:30–09:50</b>
<b>10:00-10:30</b>	<b>Determining the Pathogenicity of Genetic Variants Affecting Splicing in Mendelian Disorders</b> <u>M. Skoblov</u> Research Center for Medical Genetics, Moscow, Russia ; Moscow Institute of Physics and Technology (State University), Dolgoprudny, Russia	<b>Genetic control of the stress-sensitivity in hypertensive ISIAH rats</b> <u>O. Redina</u> Institute of Cytology and Genetics SB RAS, Novosibirsk,Russia; <sup>2</sup> NSU, Novosibirsk, Russia <b>10:05-10:25</b>	<b>Effect of 5-HTTLPR on connectivity and topological properties of resting state EEG networks</b> <u>G. Knyazev</u> , Institute of Physiology and Basic Medicine, Novosibirsk, Russia <b>10:00-10:20</b>	<b>The optimal feedbacks in the mathematical model of chemo-therapy for a nonmonotonic therapy function</b> <u>N. Novoselova</u> Krasovskii Institute of Mathematics and Mechanics, Ural Branch of the RAS, Yekaterinburg, Russia Ural Federal University, Yekaterinburg, Russia



	<b>10:00 - 10:25</b>			<b>09:50-10:10</b>
	<b>Search for a hidden structure in genomic data based on a compressing autoencoder</b> <u>A. Zarubin</u> Toms National Research Medical Center of the Russian Academy of Sciences, Research Institute of Medical Genetics, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia <b>10:25 - 10:40</b>	<b>Selected rat strains HT, LT as a model for the study of dysadaptation states dependent on the level of excitability of the nervous system</b> <u>N.A. Dyuzhikova</u> Pavlov Institute of Physiology of the RAS, St. Petersburg, Russia <b>10:25-10:50</b>	<b>Impact of the Intellectual Environment of Professional Activity on Resting State EEG in Older Adults</b> <u>N. Volf</u> Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>10:20-10:40</b>	<b>Fighting Celiac Disease: Improvement of pH-Stability of Cathepsin L by Computational Design</b> <u>A. Chugunov</u> National Research University Higher School of Economics, Moscow, Russia; <sup>2</sup> M.M. Shemyakin & Yu.A. Ovchinnikov Institute of Bioorganic Chemistry, RAS, Moscow, Russia <b>10:10-10:30</b>
<b>10:30-10:50</b>	<b>BD Rhapsody: technologies for quantitative analysis of transcriptome at the cellular populations and single cells levels</b> <u>A. Evteev</u> BioLine, St. Petersburg, Russia, Silver Sponsor <b>10:40 - 10:55</b>		<b>Vitamin D<sub>3</sub> affective-related disorders and perimenopause</b> <u>J. Fedotova</u> P. Pavlov Institute of Physiology RAS, St. Petersburg, Russia; ITMO University, St. Petersburg, Russia <b>10:40-11:00</b>	<b>The uniqueness of the solution of the two-dimensional direct problem is the propagation of the action potential along the nerve fiber</b> <u>A.J. Satybaev</u> Osh Technological University, Osh, Kyrgyzstan <b>10:30-10:50</b>
<b>Coffee break 10:50-11:10</b>				
<b>11:10 - 11:50</b>	<b>The Genomic Basis of Human Lifespan</b> <u>P. K Joshi</u> Centre for Global Health Research, Usher Institute of Population Health Sciences and Informatics, University of Edinburgh, Teviot Place, Edinburgh, United Kingdom; Institute of Social and Preventive Medicine, University Hospital of Lausanne, Lausanne, Switzerland <b>11:10 - 11:50</b>	<b>Features of the autophagy process during its induction by 48-h fasting and inhibition by chloroquine in the rat liver</b> <u>O.S. Kozhevnikova</u> ICG SB RAS, Novosibirsk, Russia <b>11:10-11:30</b>	<b>Psychophysiological predictors of effective adaptation to the allostatic load of the mountain climbers</b> <u>S. Krivoschekov</u> Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia <b>11:15-11:30</b>	<b>Creation of a modular model of metabolic processes in skeletal muscles during moderate physical load using BioUML platform</b> <u>I.N. Kiselev</u> Institute of Computational Technologies, SB RAS, Novosibirsk; LLC «BIOSOFT.RU» Ltd., Novosibirsk; Institute of Physiology and Basic Medicine, Novosibirsk, Russia <b>11:10-11:25</b>
		<b>The Hormonal Mechanism Of Heat Stress Effect On The Carbohydrate Metabolism In <i>Drosophila melanogaster</i> Females</b> <u>M.A. Eremina</u> ICG SB RAS, Novosibirsk, Russia <b>11:30-11:50</b>	<b>Interference Reconditioning after Visual Memory Training in Older Adults</b> <u>O.M. Razumnikova</u> Research Institute of Physiology and Basic Medicine, Novosibirsk; Novosibirsk State Technical University, Russia <b>11:30-11:45</b>	<b>Asymptotic stability of solutions in one model of disease</b> <u>M. A. Skvortsova</u> Sobolev Institute of Mathematics SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia <b>11:25-11:40</b>
<b>11:50-12:10</b>	<b>Genetic regulation of immunoglobulin g <i>n</i>-glycosylation</b> <u>L. Klaric</u>		<b>Reconstruction of Leptin and Dopamin Molecular Counter Regulation in Glutamatergic Hippocampal Synapses</b> <u>A.L. Proskura</u>	<b>The 2D coefficient inverse problem of the ultrasound waves propagation</b> <u>N. Novikov</u>



15:00 – 15:30 Plenary Lecture by Evgeny Rogaev, University of Massachusetts, USA \\ Room 3307		
	Room 3307	Room 3318
		<b>15:30-19:00</b> Evening session <u>Co-Chairs:</u> <i>Hung-Ming Chang, Taipei Medical University, Taipei, Department of Anatomy and Cell Biology, Taiwan;</i> <i>M.A. Tikhonova, Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia;</i> <i>N.P. Bondar, ICG SB RAS, Novosibirsk, Russia</i>
<b>15:30 – 16:00</b> <b>Profiling Neuronal Epigenomes in a Mouse Model of Alcohol Use Disorder</b> <u>I. Ponomarev</u> Waggoner Center for Alcohol and Addiction Research, The University of Texas, Austin, Texas, USA <b>15:30 – 16:00</b>		<b>Plasmon-activated water is an effective agent in suppressing the progression of dental, metabolic, and neurodegenerative disorders</b> <u>H.-M. Chang</u> Department of Anatomy and Cell Biology, Taipei Medical University, Taipei, Taiwan <b>15:30-15:50</b>
<b>16:00 – 16:30</b> <b>Comparative transcriptomics of the effects of prionization and inactivation of the swi1 protein in <i>Saccharomyces cerevisiae</i></b> <u>K.S. Antonets</u> Laboratory for Proteomics of Supra-Organismal Systems, All-Russia Research Institute for Agricultural Microbiology, St. Petersburg, Russia; Dept. of Genetics and Biotechnology, St. Petersburg State University, St. Petersburg, Russia <b>16:00 – 16:30</b>		<b>Ionic imaging and bio-energetic analysis of club drug induced cognitive deficiency by time-of-flight secondary ion mass spectrometry (TOF-SIMS)</b> <u>F.-D. Mai</u> Department of Biochemistry and Molecular Cell Biology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan <b>15:50-16:10</b>
<b>16:30 – 16:50</b> <b>Molecular pathology of carotid body tumors</b> <u>N. A. Kudryavtseva</u> Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia; National Medical Research Radiological Center, Ministry of Health of the Russian Federation, Moscow, Russia <b>16:30 – 16:50</b>		<b>Innovatively therapeutic strategy on Alzheimer's disease by daily drinking plasmon-activated water</b> <u>C.H. Cheng</u> <b>Department of Biochemistry and Molecular Cell Biology, Taipei Medical University, Taipei, Taiwan</b> <b>16:10-16:30</b>
		<b>Neuroprotective effects of ceftriaxone: insights from <i>in vitro</i> and <i>in vivo</i> models</b> <u>M.A. Tikhonova</u> Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia; <sup>2</sup> NSU, Novosibirsk, Russia <b>16:30-16:50</b>
<b>Coffee break 16:50 – 17:10</b>		
<b>17:10 - 17:40</b> <b>Bioinformatics approach for prediction of metabolic capabilities for synthesis of essential vitamins and amino acids in human gut microbiome</b> <u>G.A. Ashniev</u> Institute for Information Transmission Problems, RAS, Moscow, Russia <b>17:10 - 17:40</b>		<b>Cystatin C as regulator of autophagy in brain of transgenic mice with model of Parkinson's disease</b> <u>T.A. Korolenko</u> <i>Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia</i> <b>17:10 -17:25</b>
<b>17:40 – 18:10</b> <b>New method for estimation of number of transcription factor binding sites using results of processing of ChIP-seq data by different peak callers</b>		<b>The Potential Impact of Periodontitis on the Pathogenesis of Parkinson's Disease and Cognitive Deficits</b> <u>T.Y. Renn</u> <i>Graduate Institute of Medical Sciences, Taipei Medical University, Taipei, Taiwan</i>

	<p><u>S. Kolmykov</u> Biosoft.Ru Ltd., Novosibirsk, Russia; ICG SB RAS, Novosibirsk, Russia <b>17:40 – 18:10</b></p>	<p><b>17:25-17:40</b> <b>Revealing the basis of energy metabolic deficiency common to neurodegenerative diseases with differential expression meta-analysis</b> <u>A. Osypov</u> Institute of Higher Nervous Activity and Neurophysiology RAS, Moscow, Russia; Institute of Theoretical and Experimental Biophysics RAS, Pushchino MR, Russia <b>17:40-17:55</b></p>
	<p><b>Zebrafish early neural crest differentiation to pigment cells of different types</b> <u>V. Makeev</u> Vavilov Institute of General Genetics, RAS, Moscow, Russia <b>18:10 – 18:40</b></p>	<p><b>Consequences of early life stress in mice: transcriptional and epigenetic hallmarks in frontal cortex and hippocampus</b> <u>N.P. Bondar</u> ICG SB RAS, Novosibirsk, Russia; National Research NSU, Novosibirsk, Russia <b>17:55-18:10</b></p>
<p><b>18:10 – 18:40</b></p>		<p><b>The Psychological and EEG Effects of 5-HTTLPR Gene Polymorphism Among People from Different Ethnic Groups in Siberia</b> <u>A.N. Savostyanov</u> Institute of Physiology &amp; Basic Medicine, Novosibirsk, Russia; ICG SB RAS, Novosibirsk, Russia; NSU, Novosibirsk, Russia; Tuvan State University, Kyzyl, Russia <b>18:10-18:25</b></p> <p><b>A system for remote recognition of emotions from a facial expression</b> <u>G.R. Khazankin</u> Scientific-Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia <b>18:25-18:40</b></p>
		<p><b>Closing Ceremony 18:40-19:00</b></p>

## POSTERS

### SECTION

«Systems Computational Biology»

21 August, Tuesday

SCB1 **Methane utilization in *Methylomicrobium alcaliphilum* 20Z<sup>R</sup>: New routes of C<sub>1</sub>-metabolism**  
Ilya R. Akberdin<sup>1,2,3,\*</sup>, Merlin Thompson<sup>1</sup>, Richard Hamilton<sup>1</sup>, David Collins<sup>1</sup> and Marina G. Kalyuzhnaya<sup>1,4</sup>

<sup>1</sup> Department of Biology, San Diego State University, San Diego, USA; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>3</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>4</sup> Viral Information Institute, San Diego State University, San Diego, USA

SCB2 **A Catalog of Human Genes and a Gene Network Controlling Feeding Behavior and Body Weight**

Ignatieva E.V.

*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*

SCB3 **Infrastructure Systems Biology Europe (ISBE): Emergence of Innovative Systems Biology Servicing**

Alexey Kolodkin<sup>1,2,3,4,5</sup>, Anna Maria Colangelo<sup>6</sup>, Lilia Alberghina<sup>6</sup>, Raju Prasad Sharma<sup>7</sup>, Vikas Kumar<sup>7</sup>, Danyel Jennen<sup>8</sup>, Jacco J. Briede<sup>8</sup> and Hans V. Westerhoff<sup>1,4,5,9</sup>

*1-Infrastructure for Systems Biology Europe (ISBE); 2-Luxembourg Centre for Systems Biomedicine, University of Luxembourg, LUXEMBOURG; 3-Federal Centre Institute of Cytology and Genetics of Siberian Division of the Russian Academy of Sciences, RUSSIA; 4-Molecular Cell Physiology, VU University Amsterdam, THE NETHERLANDS; 5-Synthetic Systems Biology, SILS, University of Amsterdam, THE NETHERLANDS; 6-SysBio Centre of Systems Biology, University of Milano-Bicocca, ITALY; 7-Center of Environmental Food and Toxicological Technology (TecnATox), Departament d'Enginyeria Quimica, Universitat Rovira i Virgili, Spain; 8-Department of Toxicogenomics, Maastricht University, THE NETHERLANDS; 9-Manchester Centre for Integrative Systems Biology, UK*

SCB4 **The Metabolic Pathways, Metabolites and Signal Transduction**

Chanchal K Mitra

*Department of Biochemistry, University of Hyderabad, 500046 Hyderabad, India*

SCB5 **Pulse Wave Velocity Measurement in the Human Radial Artery**

Boris G. Vainer

*Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*

SCB6 **GENE NETWORKS OF HUMAN HEARING IMPAIRMENTS: RECONSTRUCTION AND ANALYSIS**

V.I. Zamyatin<sup>1,2\*</sup>, Z.S. Mustafin<sup>1,2</sup>, E.V. Ignatieva<sup>1,2</sup>, Yu.G. Matushkin<sup>1,2</sup>, O.L. Posukh<sup>1,2</sup>, S.A. Lashin<sup>1,2</sup>

*1 Federal Research Center Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; 2 Novosibirsk State University, Novosibirsk, Russia*

SCB7 **Circadian Rhythm of Biological Processes in Mouse Liver and Kidney: Analysis of RNA-seq and Ribosome Profiling Data**

N.L. Podkolodnyy<sup>1,2\*</sup>, N.N. Tverdohkleb<sup>1,3</sup>, O.A. Podkolodnaya<sup>1</sup>

*1 Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

*2 Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia*

*3 Novosibirsk State University, Novosibirsk, Russia*

**SECTION**

«Systems Biology of Aging»

21 August, Tuesday

SBA1 **Maintaining pH of the Culture Medium in Cytogerontological Experiments: Effect on the Cell Viability and the Shape of the Cells' Survival Curve**

G.V. Morgunova, A.A. Klebanov, A.N. Khokhlov

*School of Biology, Lomonosov Moscow State University, Moscow, Russia*

SBA2 **Approximation of the Growth and Survival Curve of a Non-Subcultured Cell Culture within the Framework of the Stationary Phase Aging Model**

A.A. Klebanov, G.V. Morgunova, A.N. Khokhlov

*School of Biology, Lomonosov Moscow State University, Moscow, Russia*

SBA3 **Neurotrophin signaling pathway in development of AMD-like retinopathy**

M. D. Matytsin, O. S. Kozhevnikova, E. A. Rudnitskaya, D. V. Telegina

*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

SBA4 **Contribution of Neuroinflammation to the Development of Alzheimer's Disease-Like Pathology in OXYS Rats**

O.Yu. Koneva<sup>1,2</sup>, E.A. Rudnitskaya<sup>1</sup>, Yu.V. Rumyantseva<sup>1</sup>, N.A. Stefanova<sup>1</sup>

*<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia*

SBA5 **Analysis of metabolic pathways associated with neurogenesis in the retina of OXYS rat –model of age-related macular degeneration**

D.V. Telegina, O.S. Kozhevnikova, N.G. Kolosova

*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

SBA6 **Alterations of Neurogenesis during Development of Alzheimer's Disease-Like Pathology in OXYS Rats**

A.O. Burnyasheva, N.G. Kolosova, N.A. Stefanova, E.A. Rudnitskaya

*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

SBA7 **Search for single-nucleotide polymorphisms associated with accelerated senescence in OXYS rats**

V. Devyatkin<sup>1,2</sup>, O. Redina<sup>1</sup>, N. Muraleva<sup>1</sup>

<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*

SBA8 **Apoptosis and autophagy alterations are involved in the development of Alzheimer disease-like pathology in OXYS rats**

G. K. Suvorov, D. V. Telegina<sup>1</sup>, N. A. Stefanova<sup>1</sup>.

*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

SBA9 **MAPK signaling pathway in development of Alzheimer's disease**

N. Muraleva

*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

## SYMPOSIUM

### «Systems biology of DNA repair processes and programmed cell death»

SbPCD-2018

21 August 2018

SbPCD1 **DNA polymerases beta and lambda: gap-filling synthesis on the intact and damaged DNA templates in base excision repair**

E.A. Maltseva, L.V. Starostenko, O.I. Lavrik, N.I. Rechkunova

*Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia*

SbPCD2 **Disaccharide nucleosides as inhibitors of DNA repairing enzymes**

M. Drenichev<sup>1</sup>, A. Komarova<sup>2,3</sup>, N. Dyrkheeva<sup>2</sup>, I. Kulikova<sup>1</sup>, V. Oslovsky<sup>1</sup>, O. Zakharova<sup>2</sup>, A. Zakharenko<sup>2</sup>, S. Mikhailov<sup>1</sup>, O. Lavrik<sup>2</sup>

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SbPCD3 **PARPs and PARGs orchestrate the assembly/disassembly of FUS/Poly(ADP-ribose) compartments at DNA damage sites and FUS translocation to cytoplasmic stress granules**

Singatulina<sup>1</sup>, L. Hamon<sup>2</sup>, M. Sukhanova<sup>1</sup>, A. Bouhss<sup>2</sup>, O. Lavrik<sup>1</sup>, D. Pastré<sup>2</sup>

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SbPCD4 **Development of Tdp1 inhibitors based on natural biologically active compounds**

A.A. Chepanova<sup>1</sup>, A.L. Zakharenko<sup>1</sup>, O.D. Zakharova<sup>1</sup>, T.M. Khomenko<sup>2</sup>, E.V. Suslov<sup>2</sup>, N.S. Li-Zhulanov<sup>2</sup>, K.P. Volcho<sup>2</sup>, O.I. Lavrik<sup>1</sup>

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SbPCD5 **Activity of single nucleotide polymorphic variants of human AP-endonuclease 1**

A.T. Davletgildeeva<sup>1,2</sup>, I.V. Alekseeva<sup>1</sup>, O.S. Fedorova<sup>1,2</sup>, N.A. Kuznetsov<sup>1,2</sup>

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SbPCD6 **Modulatory effect of PAR on PARP1-YB-1 interactions**

K. Naumenko<sup>1,2</sup>, E. Alemasova<sup>2</sup>, O. Lavrik<sup>1,2</sup>

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SbPCD7 **Comparative analysis of lactaptin produced in bacterial and eukaryotic cells. Purification and activity**

O. Chinak<sup>1</sup>, O. Volkova<sup>2</sup>, T. Belovezhec<sup>2</sup>, A. Gorchakov<sup>2</sup>, A. Tkachenko<sup>1</sup>, E. Kuligina<sup>1</sup>, V. Richter<sup>1</sup>, O. Koval<sup>1,3</sup>

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SbPCD8 **Tyrosyl-DNA phosphodiesterase 1 (Tdp1) and its natural mutant SCAN1 inhibitors as prototypes of drugs**

E. Mamontova<sup>1,2</sup>, K. Kovaleva<sup>2,3</sup>, A. Zakharenko<sup>1</sup>, O. Yarovaya<sup>3</sup>, J. Reynisson<sup>4</sup>, O. Zakharova<sup>1</sup>, E. Ilina<sup>1</sup>, O. Lavrik<sup>1,2</sup>

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SbPCD9 **The influence of pH on damaged DNA processing by human apurinic/aprimidinic endonuclease 1**

I. V. Alekseeva<sup>1\*</sup>, A. Bakman<sup>2</sup>, Yu. N. Vorobjev<sup>1</sup>, O. S. Fedorova<sup>1,2</sup>, N. A. Kuznetsov<sup>1,2</sup>

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**SECTION**

«Genomics, transcriptomics and bioinformatics»

21 August

GTB1 **Analysis of Repetitive DNA Sequences in Genomes of *Porodaedalea niemelaei*, *P. chrysoloma* and *Armillaria borealis***

A. Aksyonova<sup>1</sup>, Y. Putintseva<sup>1</sup>, N. Oreshkova<sup>1,2</sup>, I. Pavlov<sup>1,2</sup>, Y. Litovka<sup>3</sup>, K. Krutovsky<sup>1,6,7,8</sup>

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GTB2 **Genome *De Novo* Sequencing, Assembly and Functional Annotation of Pathogenic Fungi *Armillaria borealis***

V. Akulova<sup>1\*</sup>, V. Sharov<sup>1</sup>, Yu. Putintseva<sup>1</sup>, N. Oreshkova<sup>1,2</sup>, S. Feranchuk<sup>1,3,4</sup>, D. Kuzmin<sup>1</sup>, I. Pavlov<sup>1,2</sup>, K. Krutovsky<sup>1,5,6,7</sup>

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GTB3 **Identification of Targets Genes for miRNAs of the Pathogenic Fungus *Fusarium oxysporum* in a *De Novo* Transcriptome Assembly of the Siberian Larch (*Larix sibirica* Ledeb.)**

V. Biriukov<sup>1\*</sup>, N. Oreshkova<sup>1,2</sup>, Yu. Putintseva<sup>1</sup>, K. Krutovsky<sup>1,3,4,5</sup>

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GTB4 **Genome rearrangements in bacterial genomes**

O. O. Bochkareva<sup>1\*</sup>, M.S. Gelfand<sup>1,2,3,4</sup>

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GTB5 **Minor variation in the 3' downstream region of *eGFP* reporter gene substantially increases level of its expression in mouse and human cells**

Lidiya V. Boldyreva<sup>1\*</sup>, Lyubov A. Yarinich<sup>1,2</sup>, Elena N. Kozhevnikova<sup>1</sup>, Alexey V. Pindyurin<sup>1,2</sup>

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GTB6 **Study of Bioresources of Salt Lakes of Novosibirsk Region**

A. Bryanskaya<sup>1\*</sup>, Yu. Uvarova<sup>1</sup>, A. Rozanov<sup>1</sup>, E. Lazareva<sup>2</sup>, O. Taran<sup>3</sup>, T. Ivanisenko<sup>1</sup>, S. Peltek<sup>1</sup>

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GTB7 **Functional analysis of SNVs affecting splicing in congenital aniridia**

A. Filatova<sup>1</sup>, T. Vasilyeva<sup>1</sup>, M. Skoblov<sup>1,2</sup>, A. Voskresenskaya<sup>3</sup>, A. Marakhonov<sup>1,2</sup>, R. Zinchenko<sup>1,4</sup>

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- GTB8 **The analysis of extracellular matrix genes` functional activity in carotid artery plaque**  
I.A. Goncharova<sup>1\*</sup>, A.V. Markov<sup>1</sup>, A.A. Sleptsov<sup>1</sup>, Y.A. Koroleva<sup>1</sup>, D.V. Sharysh<sup>3</sup>, A.A. Zarubin<sup>3</sup>, N.R. Valiahmetov<sup>1</sup>, E.F. Muslimova<sup>2</sup>, D.S. Panfilov<sup>2</sup>, B.N. Kozlov<sup>2</sup>, S.A. Afanasiev<sup>2</sup>, V.P. Puzyrev<sup>1,3</sup>, M.S. Nasarenko<sup>1,3</sup>  
<sup>1</sup> Research Institute of Medical Genetics, Tomsk, Russia; <sup>2</sup> Research Institute of cardiology, Tomsk, Russia; <sup>3</sup> Siberian State Medical University, Tomsk, Russia
- GTB9 **GWAS-MAP: a platform for storage and analysis of the results of thousands of genome-wide association scans**  
D.D. Gorev<sup>1,2,3</sup>, T.I. Shashkova<sup>1,2,3</sup>, E. Pakhomov<sup>2</sup>, A. Torgasheva<sup>4</sup>, L. Klaric<sup>5,6</sup>, A. Severinov<sup>1,3</sup>, S. Sharapov<sup>2,4</sup>, D.G. Alexeev<sup>1,2</sup>, Y.S. Aulchenko<sup>2,3,4</sup>  
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- GTB10 **Mining of Non-Teleost Fish Transcriptomes and Genomes Uncovers the Evolutionary History of Immunoglobulin Light Chains**  
S. Guselnikov<sup>1,2\*</sup>, K. Baranov<sup>1</sup>, N. Chikaev<sup>1</sup>, A. Najakshin<sup>1</sup>, S. Kulemzin<sup>1</sup>, A. Makunin<sup>1</sup>, V. Trifonov<sup>1,2</sup>, A. Taranin<sup>1,2</sup>  
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- GTB11 **PyMPFA: python pipeline for massively parallel functional assays used for characterization of DNA regulatory elements**  
A. Ivankin<sup>1\*</sup>, A. Pindyurin<sup>1,2</sup>  
<sup>1</sup> Institute of Molecular and Cellular Biology SB RAS, Novosibirsk, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- GTB12 **Motif analysis of regulatory SNPs reveals Krueppel-like tran-scription factors as putative tumor suppressors in colorectal carcinoma**  
O. Kel-Margoulis<sup>1\*</sup>, A. Kel<sup>1,2</sup>, E. Wingender<sup>1,3</sup>  
<sup>1</sup> geneXplain GmbH, Wolfenbuettel, Germany; <sup>2</sup> Institute of Chemical Biology and Fundamental Medicine, SB RAS, Novosibirsk, Russia; <sup>3</sup> Institute of Chemical Biology and Fundamental Medicine, SB RAS, Novosibirsk, Russia
- GTB13 **Genomic organization of serratiochelin cluster in the environmental and clinical strains of *Serratia marcescens***  
I. Khilyas<sup>1\*</sup>, M. Sharipova<sup>1</sup>, L. Bogomolnaya<sup>1,2</sup>  
<sup>1</sup> Institute of Fundamental medicine and biology KFU, Kazan, Russia; <sup>2</sup> Texas A&M University Health Science Center, Bryan, TX, USA
- GTB14 **Osteogenic-Related Gene Expression by Human Adipose-Derived Mesenchymal Stem Cells**  
I. Khlusov<sup>1,2</sup>, L. Litvinova<sup>2\*</sup>, K. Yurova<sup>2</sup>, V. Shupletsova<sup>2</sup>, O. Khaziakhmatova<sup>2</sup>, E. Melashchenko<sup>2</sup>, L. Pokrovskaya<sup>1</sup>  
<sup>1</sup> Tomsk State University, Tomsk, Russia; <sup>2</sup> Immanuel Kant Baltic Federal University, Kaliningrad, Russia
- GTB15 **Siamese Neural Networks for Metagenomics Binning**  
B. Kirillov<sup>1\*</sup>  
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- GTB16 **Evolution of Mitochondrial Genomes in Three Closely-Related Armillaria Species**  
A. Kolesnikova<sup>1</sup>, Y. Putintseva<sup>1</sup>, S. Jain<sup>1</sup>, N. Oreshkova<sup>1,2</sup>, I. Pavlov<sup>1,2</sup>, V. Sharov<sup>1</sup>, D. Kuzmin<sup>1</sup>, S. Makolov<sup>1</sup>, K. Krutovsky<sup>1,3,4,5\*</sup>  
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- GTB17 **Molecular evolution analysis of the antioxidant system and heme metabolism in helminths**  
D. Konstantinov<sup>1,2\*</sup>, M. Lvova<sup>2</sup>, A. Doroshkov<sup>2</sup>  
<sup>1</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- GTB18 **The overlapped motifs co-occurrence in ChIP-seq data**  
V.G. Levitsky<sup>1,2\*</sup>, D.Yu. Oshchepkov<sup>1</sup>, E.V. Zemlyanskaya<sup>1,2</sup>, V.V. Mironova<sup>1,2</sup>, E.V. Ignatieva<sup>1,2</sup>, O.A. Podkolodnaya<sup>1</sup>, T.I. Merkulova<sup>1,2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- GTB19 **Mutation load in carotid paragangliomas**  
E. Lukyanova<sup>1</sup>, A. Snezhkina<sup>1\*</sup>, D. Kalinin<sup>2</sup>, M. Fedorova<sup>1</sup>, E. Pudova<sup>1</sup>, Z. Guvatova<sup>1</sup>, S. Kharitonov<sup>1</sup>, N. Melnikova<sup>1</sup>, G. Krasnov<sup>1</sup>, A. Dmitriev<sup>1</sup>, A. Kudryavtseva<sup>1,3</sup>  
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- GTB20 **Multiple Omics Ageing Clocks**  
Erin Macdonald-Dunlop<sup>1\*</sup>, Peter K Joshi<sup>1</sup>, James F Wilson<sup>1,2</sup>  
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- GTB21 **Expression of *Fusarium oxysporum* Genes Upon Infection of *Linum usitatissimum* Plants**  
R. Novakovskiy<sup>1\*</sup>, G. Krasnov<sup>1</sup>, T. Rozhmina<sup>1,2</sup>, P. Kezimana<sup>1,3</sup>, N. Melnikova<sup>1</sup>, A. Dmitriev<sup>1</sup>  
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- GTB22 **Two-step emulsion PCR to prevent formation of the chimeric molecules**  
E. Omelina<sup>1\*</sup>, A. Ivankin<sup>1</sup>, A. Leshchenko<sup>1,2</sup>, L. Yarinich<sup>1</sup>, M. Lebedev<sup>1,2</sup>, A. Pindyurin<sup>1</sup>  
*<sup>1</sup> Institute of Molecular and Cellular Biology SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia*
- GTB23 **Tandem repeats in mammalian genomes**  
D. Ostromyshenskii<sup>1\*</sup>, O. Podgornaya<sup>1, 2</sup>  
*<sup>1</sup> Institute of Cytology RAS, Saint Petersburg, Russia; <sup>2</sup> Saint Petersburg State University, Saint Petersburg, Russia*
- GTB24 **Electrostatic up-element and promoter strength**  
A. Osypov<sup>1 2\*</sup>, G. Krutinin<sup>3</sup>, E. Krutinina<sup>3</sup>, P. Beskaravayny<sup>3</sup>, S. Kamzolova<sup>3</sup>  
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- GTB25 **Selecting codons not for proteins: Codons and amino acids biases around proteins binding DNA sites are due to their electrostatics**  
A. Osypov<sup>1 2\*</sup>, G. Krutinin<sup>3</sup>, E. Krutinina<sup>3</sup>, P. Beskaravayny<sup>3</sup>, S. Kamzolova<sup>3</sup>  
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- GTB26 **Transcriptomic comparative analysis of hippocampal tissue and primary cultures after hyaluronidase treatment**  
V. Pershin<sup>1,2\*</sup>, A. Balashova<sup>2</sup>, E. Guryev<sup>1,2</sup>, L. Kurbatov<sup>3</sup>, M. Gainullin<sup>1,4</sup>, I. Mukhina<sup>1,2</sup>  
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- GTB27 **Identification of 3 unknown bacterial strains, characterization of Copper Oxidase Genes**  
M. Plotnikova<sup>1</sup>  
*<sup>1</sup> Voronezh State University, Department of Genetics, Cytology and Bioengineering, Voronezh, Russia*
- GTB28 **Potential biomarkers associated with poor prognosis for local-ly advanced prostate cancer without lymphatic dissemination**  
E. Pudova<sup>\*1</sup>, E. Lukyanova<sup>1</sup>, K. Nyushko<sup>2</sup>, S. Kharitonov<sup>1</sup>, A. Snezhkina<sup>1</sup>, M. Fedorova<sup>1</sup>, A. Kaprin<sup>2</sup>, B. Alekseev<sup>2</sup>, A. Kudryavtseva<sup>1,2</sup>  
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- GTB29 **Graph-oriented database for analysis of prokaryotic communities -omics data**  
A. Ryasik<sup>\*1</sup>, T. Ermak<sup>1,2</sup>, M. Orlov<sup>1</sup>, E. Zykova<sup>1</sup>, A. Sorokin<sup>1</sup>  
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- GTB30 **Genomic reconstruction of histidine metabolism and regulation in human microbiome**  
N.V. Sernova, I.A. Zharov, G.A. Ashniev, S.A. Leyn, D.A. Rodionov \*  
*Institute for Information Transmission Problems RAS*
- GTB31 **Identification of an ABC-type multidrug efflux pump MacAB genes in the genome of *Serratia marcescens* SM6.**  
T.V. Shirshikova<sup>1\*</sup>, D.S. Pudova<sup>1</sup>, D. A. Kabanov<sup>1</sup>, A. O. Tikhonova<sup>1</sup>, M.R. Sharipova<sup>1</sup>, L.M. Bogomolnaya<sup>1, 2</sup>  
*<sup>1</sup> Kazan (Volga region) Federal University, Kazan, Russia; <sup>2</sup> Texas A&M University Health Science Center, Microbial Pathogenesis and Immunology, Bryan, USA*
- GTB32 **Metastatic prostate cancer cells in lymph nodes perturb nodal laminin expression**  
M. Shkurnikov<sup>1\*</sup>, D. Maltseva<sup>1</sup>  
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- GTB33 **Artificial Intelligence in the Problems of Analysis and Interpretation of Omics Human Data**  
A. Shlikht<sup>1\*</sup>, N. Kramorenko<sup>1</sup>  
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A. Snezhkina<sup>1\*</sup>, E. Lukyanova<sup>1</sup>, D. Kalinin<sup>2</sup>, E. Pudova<sup>1</sup>, M. Fedorova<sup>1</sup>, S. Kharitonov<sup>1</sup>, Z. Guvatova<sup>1</sup>, I. Abramov<sup>1</sup>, G. Krasnov<sup>1</sup>, N. Melnikova<sup>1</sup>, A. Dmitriev<sup>1</sup>, A. Kudryavtseva<sup>1,3</sup>  
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A.Sokol<sup>1\*</sup>, K. Ushakova<sup>1</sup>, A. A. Mikhaylova<sup>1</sup>, A. G. Mikhaylova<sup>1</sup>, D. Knorre<sup>3</sup>, I. Mazunin<sup>1</sup>, A. Reymond<sup>5</sup>, K. Gunbin<sup>1,4</sup>, K. Popadin<sup>1,5</sup>  
<sup>1</sup>The School of Life Sciences, Immanuel Kant Baltic Federal University, Kaliningrad, Russian Federation; <sup>2</sup>Institute of Biodiversity Animal Health and Comparative Medicine, University of Glasgow, Glasgow, UK; <sup>3</sup>The A.N. Belozersky Institute Of Physico-Chemical Biology, MSU, Moscow, Russian Federation; <sup>4</sup>The Institute of Cytology and Genetics of the SB RAS, Novosibirsk, Russian Federation; <sup>5</sup>Center for Integrative Genomics, University of Lausanne, Lausanne, Switzerland
- GTB36 **BRCA mutation and castration-resistant prostate cancer, association with the AKT / m-TOR signaling cascade**  
L.V.Spirina<sup>1,2\*</sup>, A.K. Gorbunov<sup>1</sup>, E.A. Usynin<sup>1</sup>, E.M. Slonimskaya<sup>1,2</sup>, I.V. Kondakova<sup>1</sup>  
<sup>1</sup> Cancer Research Institute, TNIMC, Tomsk; <sup>2</sup> Siberian State Medical University, Tomsk
- GTB37 **The interplay of Piwi and heterochromatin proteins in transposable element silencing in the germline of Drosophila melanogaster**  
A. Stolyarenko<sup>1\*</sup>, T. Leinsoo<sup>1</sup>, Y. Abramov<sup>1</sup>, P. Mazin<sup>2</sup>, M. Klenov<sup>1</sup>  
<sup>1</sup> Institute of Molecular Genetics RAS, Moscow, Russia; <sup>2</sup> Center for Data-Intensive Biomedicine and Biotechnology, Skolkovo Institute of Science and Technology, Moscow, Russia
- GTB38 **Comparative Transcriptomics of the Moss Physcomitrella patens under biotic stress**  
N. Sukhikh<sup>1</sup>, E. Egorova<sup>1</sup>, A. Predeus<sup>2</sup>, S. Vinogradova<sup>1\*</sup>  
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<sup>2</sup> Bioinformatics institute, Saint Petersburg, Russia
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A.Tskhai<sup>1,2\*</sup>, S.Murzintsev<sup>3</sup>  
<sup>1</sup> Institute for Water and Environmental Sciences SB RAS, Barnaul, Russia; <sup>2</sup> Altai State Technical University named Polzunov I. I., Barnaul, Russia; <sup>3</sup> Altai State University, Barnaul, Russia
- GTB40 **MiRNA seed shifting: origin and functional implications**  
P. Vorozheykin<sup>1\*</sup>, N. Yazikov<sup>1</sup>, I. Titov<sup>1,2</sup>  
<sup>1</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- GTB41 **Improvement of a Test-system for Detecting Inherited and Non-inherited Genetic Changes in Living Cells**  
A. Zhuk<sup>1, 2\*</sup>, E. Stepchenkova<sup>1, 2</sup>, S. Inge-Vechtomov<sup>1, 2</sup>  
<sup>1</sup> Saint-Petersburg State University, Saint-Petersburg, Russia; <sup>2</sup> Saint-Petersburg Branch of Vavilov Institute of General Genetics, Saint-Petersburg, Russia
- GTB42 **DNA sequence features that may establish H3K27Ac mark**  
Anatoliy Zubritskiy<sup>1\*</sup>, Yulia A. Medvedeva<sup>1-3</sup>  
<sup>1</sup> Institute of Bioengineering, Research Centre of Biotechnology, Russian Academy of Sciences, Moscow, 119071, Russian Federation; <sup>2</sup> Department of System Biology and Bioinformatics, Vavilov institute of General Genetics, Russian Academy of Sciences, Moscow, 119991, Russian Federation; <sup>3</sup> Department of Biological and Medical Physics, Moscow Institute of Physics and Technology, Dolgoprudny, 141701, Russian Federation

## POSTER SESSIONS

Poster Session 1. *Genetics and Molecular Biology*

Tuesday, 21 August

- Med.1.1. **Association rs189037 in the ATM Gene with Bronchial Asthma Taking into Account Environmental Factors.** N. Babushkina\*, A. Postrigan, A. Kucher. *Research Institute of Medical Genetics, Tomsk National Research Medical Center RAS, Tomsk, Russia*
- Med.1.2. **Model Melanocortin Obesity: Immunohistochemical Examination of Cyclooxygenase-2 and Macrophages in the Kidney of Ay Mice.** N.V. Baginskaya\*, N.S. Logvinenko. *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.1.3. **IL4 (rs 2243250) Gene Polymorphism Depending on the Clinical Features Psoriatic Disease.** A. Barilo\*, S. Smirnova, M. Smolnikova. *Scientific Research Institute of Medical Problems of the North, Federal Research Center «Krasnoyarsk Science Center» of the Siberian Branch of the Russian Academy of Sciences, Krasnoyarsk, Russia*
- Med.1.4. **A Search for Molecular Relationships Between Bronchial Asthma and Hypertension as an Example of Comorbid Diseases.** E.Yu. Bragina<sup>1</sup>, M.B. Freidin<sup>1</sup>, I.A. Goncharova<sup>1</sup>, O.V.Saik<sup>2</sup>, O.I. Zolotareva<sup>3</sup>, V.A. Ivanisenko<sup>2</sup>, V.E. Dosenko<sup>4</sup>, R. Hofstaedt<sup>3</sup>. <sup>1</sup>*Research Institute of Medical Genetics, Tomsk NRMC, Tomsk, Russia;* <sup>2</sup>*The Federal Research Center Institute of Cytology and Genetics, The Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia;* <sup>3</sup>*Bielefeld University, Bielefeld, Germany;* <sup>4</sup>*Bogomoletz Institute of Physiology, National Academy of Science, Kiev, Ukraine*
- Med.1.5. **Genome Rearrangements in Bacterial Genomes.** O.O. Bochkareva, M.S. Gelfand<sup>4</sup>. <sup>1</sup>*Institute of Information Transmission Problem RAS, Moscow, Russia;* <sup>2</sup>*Lomonosov State University, Moscow, Russia;* <sup>3</sup>*Higher School of Economics, Moscow, Russia;* <sup>4</sup>*Skolkovo Institute of Science and Technology, Moscow, Russia*
- Med.1.6. **Computer Method for Image Enhancement in Fish Diagnostics.** A.G. Bogomolov<sup>1,2\*</sup>, T.V. Karamysheva<sup>2</sup>, N.B. Rubtsov<sup>1,2</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.1.7. **Fluctuating asymmetry of gene expression in embryos derived by in vitro fertilization.** N.A. Feofanova<sup>1\*</sup>, G.V. Kontsevaya<sup>2</sup>, M.V. Anisimova<sup>2</sup>, Y.L. Gon<sup>3</sup>, Y.M. Moshkin<sup>2</sup>. <sup>1</sup>*Institute of Clinical Immunology SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.1.8. **Alternative Splicing in Transcriptomes of Glioma Cell Cultures.** N.V. Gubanova<sup>1\*</sup>, V.N. Babenko S.S. Kovalev A.V. Tsukanov A.O. Bragin Y.L. Orlov<sup>2</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State Medical University, Novosibirsk, Russia*
- Med.1.9. **Molecular-Genetic Phenotype of Experimental Breast Cancer.** A.V. Kabakov\*, A.P. Lykov, D.V. Morozov, O.V. Kazakov, A.F. Poveshchenko, T.V. Rayter, D.N. Strunkin, V.I. Kononov. *Research Institute of Clinical and Experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.1.10. **The Relationship of the Genes Expression of Actin-Binding Proteins with Metastasis in Squamous Cell Carcinoma of the Head and Neck and Non-Small Cell Lung Cancer.** G. Kakurina<sup>1\*</sup>, E. Kolegova, I. Kondakova<sup>1</sup>, A. Dobrodeev, D. Kostromitsky, O. Cheremisina<sup>1</sup>, E.L. Choyzonov<sup>1,2</sup>. <sup>1</sup>*Tomsk National Research Medical Center of the Russian Academy of Sciences, Tomsk, Russia;* <sup>2</sup>*Siberian State Medical University, Tomsk, Russia*
- Med.1.11. **Search for a Signals of Genetic Adaptation to High-Mountain Living in Populations of Dagestan.** V. Kharkov<sup>1\*</sup>, A. Zarubin<sup>1</sup>, K. Vagaitseva<sup>1</sup>, M. Radzhabov<sup>2</sup>, V. Stepanov<sup>1</sup>. <sup>1</sup>*Tomsk National Research Medical Center of the Russian Academy of Sciences, Research Institute of Medical Genetics, Tomsk, Russia;* <sup>2</sup>*Daghestan Institute of Physics after Amir Khanov, Makhachkala, Russia*
- Med.1.12. **Generation of 293FT Cell Lines Deficient in Base Excision Repair and Mismatch Repair by CRISPR/Cas9-Mediated Genome Editing.** D. Kim<sup>1,2\*</sup>, L. Kulishova<sup>1</sup>, N. Torgasheva<sup>1</sup>, D. Zharkov<sup>1,2</sup>. <sup>1</sup>*Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.1.13. **Adaptive Strategies of Motile Bacteria in Dynamic Aquatic Ecosystems. A Simulation Study.** A.I. Klimenko\*, Yu.G. Matushkin, S.A. Lashin. *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*
- Med.1.14. **Maturity-Onset Diabetes of the Young Due to HNF1B Mutation: a Case Report.** V.V. Klimontov<sup>1\*</sup>, D.M. Bulumbaeva<sup>1</sup>, E.A. Koroleva<sup>1</sup>, A.K. Ovsyannikova<sup>2</sup>, O.D. Rymar<sup>2</sup>, D.E. Ivanoshchuk<sup>2</sup>, E.V. Shakhtshneider<sup>2</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Research Institute of Therapy and Preventive Medicine – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.1.15. **Comparative Analysis of Protein-Coding Potential of mRNAs and lncRNAs Based on Sequence Features.** Yu. Kondrakhin<sup>1,2</sup>, R. Sharipov<sup>2,3</sup>, O. Volkova<sup>4\*</sup>. <sup>1</sup>*Institute of Computational Technologies SB RAS, Novosibirsk, Russia;* <sup>2</sup>*BIOSOFT.RU, Ltd, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia;* <sup>4</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

- Med.1.16. **An Integrative Framework for Effective Identification of Functional Disease-Associated Variants in Genome-Wide Studies.** E. Korbolina<sup>1,2\*</sup>, L. Bryzgalov<sup>1</sup>, A. Degtyareva<sup>1</sup>, M. Verstunina<sup>3</sup>, T. Merkulova<sup>1,2</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State Medical University, Novosibirsk, Russia*
- Med.1.17. **Computer Analysis of Transcriptomes in Glioma Cells.** S.S. Kovalev, N.V. Gubanova, A.V. Tsukanov, A.O. Bragin, Y.L. Orlov<sup>3</sup>. <sup>1</sup>*Novosibirsk State Medical University, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.1.18. **ADRB1 Gene Polymorphism and Pro-arrhythmic Electrocardiographic Patterns in the General Population of Novosibirsk.** A.A. Kuznetsov\*, A.A. Kuznetsova, T.I. Batluk, V.N. Maksimov, M.I. Voevoda, S.K. Malyutina, Yu.P. Nikitin. *Research Institute of Internal and Preventive Medicine – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.1.19. **Use of Next-Generation Sequencing (NGS) to Clarify the Cause of a Premature Newborn Death: Clinical Case.** A. Mikhalenka<sup>1\*</sup>, M. Artsiusheuskaya<sup>2</sup>, O. Malyshava<sup>1</sup>, A.Shchayuk<sup>1</sup>, S.Kachan<sup>3</sup>, G. Kulakova<sup>2</sup>, A. Kilchevsky<sup>1</sup>. <sup>1</sup>*Institute of Genetics and Cytology of NASB, Minsk, Belarus;* <sup>2</sup>*Belarusian Medical Academy of Post-Graduate Education, Minsk, Belarus;* <sup>3</sup>*Clinical maternity hospital of Minsk region, Minsk, Belarus*
- Med.1.20. **Novel Lentiviral Vectors for Studies of Glioblastoma.** O. Mozhei<sup>1\*</sup>, A.G. Teschemacher<sup>2</sup>, S. Kasparov<sup>2</sup>. <sup>1</sup>*Immanuel Kant Baltic Federal University, Kaliningrad, Russia;* <sup>2</sup>*Bristol University, Bristol, UK*
- Med.1.21. **Application of New Bioinformatics Approach for Prediction of Metabolic Capabilities for Carbohydrate Fermentation in Human Gut Microbiome.** A.A. Murtazin\*, A.A. Arzamasov, S.N. Yablokov, D.A. Rodionov. *Institute for Information Transmission Problems RAS*
- Med.1.22. **Application of Plant ROS1 5-Methylcytosine-DNA Glycosylase as Tool for Directed Epigenetic Demethylation in Human Cells.** D. Petrova<sup>1\*</sup>, I. Grin<sup>1,2</sup>, D. Zharkov<sup>1,2</sup>. <sup>1</sup>*Institute of Chemical biology and fundamental medicine SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.1.23. **Genetic Adaptation of Human Populations to Climatic Conditions of Northern Eurasia.** A. Popovich\*, V. Stepanov, K. Vagaitseva, A. Bocharova. *Research Institute of Medical Genetics, Tomsk National Research Medical Center of RAS, Tomsk, Russia*
- Med.1.24. **Polymorphic Variants of Signaling Pathway Akt1/GSK-3 $\beta$  Gene and Tardive Dyskinesia in Schizophrenic Patients.** Ivan V. Pozhidaev<sup>1</sup>, Anastasia Levchenko<sup>3</sup>, Diana Z. Osmanova<sup>1</sup>, Innokentiy S. Losenkov<sup>1</sup>, Olga Yu. Fedorenko<sup>1</sup>, Natalya M. Vyalova<sup>1</sup>, Arkady V. Semke<sup>1</sup>, Bob Wilffert<sup>2</sup>, Anton J.M. Loonen<sup>2</sup>, Svetlana A. Ivanova<sup>1</sup>. <sup>1</sup>*Mental Health Research Institute, Tomsk National Research Medical Center of RAS, Tomsk, Russia;* <sup>2</sup>*Groningen Research Institute of Pharmacy, University of Groningen, Groningen, The Netherlands;* <sup>3</sup>*Institute of Translational Biomedicine, Saint Petersburg State University, Saint Petersburg, Russia*
- Med.1.25. **Interactome Network Topology in Diabetic Retinopathy.** V. Prokof'ev<sup>1\*</sup>, A. Shevchenko<sup>1</sup>, V. Konenkov<sup>1</sup>, V. Klimontov<sup>1</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.1.26. **Study of mtDNA Copy Number and LINE-1 in Atherosclerosis.** R. Salakhov<sup>1\*</sup>, M. Golubenko<sup>1,2</sup>, A. Markov<sup>1</sup>, A. Sleptcov<sup>1</sup>, M. Nazarenko<sup>1,2</sup>, O. Barbarash<sup>2</sup>, V. Puzyrev<sup>1</sup>. <sup>1</sup>*Research Institute of Medical Genetics, Tomsk National Research Medical Center RAS, Tomsk, Russia;* <sup>2</sup>*Research Institute for Complex Issues of Cardiovascular Diseases, Kemerovo, Russia*
- Med.1.27. **Exome Analysis of Patients with Maturity onset Diabetes of the Young in Russia.** E. Shakhtshneider<sup>1,3\*</sup>, D.E. Ivanoshchuk<sup>1,2,3</sup>, A.K. Ovsyannikova<sup>1</sup>, O.D. Rymar<sup>1</sup>, M.I. Voevoda<sup>1,2,3</sup>. <sup>1</sup>*Research Institute of Internal and Preventive Medicine – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.1.28. **Association of Intracellular Proteolytic Systems and Locomotor Proteins in Tissues of Primary Tumor and Lymphogenous Metastases of Breast Cancer.** E. Shashova, N. Tarabanovskaya, E. Slonimskaya, I. Kondakova. *Tomsk National Research Medical Center of RAS, Tomsk, Russia*
- Med.1.29. **Orthopoxviral TNF-binding Protein.** S.N. Shchelkunov<sup>1,2\*</sup>, T.V. Tregubchak<sup>1</sup>, I.P. Gileva<sup>1</sup>. <sup>1</sup>*State Research Center of Virology and Biotechnology “Vector”, Koltsovo, Novosibirsk region, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

- Med.1.30. **Polymorphism of Genes of Endothelial Dysfunction, Mitochondrial Biogenesis Coactivators and Plasminogen-Plasmin System in Development of Cardiovascular Complications in Rheumatoid Arthritis.** A. Shevchenko<sup>1\*</sup>, V. Prokof'ev<sup>1</sup>, M. Korolev<sup>1</sup>, V. Omelchenko<sup>1</sup>, V. Kononkov<sup>1</sup>. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.1.31. **Identification of an ABC-Type Multidrug Efflux Pump MacAB Genes in the Genome of *Serratia Marcescens* SM6.** T.V. Shirshikova, D.S. Pudova, D. A. Kabanov, A. O. Tikhonova, M.R. Sharipova, L.M. Bogomolnaya<sup>2</sup>. <sup>1</sup>Kazan (Volga region) Federal University, Kazan, Russia; <sup>2</sup>Texas A&M University Health Science Center, Microbial Pathogenesis and Immunology, Bryan, USA
- Med.1.32. **Role of DNA Methylation in Incomplete Penetrance of Copy Number Variations.** N.A. Skryabin<sup>1\*</sup>, S.A. Vasilyev<sup>1</sup>, E.N. Tolmacheva<sup>1</sup>, R.R. Savchenko<sup>1</sup>, D.I. Zhigalina<sup>1</sup>, A.A. Kashevarova<sup>1</sup>, A.A. Zarubin<sup>1</sup>, E.O. Belyaeva<sup>1</sup>, L.P. Nazarenko<sup>1</sup>, I.N. Lebedev<sup>1</sup>. <sup>1</sup> *Research Institute of Medical Genetics TNRMС, Tomsk, Russia*
- Med.1.33. **Copy Number Calling from Infinium Methylation EPIC Array in Human Carotid Atherosclerotic Plaques.** A.A. Sleptsov<sup>1\*</sup>, M.S. Nazarenko<sup>1,2,3</sup>, A.V. Markov<sup>1</sup>, D.V. Sharysh<sup>3</sup>, A.N. Kazantsev<sup>2</sup>, O.L. Barbarash<sup>2</sup>, V.P. Puzyrev<sup>1,3</sup>. <sup>1</sup>*Research Institute of Medical Genetics, Tomsk National Research Medical Center, Russian Academy of Science, Tomsk, Russia*; <sup>2</sup>*Research Institute for Complex Issues of Cardiovascular Diseases, Kemerovo, Russia*; <sup>3</sup>*Siberian State Medical University, Tomsk, Russia*
- Med.1.34. **Circulating Adiponectin Concentrations are Sex-Dependently Associated with Specific SNPs of *ADIPOQ* and *LEP* Genes.** S. Smetnev, M. Klimushina\*, A. Meshkov, N. Gumanova, N. Gavrilova, A. Ershova, A. Kiseleva, V. Metelskaya. *National Medical Research Center for Preventive Medicine, Moscow, Russia*
- Med.1.35. **Carnitine Palmitoyltransferase1A (CPT1A) P479L Allele Prevalence in the Arctic Native Populations of East Siberia.** M. Smolnikova, S. Tereshchenko. *Scientific Research Institute of Medical Problems of the North, Federal Research Center «Krasnoyarsk Science Center» SB RAS, Krasnoyarsk, Russia*
- Med.1.36. **Genes of Cytokines in Controlled and Uncontrolled Asthma in Children (East Siberia).** M. Smolnikova\*, S. Smirnova, O. Konopleva. *Scientific Research Institute of Medical Problems of the North, Federal Research Center «Krasnoyarsk Science Center» SB RAS, Krasnoyarsk, Russia*
- Med.1.37. **Metabolic Syndrome Associated *FTO* Gene Polymorphism in Populations of Buryats and Russians of Eastern Siberia.** L.E. Tabikhanova<sup>1\*</sup>, L.P. Osipova<sup>1,3</sup>, E.N. Voronina<sup>2,3</sup>, M.L. Filipenko<sup>2,3</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>2</sup>*Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia*; <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.1.38. **Role of the Dominant Placental Protein Pregnancy Specific  $\beta$ -1-Glycoprotein in the Regulation of T-Cell Immune Memory.** Timganova V.P.<sup>1\*</sup>, Litvinova L.S.<sup>2</sup>, Yurova K.A.<sup>2</sup>, Khaziakhmatova O.G.<sup>2</sup>, Bochkova M.S.<sup>1</sup>, Khramtsov P.V.<sup>1</sup>, Rayev M.B.<sup>1</sup>, Zamorina S.A.<sup>1</sup>. <sup>1</sup>*Institute of Ecology and Genetics of Microorganisms UB RAS, Perm*; <sup>2</sup>*Immanuel Kant Baltic Federal University, Kaliningrad*
- Med.1.39. **The Interaction Effect of Angiogenesis and Endothelial Dysfunction-Related Gene Variants Increases the Susceptibility of Recurrent Pregnancy Loss.** E. Trifonova<sup>1,2\*</sup>, O. Ganzha<sup>2</sup>, V. Serebrova<sup>1</sup>, T. Gabdulina<sup>2</sup>, V. Stepanov<sup>1</sup>. <sup>1</sup>*Research Institute of Medical Genetics SB RAMS, Tomsk, Russia*; <sup>2</sup>*Siberian State Medical University, Tomsk, Russia*
- Med.1.40. **Variability in Gibbs Energy of tRNA Molecules in Mitochondrial Genomes of Chordates: Neutral Selection or Evolution Towards Optimization of Translation?** K. Ushakova<sup>1\*</sup>, A. A. Mikhaylova<sup>1</sup>, A. G. Mikhaylova<sup>1</sup>, D. Knorre<sup>3</sup>, I. Mazunin<sup>1</sup>, A. Reymond<sup>5</sup>, K. Gunbin<sup>1,4</sup>, K. Popadin<sup>1,5\*\*</sup>. <sup>1</sup>*The School of Life Sciences, Immanuel Kant Baltic Federal University, Kaliningrad, Russia*; <sup>2</sup>*Institute of Biodiversity Animal Health and Comparative Medicine, University of Glasgow, Glasgow, UK*; <sup>3</sup>*The A.N. Belozersky Institute Of Physico-Chemical Biology, MSU, Moscow, Russia*; <sup>4</sup>*The Institute of Cytology and Genetics of the SB RAS, Novosibirsk, Russia*; <sup>5</sup>*Center for Integrative Genomics, University of Lausanne, Lausanne, Switzerland*
- Med.1.41. **Weighted Interaction SNP Network for Samples of Individuals with High and Low Cognitive Abilities.** K. Vagaytseva<sup>1\*</sup>, A. Zarubin<sup>1</sup>, O. Makeeva<sup>1</sup>, V. Stepanov<sup>1</sup>. *Research Institute of Medical Genetics, Tomsk National Research Medical Center, Russia*
- Med.1.42. **Features of Spontaneous and Induced Mutagenesis in Somatic Cells Depends on DNA Repair Foci.** S.A. Vasilyev<sup>1\*</sup>, R.R. Savchenko<sup>1</sup>, A.A. Murashkina<sup>2</sup>, V.S. Fishman<sup>3</sup>, E.V. Sukhikh<sup>4</sup>, Lebedev I.N.<sup>1</sup>. <sup>1</sup>*Research Institute of Medical Genetics TNRMС, Tomsk, Russia*; <sup>2</sup>*Tomsk State University, Tomsk, Russia*; <sup>3</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>4</sup>*Tomsk Regional Oncology Center, Tomsk, Russia*
- Med.1.43. **Mechanisms of Inactivation of the *TP53* Gene in Diffuse Large B-Cell Lymphoma.** Voropaeva E.N.<sup>1,2\*</sup>, Pospelova T.I.<sup>2</sup>, Voevoda M.I.<sup>1</sup> Maksimov V.N.<sup>1</sup>, O.B.<sup>2</sup>. <sup>1</sup>*Research Institute of Therapy and Preventive Medicine – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>2</sup>*Novosibirsk State Medical University, Novosibirsk, Russia*

- Med.1.44. **Exome-Wide Search and Functional Annotation of Genes Associated with Severe Forms of Tick-Borne Encephalitis in Russians.** N. S.Yudin<sup>1,2\*</sup>, A.A. Yurchenko<sup>1</sup>, M.I. Voevoda<sup>1,2</sup>, E.V. Ignatieva<sup>1,2</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.1.45. **qGEPS: the Tool for Relative Quantification of Gene Expression in Paired Samples.** A. Zyablitsin<sup>1</sup>, N. Melnikova<sup>1</sup>, G. Krasnov<sup>1</sup>, A. Dmitriev<sup>1\*</sup>. <sup>1</sup>*Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia*
- Med.1.46. **A Synonymous Variant in GCK Gene as a Cause of Gestational Diabetes Mellitus.** N. Zubkova<sup>1\*</sup>, P. Rubtsov<sup>2</sup>, L. Ibragimova<sup>1</sup>, E. Vasiliev<sup>1</sup>, V. Petrov<sup>1</sup>, A. Tiulpakov<sup>1</sup>. <sup>1</sup>*Endocrinology Research Centre, Moscow, Russia;* <sup>2</sup>*Engelhardt Institute of Molecular Biology of Russian Academy of Sciences, Moscow, Russia*
- Med.1.47. **Clinical case: rare mutations in the CYP1B1 gene in a patient with primary congenital glaucoma** Fishman<sup>1</sup>, O. Fenkova<sup>2</sup>, M.Voevoda<sup>1,3,4</sup>, A.Fursova<sup>2</sup>, D. Ivanoshchuk<sup>1,2,4\*</sup>. <sup>1</sup>Federal Research Center Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup>Novosibirsk State Regional Clinical Hospital, Novosibirsk, Russia; <sup>3</sup>Research Institute of Internal and Preventive Medicine-Branch of Institute of Cytology and Genetics, Novosibirsk, Russia; <sup>4</sup>Novosibirsk State University, Novosibirsk, Russia

**Poster Session 2. Biomedicine, Pharmacology and Clinical Medicine**  
**Wednesday, 22 August**

- Med.2.1. **Design of Vaccine Constructs Capable of Inducing a Cross Protective Effect Against Different Strains of the Influenza Virus A.** S. Bazhan\*, D. Antonets, L. Karpenko, T. Ilyicheva, O. Kaplina, V. Marchenko, S. Oreshkova. *State Research Center of Virology and Biotechnology "Vector", Koltsovo, Novosibirsk region, Russia*
- Med.2.2. **Ultrastructural Organization of Hepatocytes in Distant Tumor Growth.** S. Bakhbaeva\*, N. Bgatova, Yu. Taskaeva, V. Makarova, Yu. Borodin. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.3. **Regenerative Technologies in the Treatment of Knee Osteoarthritis.** N. Banshchikova<sup>1\*</sup>, V. Omelchenko<sup>1</sup>, E. Letjagina<sup>1</sup>, A. Akimova<sup>1</sup>, O. Poveshchenko<sup>1</sup>, A. Lykov<sup>1</sup>, M. Surovtseva<sup>1</sup>, A. Evsyukov<sup>1</sup>, A. Yezhov<sup>1</sup>, A. Zobnin<sup>1</sup>, M. Korolev<sup>1</sup>. <sup>1</sup>*Institute of Clinical and Experimental Lymphology – branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.4. **Neuroprotective Effects of Lithium Carbonate in Conditions of Tumor Growth.** N.Bgatova<sup>1\*</sup>, Yi.Taskaeva<sup>1</sup>, V.Makarova<sup>1</sup>, O.Solovjeva<sup>2</sup>, N.Khotskin<sup>2</sup>, A.Docenko<sup>2</sup>, E.Zav'yalov<sup>2</sup>, S.Shatskaya<sup>3</sup>, V.Isupov<sup>3</sup>, Yu.Borodin<sup>1</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology - Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>3</sup>*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*
- Med.2.5. **Modified Sorbents for Pharmacology.** Yu.I. Borodin, L.N. Rachkovskaya\*, T.V. Popova, A.A. Kotlyarova, S.V. Michurina, A.V. Shurlygina, E.E. Rachkovsky, M.V. Robinson, P.G. Madonov, M.A. Korolev, A.Yu. Letyagin, V.I. Konenkov. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia*
- Med.2.6. **Serum Levels of Adipokines in Type 2 Diabetic Subjects: the Relationships with Adipose Tissue Distribution and Microvasculature.** D.M. Bulumbaeva<sup>1\*</sup>, N.P. Bgatova<sup>1</sup>, Yu.S. Taskaeva<sup>1</sup>, O.N. Fazullina<sup>1</sup>, N.B. Orlov<sup>1</sup>, V.I. Konenkov<sup>1</sup>, S.V. Savchenko<sup>2</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State Medical University, Novosibirsk, Russia*
- Med.2.7. **Characterization of Cell Division in Primary Hippocampal Cultures Derived from Kaiso Deficient Mice.** N. B. Illarionova<sup>1\*</sup>, E.Y. Bazhenova<sup>1</sup>, D.V. Fursenko<sup>1</sup>, N.V. Khotskin<sup>1</sup>, I.E. Sorokin<sup>1</sup>, A.V. Kulikov<sup>1</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.8. **Evaluation of circulating tumor cells with epithelial-mesenchymal transition properties in the blood of breast cancer patients with different effect of neoadjuvant chemotherapy.** E. Kaigorodova<sup>1, 2\*</sup>, V.Perelmutter<sup>1</sup>, N. Tarabanovskaya<sup>1</sup>, E. Simolina<sup>1</sup>, E. Choyzonov<sup>1,2</sup>. <sup>1</sup>*Cancer Research Institute, Tomsk National Research Medical Center, Tomsk, Russia;* <sup>2</sup>*Siberian State Medical University, Tomsk, Russia*
- Med.2.9. **Structure of Regional and Remote Lymph Nodes at Treatment of Chemically Induced Breast Cancer Using Double-Stranded DNA Human Panagen.** O. V. Kazakov<sup>1\*</sup>, A.V. Kabakov<sup>1</sup>, A.F. Poveshchenko<sup>1</sup>, T.V. Reiter<sup>1</sup>, D.N. Strunkin<sup>1</sup>, S.S. Bogachev<sup>2</sup>, A.P. Lykov<sup>1</sup>, V.I. Konenkov<sup>1</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

- Med.2.10. **Technologies of Blood Saving with the Use of Tranexamic Acid in Myomectomy.** D. Khabarov, M. Kochetkova, I. Siutkina, F. Rakitin, P. Bulychev. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.11. **New Indicator for Edema Evaluation.** R. Khapaev\*, V. Nimaev, O. Shumkov, M. Soluyanov, M. Smagin. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Russia*
- Med.2.12. **Switching to Insulin Glargine 300 U/MI from Other Basal Insulin Analogues Provides Less 24-Hour Glucose Variability in Hospitalized Patients with Type 1 Diabetes.** V.V. Klimontov<sup>1\*</sup>, E.A. Koroleva, O.N. Fazullina. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.13. **Empagliflozin and Linagliptin Demonstrate Antifibrogenic Activity in db/db Mice, a Model of Type 2 Diabetes.** A.I. Korbut<sup>1\*</sup>, V.V. Klimontov<sup>1</sup>, Yu.S. Taskaeva<sup>1</sup>, N.P. Bgatova<sup>1</sup>, A.D. Dozenco<sup>2</sup>, E.L. Zavjalov<sup>2</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.14. **Comparative Pharmacokinetic Analysis of a Novel Prolonged Release Dosage form of Lithium Citrate in Mice.** A. A. Kotlyarova<sup>1,2\*</sup>, A. Yu. Letyagin<sup>1</sup>, T.G. Tolstikova<sup>2</sup>, L. N. Rachkovskaya<sup>1</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*N.N. Vorozhtsov Institute of Organic Chemistry SB RAS, Novosibirsk, Russia*
- Med.2.15. **Pathogenesis of Cerebral Cortex Damage in Mice During Infection with Seasonal Influenza A Virus.** A.Kovner<sup>1\*</sup>, P.Kozhin<sup>1</sup>, O. Kurskaya<sup>1</sup>, A. Slepneva<sup>2</sup>. <sup>1</sup>*Research Institute of Experimental and Clinical Medicine – subdivision of FRC FTM, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.2.16. **Ultrasound Technologies for Quantitative Characterization of Insulin-Induced Lipohypertrophy in Subjects with Diabetes.** M.M. Lazarev\*, A.A. Makhotin, V.V. Klimontov, D.M. Bulumbaeva, E.A. Koroleva, A.Y. Letyagin. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.17. **Simulation of Circadian Temporal Organization of the Lymph Node System Using the Automated Expert Program SMLN.** A.Yu. Letyagin, A.V. Shurlygina\*, I.B. Belan, M.V. Robinson, V.A. Trufakin. *Research Institute of Clinical and Experimental Lymphology - Branch of the Institute of Cytology and Genetics, SB RAS Novosibirsk, Russia*
- Med.2.18. **Autologous Plasma Enriched with Platelet Lysate for Treatment in Patients with Age-Related Macular Degeneration.** A.P. Lykov<sup>1,2</sup>, O.V. Poveshchenko<sup>1,2</sup>, M.A. Surovtseva<sup>1,2</sup>, O.M. Stanishevskaya<sup>3</sup>, D.V. Chernykh<sup>3</sup>, N.S. Arben'eva<sup>3</sup>, V.I. Bratko<sup>3</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Research Institute of Circulation Pathology, Ministry of Health Care of Russian Federation, Novosibirsk, Russia;* <sup>3</sup>*S. Fyodorov Eye Microsurgery Federal State Institution, Novosibirsk, Russia*
- Med.2.19. **Bone Marrow Hematopoiesis and Peripheral Blood Parameters in Mice with Chronic Opisthorchiasis and Social Stress.** M. Lvova<sup>1\*</sup>, I. Orlovskaya<sup>2</sup>, L. Toporkova<sup>2</sup>, I. Sorokina<sup>3</sup>, D. Avgustinovich<sup>1</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Fundamental and Clinical Immunology, Novosibirsk, Russia;* <sup>3</sup>*N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia*
- Med.2.20. **Apoptosis in the liver of DB/DB Mice Female in Postnatal Ontogenesis.** S. V. Michurina<sup>1</sup>, I.Yu.Ishchenko<sup>1</sup>, M.A.Cherepanova<sup>1</sup>, S.A. Arkhipov<sup>1</sup>, E.L. Zavjalov<sup>2</sup> (D.V. Vasendin<sup>3</sup>). <sup>1</sup>*Institute of Clinical and Experimental Lymphology – a branch of The Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State Medical University, Russia*
- Med.2.21. **Linagliptin Effect on the Relation of Apoptosis Regulators Bcl-2 and Bad in DB/DB Mice Liver.** S. V. Michurina<sup>1\*</sup>, I. Yu. Ishchenko<sup>1</sup>, M. A. Cherepanova<sup>1</sup>, S. A. Arkhipov<sup>1</sup>, V. V. Klimontov<sup>1</sup>, E. L. Zavjalov<sup>2</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology - branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.22. **Glucose Variability in Type 1 Diabetic Patients with Different Stages of Chronic Kidney Disease.** N. E. Myakina<sup>1\*</sup>, A.K. Vigel<sup>2</sup>, I.Y. Lots<sup>3</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Regional Clinical Hospital, Barnaul, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.2.23. **Continuous Glucose Monitoring Data Analysis in Insulin-Treated Type 1 And Type 2 Diabetic Subjects with the Use of Original Software.** N.E. Myakina, I.Y. Lots, V.V. Klimontov<sup>2</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*

- Med.2.24. **Heterogeneity of Motility of Chondrocyte Population from Minipig's Knee-Joint.** S. V. Nikolaev<sup>1\*</sup>, U. S. Zubairova<sup>1</sup>, K. E. Orishchenko<sup>1</sup>, N. M. Astakhova<sup>2</sup>, A. A. Voropaeva<sup>2</sup>, E. I. Shchelkunova<sup>2</sup>, and I. A. Kirilova<sup>2</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>2</sup>*Ya. L. Tsvyanyan Novosibirsk Research Institute of Traumatology and Orthopedics, Novosibirsk, Russia*
- Med.2.25. **Detection of the Lymphatic Capillaries in the Optic Nerve Sheath.** S. Nogovitsina<sup>\*1</sup>, N. Bgatova<sup>1</sup>, Yu. Borodin<sup>1</sup>, V. Chernykh<sup>2</sup>, A. Trunov<sup>2</sup>, A. Eremina<sup>2</sup>, V. Kononov<sup>1</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology, Novosibirsk, Russia*; <sup>2</sup>*The academician S.N. Fyodorov Federal State Institution «Intersectoral Research and Technology Complex «Eye Microsurgery», Ministry of Healthcare of Russian Federation, Novosibirsk Branch, Novosibirsk, Russia*
- Med.2.26. **Regeneration of Rat Skeletal Muscle Induced by MSC-Populated Collagenous Scaffolds.** A. Novokreshchenova<sup>1\*</sup>, N. Butorina<sup>1</sup>, O. Payushina<sup>1</sup>, O. Sheveleva<sup>1</sup>, E. Domaratskaya<sup>1</sup>. *Koltzov Institute of Developmental Biology of RAS, Russia*
- Med.2.27. **MicroRNA in Lymph in Experimental Breast Cancer.** A.F. Poveshchenko<sup>\*</sup>, A.V. Kabakov, A.P. Lykov, O.V. Kazakov, T.V. Rayter, D.N. Strunkin, V. I. Kononov. *Research Institute of Clinical and Experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.28. **Effect of Cytokines on Functional Properties of Fibroblasts.** O.V. Poveshchenko<sup>\*</sup>, A.P. Lykov, M.A. Surovtseva, N.A. Bondarenko, I.I. Kim, V.I. Kononov. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.29. **Natural Bispecific Antibodies: Generation, Isolation, Biological Functions.** S. E. Sedykh<sup>1,2\*</sup>, V.V. Printz<sup>1, 2</sup>, V.N. Buneva<sup>1,2</sup>, G.A. Nevinsky<sup>1,2</sup>. <sup>1</sup>*Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia*; <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.2.30. **Radiofrequency Ablation of Varicose Veins in Obese Patients.** O. Shumkov<sup>1</sup>, M. Smagin<sup>1</sup>, V. Nimaev<sup>1\*</sup>, M. Soluyanov<sup>1</sup>, A. Sadovskii<sup>2</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>2</sup>*Multidisciplinary clinic «Medsanchast-168», Novosibirsk, Russia*
- Med.2.31. **PRP in Treatment of Non-Healing Ulcers.** M. Smagin<sup>\*</sup>, A. Demura, O. Shumkov, T. Isaeva<sup>1,2</sup>, M. Soluyanov, O. Poveshchenko, V.V. Nimaev. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.2.32. **Platelet-Rich Plasma Coated PCL Nanofibers Boost Viability and Proliferation of Human Mesenchymal Stem Cells.** A. O. Solovieva<sup>1\*</sup>, S.M. Miroschnichenko<sup>1,2</sup>, T.N. Pozmogova<sup>1</sup>, A.M. Manakhov<sup>3</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>2</sup>*FRC of FTM - Institute of Biochemistry, Novosibirsk, Russia*; <sup>3</sup>*National University of Science and Technology «MISIS», Moscow, Russia*
- Med.2.33. **Personalization Treatment of the Bladder Leukoplakia.** M. Yu. Soluyanov<sup>\*</sup>, M.A. Smagin, O.A. Shumkov, V.V. Nimaev. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.34. **Effectiveness of Cytocine Antihypoxic Cerebroprotectin.** E. Suprun<sup>\*</sup>, S. Tereshchenko, S. Tronko, E. Kachalova. *National Pharmaceutical University, Clinical Pharmacology, Kharkov, Ukraine*
- Med.2.35. **Oxidative Stress Protection of the Bone Marrow-Derived Mesenchymal Stem Cells by Erythropoietin.** M.A. Surovtseva<sup>\*</sup>, I.I. Kim, A.P. Lykov, N.A. Bondarenko, O.V. Poveshchenko. *Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.36. **A Search for Potential Anthelmintic Drugs Using the Model of *Opisthorchis felineus*-Induced Opisthorchiasis.** Tsyganov<sup>1\*</sup>, G. Vishnivetskaya<sup>1</sup>, A. Kovner<sup>1</sup>, I. Sorokina<sup>2</sup>, A. Dushkin<sup>3</sup>, V. Mordvinov<sup>1</sup>, D. Avgustinovich<sup>1</sup>. <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>2</sup>*N.N. Vorozhtsov Institute of Organic Chemistry, SB RAS, Novosibirsk, Russia*; <sup>3</sup>*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*
- Med.2.37. **Analysis of Clinical Forms of Leg Lymphedema. Single-Center Experience.** D. Usmonov<sup>3</sup>, O. Saik<sup>2, 3</sup>, V. Nimaev<sup>1,3\*</sup>. <sup>1</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.2.38. **Synthesis of caged NO and epinephrine compounds for optically controlled platelets activation.** A. Yu. Vorob'ev<sup>1,2</sup>, O. Yu. Karmatskih<sup>1</sup>, D. V. Spiriyova<sup>1</sup>, A.E. Moskalensky<sup>1,3</sup>. <sup>1</sup>*Novosibirsk State University, Novosibirsk, Russia*; <sup>2</sup>*N.N. Vorozhtsov Institute of Organic Chemistry, Novosibirsk, Russia*; <sup>3</sup>*Voevodsky Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia*
- Med.2.39. **Bone Mineral Density Changes in Patients with Hodgkin's Lymphoma.** M. Voytko<sup>1\*</sup>, T. Pospelova<sup>1</sup>, V. Klimontov<sup>2</sup>, O. Fazullina<sup>2</sup>. <sup>1</sup>*Novosibirsk State Medical University, Novosibirsk, Russia*; <sup>2</sup>*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Med.2.40. **Hypovitaminosis D as a Biomarker of Cardiovascular Risk in Patients with Rheumatoid Arthritis.** A. Zazdravnov. *Kharkiv National Medical University, Kharkiv, Ukraine*



- Med.2.41. **Morphology and Proteomic Analysis of Human Placental Exosomes.** E. Burkova<sup>1\*</sup>, G. Nevinsky<sup>1,2</sup>. <sup>1</sup>*Institute of Chemical biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Med.2.42. **Hepatoprotective effect of various antioxidants in the pathogenesis of opisthorchiasis**  
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<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
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<sup>1</sup>*Division of Biotechnology, School of Bioresources and Technology, King Mongkut's University of Technology Thonburi (Bang Khun Thian), Bangkok, Thailand;* <sup>2</sup>*Systems Biology and Bioinformatics Research Group, Pilot Plant Development and Training Institute, King Mongkut's University of Technology Thonburi (Bang Khun Thian), Bangkok, Thailand;* <sup>3</sup>*Bioinformatics and Systems Biology Program, School of Bioresources and Technology, King Mongkut's University of Technology Thonburi (Bang Khun Thian), Bangkok, Thailand*
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*Novosibirsk State University, Novosibirsk, Russia*
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<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
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<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia;* <sup>3</sup>*Heilongjiang University, Harbin, China;* <sup>4</sup>*Novosibirsk State Agrarian University, Novosibirsk, Russia*
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<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
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<sup>1</sup>*FSBSI Russian Research Institute of Floriculture and Subtropical Crops, Sochi, Russia;* <sup>2</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>3</sup>*Julius Kühn-Institut (JKI), Federal Research Institute for Cultivated Plants Institute for Breeding Research on Fruit Crops, Dresden, Germany*
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<sup>1</sup>*Bioinformatics and Systems Biology Program, School of Bioresources and Technology, King Mongkut's University of Technology Thonburi, Bang Khun Thian, Bangkok, Thailand;* <sup>2</sup>*Systems Biology and Bioinformatics Research Laboratory, Pilot Plant Development and Training Institute, King Mongkut's University of Technology Thonburi, Bang Khun Thian, Bangkok, Thailand;* <sup>3</sup>*Bioinformatics and Systems Biology Program, School of Bioresources and Technology, and School of Information Technology, King Mongkut's University of Technology Thonburi, Bang Khun Thian, Bangkok, Thailand*

- Plant10 **Database on Molecular Identification of Genes for Resistance in Wheat (MIGREW)**  
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<sup>1</sup> *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia*
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<sup>1</sup> *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia*
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<sup>1</sup> *Omsk State Technical University, Omsk, Russia;* <sup>2</sup> *L.N.Gumilyov Eurasian National University, Astana, Kazakhstan*
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<sup>1</sup> *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup> *Institute of Evolution, University of Haifa, Haifa, Israel*
- Plant14 **Wheat Ear Recognizing Algorithm For High Throughput Wheat Phenotyping**  
E.Komyshev<sup>1\*</sup>, M.Genaev<sup>1</sup>, S.Tumanyan<sup>1</sup>, N.Goncharov<sup>1,3</sup>, D.Afonnikov<sup>1,2</sup>, V.Koval<sup>1</sup>  
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- Plant15 **MetaRE: search for cis-regulatory elements via meta-analysis of transcriptomic data**  
Novikova D.D.<sup>1,2,3</sup>, Cherenkov P.A.<sup>1</sup>, Tkachev K.U.<sup>2</sup>, Levitsky V.G.<sup>1,2</sup>, Mironova V.V.<sup>1,2</sup>  
*Novosibirsk State University, 2 Pirogova Street, Novosibirsk, 630090, Russian Federation ;Institute of Cytology and Genetics, Lavrentyeva avenue 10, Novosibirsk, 630090, Russian Federation; Department of Agrotechnology and Food Sciences, Subdivision Biochemistry, Wageningen University and Research Center, Stippeneng 4, Wageningen, 6708WE, Netherlands*
- Plant16 **Study of the effect of nanocomposites based on humic substances of different nature on the causative agent of ring rot of Clavibacter michiganensis ssp. sepedonicus potato plants.**  
O.A. Nozhkina<sup>1 \*</sup>, A. I. of Perfilyeva<sup>1</sup>, I. A. of Graskova<sup>1</sup>, B. G. Sukhov<sup>2</sup>  
<sup>1</sup> *Siberian Institute of physiology and biochemistry of plants of the Siberian Branch of the Russian Academy of Science, Irkutsk, Russia*  
<sup>2</sup> *Irkutsk Institute of chemistry of A.E. Favorskii of the Siberian Branch of the Russian Academy of Science, Irkutsk, Russia*
- Plant17 **Mathematical modeling of chilling stress induced changes in Arabidopsis thaliana root meristem**  
Savina M.S.<sup>1,2\*</sup>, Jing Han Hong<sup>3</sup>, Jian Xu<sup>3</sup>, Mironova V.V.<sup>1,2</sup>  
<sup>1</sup> *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia;* <sup>3</sup> *Department of Biological Sciences and Centre for BioImaging Sciences, National University of Singapore, Singapore, Singapore;*
- Plant18 **Establishment of a Regional Centre for DNA-barcoding of Rare and Endangered Plant Species based on the DNA Bank of the Republic of Belarus**  
N.Savina<sup>1\*</sup>, S.Kubrak<sup>1</sup>, E.Kuzminova<sup>1</sup>, E.Mikhalenko<sup>1</sup>, L.Milko<sup>1</sup>, A.Kolbas<sup>2</sup>, N.Matusevich<sup>2</sup>, E.Makeyeva<sup>1</sup>, A.Kilchevskiy<sup>1</sup>  
<sup>1</sup> *Institute of Genetics and Cytology NASB, Minsk, Belarus;* <sup>2</sup> *Brest State University named after A.S. Pushkin, Brest, Belarus*
- Plant19 **The Novel Tandem Repeat of 646 bp Identifies the Subtelomeric Region of Wheat 5BS Chromosome**  
Sergeeva E.M.<sup>1\*</sup>, Adonina I.G.<sup>1</sup>, Nesterov M.A.<sup>1</sup>, Salina E.A.<sup>1</sup>  
<sup>1</sup> *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Plant20 **The Evaluation of Reproduction Type of Puccinia graminis f. sp. tritici Population Prevailing in West Siberia**  
Sergeeva E.M.<sup>1\*</sup>, Skolotneva E.S.<sup>1</sup>, Kelbin V.N.<sup>1</sup>, Konkova S.I.<sup>2</sup>, Nesterov M.A.<sup>1</sup>, Salina E.A.<sup>1</sup>  
<sup>1</sup> *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia*
- Plant21 **Regulatory genes of anthocyanins biosynthesis in the barley grain**  
K.V. Strygina<sup>1\*</sup>, E.K. Khlestkina<sup>1,2</sup>  
<sup>1</sup> *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia*
- Plant22 **Genes determining anthocyanin pigmentation in Solanum tuberosum L.**  
K.V. Strygina<sup>\*</sup>, E.K. Khlestkina, A.V. Kochetov  
*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*

- Plant23 **Application of SRAP fingerprinting for analysis of *L. angustifolius* cDNA**  
E.Sysoliatin\*, N.Anisimova, A.Kilchevsky  
*Institute of Genetics and Cytology, NAS of Belarus, Minsk, Belarus*
- Plant24 **Discordant evolution of YUCCA family proteins demonstrated along sequence**  
I. Turnaev<sup>1\*</sup>, K. Gunbin<sup>1</sup>, V. Suslov<sup>1</sup>, D. Afonnikov<sup>1,2</sup>  
<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Plant25 **Computational modelling of morpho-genesis based on data from 3D LSM-images**  
U. Zubairova<sup>1\*</sup>, A. Doroshkov<sup>1,2</sup>  
<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*  
<sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*

## SYMPOSIUM

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22-23 August 2018

- BGE1 **Genetic Diversity of *Plantago major* L. Local Populations in the Habitats of Nizhniy Tagil Different in the Level of Technogenic Load**  
E. Artemenko\*, E. Zhuikova, I. Kiseleva  
*Ural Federal University, Yekaterinburg, Russia*
- BGE2 **Genetic Diversity of *Taraxacum Officinale* Wigg. Local Populations in the Habitats of Nizhniy Tagil Different in the Level of Technogenic Load**  
E. Artemenko, E. Zhuikova, I. Kiseleva  
*Ural Federal University, Yekaterinburg, Russia*
- BGE3 **Repeated DNA Sequences in Genomes of Species of the Genus *Linum***  
N. Bolsheva<sup>1</sup>, I. Kirov<sup>2</sup>, N. Melnikova<sup>1</sup>, A. Dmitriev<sup>1</sup>, G. Krasnov<sup>1</sup>, A. Amosova<sup>1</sup>, T. Samatadze<sup>1</sup>, O. Yurkevich<sup>1</sup>, S. Zoshchuk<sup>1</sup>, T. Rozhmina<sup>1,3</sup>, A. Kudryavtseva<sup>1</sup>, O. Muravenko<sup>1</sup>  
<sup>1</sup>*Engelhardt Institute of Molecular Biology, RAS, Moscow, Russia;* <sup>2</sup>*Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, RAS, Moscow, Russia;* <sup>3</sup>*All-Russian Research Institute for Flax, Torzhok, Russia*
- BGE4 **Genetic Diversity of Cultivated Flax Based on *CesA* Genes**  
Dmitriev<sup>1</sup>, T. Rozhmina<sup>1,2</sup>, G. Krasnov<sup>1</sup>, A. Snezhkina<sup>1</sup>, R. Novakovskiy<sup>1</sup>, P. Kezimana<sup>1</sup>, N. Bolsheva<sup>1</sup>, O. Muravenko<sup>1</sup>, A. Kudryavtseva<sup>1</sup>, N. Melnikova<sup>1</sup>  
<sup>1</sup>*Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia;* <sup>2</sup>*All-Russian Research Institute for Flax, Torzhok, Russia*
- BGE5 **Evolutionary Patterns of piRNA-generating Clusters in Human Genome**  
O. Dolgova<sup>1</sup>, R. Mulet<sup>2</sup>, L. Llobet<sup>3</sup>, S. Casillas<sup>2</sup>, T. Vavouri<sup>3</sup>  
<sup>1</sup>*Population Genomics Team, Centre Nacional d'Anàlisi Genòmica, Barcelona, Spain;* <sup>2</sup>*Institut de Biotecnologia i Biomedicina and Department de Genètica i Microbiologia, Universitat Autònoma de Barcelona, Barcelona, Spain;* <sup>3</sup>*Josep Carreras Leukaemia Research Institute, Barcelona, Spain*
- BGE6 **Biological diversity of the bacterial community of the Vostok bay (Japan Sea) by high-throughput sequencing**  
Y.S. Golozubova, L.S. Buzoleva, E.A. Bogatyrenko  
*Far Eastern Federal University, Vladivostok, Russia*
- BGE7 **Searching for signatures of cold adaptation in human *TRP* genes**  
A.V. Igoshin<sup>1</sup>, K.V. Gunbin<sup>1</sup>, N.S. Yudin<sup>1,2</sup>, M.I. Voevoda<sup>1,2,3</sup>  
<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia;* <sup>3</sup>*Institute of Internal and Preventive Medicine – branch of ICG SB RAS, Novosibirsk, Russia*
- BGE8 **Polymorphism in Genes Related to Fatty Acid Composition in *Linum usitatissimum***  
P. Kezimana<sup>1,2</sup>, A. Dmitriev<sup>1</sup>, T. Rozhmina<sup>1,3</sup>, R. Novakovskiy<sup>1</sup>, E. Romanova<sup>2</sup>, A. Kudryavtseva<sup>1</sup>, N. Melnikova<sup>1</sup>  
<sup>1</sup>*Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia;* <sup>2</sup>*Peoples' Friendship University of Russia (RUDN University), Moscow, Russia;* <sup>3</sup>*All-Russian Research Institute for Flax, Torzhok, Russia*
- BGE9 **Evolutionary study of low complexity glycine-arginine rich domains**  
Kotyurgin<sup>1</sup>, A. Alexeevski<sup>1,2</sup>

- BGE10 **Phylogenetic Analysis of Genes Encoding the Enzymes of Plant Amino Acids Catabolism in Representatives of the Genus *Methylobacterium***  
M. Krohaleva<sup>1</sup>, D. Fedorov<sup>2</sup>, G. Ekimova<sup>2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Institute of Biochemistry and Physiology of Microorganisms RAS, Pushchino, Russia
- BGE11 **Finding shifts in the evolution of mitochondrial metabolism**  
A.A. Kuzminkova<sup>1</sup>, K.Yu. Popadin<sup>1,2</sup>, K.V. Gunbin<sup>1,3</sup>  
<sup>1</sup> School of Life Science, Immanuel Kant Federal Baltic University, Kaliningrad, Russia; <sup>2</sup> Center for Integrative Genomics, University of Lausanne, Lausanne, Switzerland; <sup>3</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- BGE12 **Recombination landscapes in eight avian species**  
L. Malinovskaya<sup>1,2</sup>, N. Torgunakov<sup>2</sup>, A. Torgasheva<sup>1,2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- BGE13 **Massive Inter-Phylum Lateral Gene Transfer from *Planctomycetes*: the Case of TIGR02604 Family of the Putative Glycoside Hydrolases**  
D.G. Naumoff  
Winogradsky Institute of Microbiology, Research Center of Biotechnology of the Russian Academy of Sciences, Moscow, Russia
- BGE14 **Metagenomic Analysis of Metabolically Active Microbial communities of Salenoye Lake #48 in the Novosibirsk Region**  
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<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>3</sup> Institute of Geology and Mineralogy SB RAS, Novosibirsk, Russia; <sup>4</sup> Borekov Institute of Catalysis SB RAS, Novosibirsk, Russia
- BGE15 **Challenges of *in vitro* conservation of Citrus genetic resources**  
L.S. Samarina<sup>1</sup>, V.I. Malyarovskaya<sup>1</sup>, R.S. Rakhmangulov<sup>1</sup>, Y.L. Orlov<sup>2</sup>, O.B. Dobrovolskaya<sup>2</sup>  
<sup>1</sup> Russian Research Institute of Floriculture and Subtropical Crops, Sochi, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- BGE16 **Polymorphism in the Promoter Region of the Squalene Synthase Gene in different amaranth species**  
A.B. Shcherban, A.I. Stasyuk, E.A. Salina  
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- BGE17 **An intron of the hsp90 gene as a new promising phylogenetic marker for the genus *Carex* L.**  
I.N. Shekhovtsova<sup>1</sup>, S.V. Shekhovtsov<sup>2,3</sup>, S.E. Peltek<sup>2</sup>  
<sup>1</sup> Central Siberian Botanical Garden SB RAS, Novosibirsk, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>3</sup> Institute of Biological Problems of the North FEB RAS, Magadan, Russia
- BGE18 **Revised molecular phylogeny of *Acrididae* family**  
I. Sukhikh<sup>1</sup>, K. Ustyantsev<sup>1</sup>, V. Vavilova<sup>1</sup>, A. Blinov<sup>1,2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Institute of Immunology and Physiology UB RAS, Yekaterinburg, Russia
- BGE19 **Homologous series and parallel evolution problem**  
V. Suslov, M. Ponomarenko, D. Rasskazov  
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- BGE20 **Endosymbiotic Bacteria *Wolbachia* in Siberian Populations of *Acrididae* grasshopper (*Orthoptera*)**  
Tikhomirova<sup>1</sup>, M. Yudina<sup>1,2</sup>, G. Yurlova<sup>2</sup>, R. Bykov<sup>2</sup>, A. Bugrov<sup>1,3</sup>, Yu. Ilinsky<sup>1,2</sup>  
<sup>1</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>3</sup> Institute of Systematics and Ecology of Animals SB RAS, Novosibirsk, Russia
- BGE21 **The reasons for mtDNA structural instability: evolutionary physico-chemical retrospective**  
V.N. Timonina<sup>1</sup>, D.A. Knorre<sup>2</sup>, K.Yu. Popadin<sup>1,3</sup>, K.V. Gunbin<sup>1,4</sup>  
<sup>1</sup> School of Life Science, Immanuel Kant Federal Baltic University, Kaliningrad, Russia; <sup>2</sup> A.N. Belozersky Institute of Physico-Chemical Biology, MSU, Moscow, Russia; <sup>3</sup> Center for Integrative Genomics, University of Lausanne, Lausanne, Switzerland; <sup>4</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- BGE22 **Specific anthrax bacteriophages as a factor for selection of subcultures with different phenotypic and genetic characteristics out of populations of *Bacillus anthracis* strains**  
O.I. Tsygankova, E.A. Koteneva, A.V. Kalinin  
Stavropol Plague Control Research Institute, Stavropol, Russia

- BGE23 Fractal analysis of otolith microrelief as a method for determines relationship of species**  
M.L. Tyagun<sup>1</sup>, A.A. Golovko<sup>2</sup>  
<sup>1</sup> Limnological Institute SB RAS, Irkutsk, Russia; <sup>2</sup> Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia
- BGE24 Genomic characterization of DEP1 gene in the *Triticinae* species with compact, compactoid and normal spike shape**  
V. Vavilova, I. Konopatskaia, A. Blinov  
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- BGE25 Genetic Diversity and Phylogeny of *Wolbachia* in Lepidopteran Hosts**  
M. Yudina<sup>1,2</sup>, V. Dubatolov<sup>3</sup>, R. Bykov<sup>1</sup>, I. Mazunin<sup>4</sup>, Yu. Ilinsky<sup>1,2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>3</sup> Institute of Systematics and Ecology of Animals SB RAS, Novosibirsk, Russia; <sup>4</sup> Immanuel Kant Baltic Federal University, Kaliningrad, Russia
- BGE26 Allelic Diversity of the *GJB2* Gene in Deaf Patients and Ethnically Matched Populations from South Siberia**  
M. Zytsar<sup>1,2</sup>, M. Bady-Khoo<sup>3</sup>, E. Maslova<sup>1,2</sup>, V. Danilchenko<sup>1,2</sup>, N. Barashkov<sup>4,5</sup>, I. Morozov<sup>2,6</sup>, A. Bondar<sup>6</sup>, O. Posukh<sup>1,2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>3</sup> Scientific Research Institute of Medical-Social Problems and Management of the Republic of Tuva, Kyzyl, Russia; <sup>4</sup> Laboratory of Molecular Biology, MK Ammosov North-Eastern Federal University, Yakutsk, Russia; <sup>5</sup> Laboratory of Molecular Genetics, Yakut Scientific Centre of Complex Medical Problems, Yakutsk, Russia; <sup>6</sup> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia
- BGE27 Haplotype Analysis of the *HFE* Gene Among Patients with Different Forms of Tick-borne Encephalitis**  
S. Mikhailova<sup>1</sup>, A. Barkhash<sup>1</sup>, I. Kozlova<sup>2</sup>, I. Borischuk<sup>3</sup>, N. Yudin<sup>1</sup>, O. Zaitseva<sup>4</sup>, L. Pozdnyakova<sup>5</sup>, M. Voevoda<sup>1</sup>  
<sup>1</sup> Federal Research Centre Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Federal State Public Scientific Institution "Scientific Centre for Family Health and Human Reproduction Problems", Irkutsk, Russia; <sup>3</sup> Irkutsk Regional Infectious Clinical Hospital, Irkutsk, Russia; <sup>4</sup> Scientific Research Institute of Medical Problems of the North, Federal Research Center "Krasnoyarsk Science Center" SB RAS, Krasnoyarsk, Russia; <sup>5</sup> City Infectious Clinical Hospital No. 1, Novosibirsk, Russia
- BGE28 Comparative genome analysis of related *Lymantria dispar* nucleopolyhedrovirus isolates differing in virulence**  
V. Martemyanov  
Institute of systematics and ecology of animals SB RAS, Novosibirsk, Russia; National Research Tomsk State University, Tomsk, Russia
- MHB1 Algorithm for solving the inverse problem of pharmacokinetics to determine the transition coefficients** A. Takuadina  
L.N. Gumilev Eurasian National University, Astana, Kazakhstan
- MHB2 Mathematical modeling of medicinal preparations diffusion process in tissues of the person** A. Nafikova  
Sterlitamak branch of the Bashkir state university, Sterlitamak, Russia
- MHB3 Mathematical model of membrane potential formation at *E. coli* growth on nitrite** N.A. Ree, Likhoshvai V.A., T.M. Khlebodarova  
Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- MHB4 Different effects of agroclimatic factors on time to emergence and time to flowering in nine soybean accessions** K. Kozlov<sup>1</sup>, L. Novikova<sup>1,2</sup>, I. Seferova<sup>2</sup>, S. Nuzhdin<sup>1,3</sup>, M. Samsonova<sup>1</sup>  
<sup>1</sup> Peter the Great St.Petersburg Polytechnic University, St.Petersburg, Russia; <sup>2</sup> Federal Research Center the N.I. Vavilov All-Russian Institute of Plant Genetic Resources, St. Petersburg, Russia; <sup>3</sup> University of Southern California, Los Angeles, CA, USA
- MHB5 A numerical algorithm of parameter identification in mathematical model of tuberculosis transmission with control programs** S.I. Kabanikhin<sup>1,2</sup>, O.I. Krivorotko<sup>1,2</sup>, V.N. Kashtanova<sup>2</sup>  
<sup>1</sup> Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- MHB6 Inverse and ill-posed problems for nonlinear PDE: applications to life and social sciences** M. Shishlenin<sup>1,2,3</sup>, D. Lukyanenko<sup>4</sup>  
<sup>1</sup> Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia; <sup>2</sup> Sobolev Institute of Mathematics SB RAS, Novosibirsk, Russia; <sup>3</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>4</sup> Moscow State University, Moscow, Russia
- MHB7 Pseudo one-compartment models. Methods for assessing the peripheral compartment for them** N. Asmanova, A.I. Ilin

JSC “Scientific center for anti-infection drugs”, Almaty, Kazakhstan

- MHB8 **Revealing the research institutes and their interactions: a case study of miRNA research** A. Firsov<sup>1</sup>, I. Titov<sup>2</sup>  
<sup>1</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
- MHB9 **Comparison of quality of automated Gene Network Recon-struction using connectivity of random and functional Net-works** E. Tiys<sup>1,2</sup>, P. Demenkov<sup>1</sup>, V. Ivanisenko<sup>1</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- MHB10 **Principal component analysis for any type sequences (PCA-Seq)** V. Efimov<sup>1,2,3,4</sup>, K. Efimov<sup>5</sup>, V. Kovaleva<sup>2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Institute of Systematics and Ecology of Animals SB RAS, Novosibirsk, Russia; <sup>3</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>4</sup> Tomsk State University, Tomsk, Russia; <sup>5</sup> Moscow Institute of Physics and Technology (State University), Moscow, Russia
- MHB11 **Identifiability analysis of mathematical models of immunology and epidemiology**  
V. Latyshenko<sup>1,2</sup>, O. Krivorotko<sup>1,2</sup>, S. Kabanikhin<sup>1</sup>  
<sup>1</sup> Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- MHB12 **FoldGO for functional annotation of transcriptome data to identify fold-change-specific GO categories** S. Wiebe<sup>1,2</sup>, A.M. Mukhin<sup>1,2</sup>, N.A. Omelyanchuk<sup>1,2</sup>, V.V. Mironova<sup>1,2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- MHB13 **SNP\_TATA\_Z-TESTER: unsupervised machine learning web-service to compare alternative sequences in front of a given transcription start in the affinity scale of tata-binding protein binding to promoters**  
P. M. Ponomarenko<sup>1</sup>, D. A. Rasskazov<sup>2</sup>, V. V. Suslov<sup>2</sup> and M. P. Ponomarenko<sup>2,3</sup>  
<sup>1</sup> University of La Verne, La Verne, CA 91750, USA; <sup>2</sup> Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia; <sup>3</sup> Novosibirsk State University, Novosibirsk, Russia
- MHB14 **Genome-scale modeling of carbon assimilation in Geobacillus icigianus**  
M. Kulyashov<sup>1</sup>, I. Akberdin<sup>1,2,3</sup>, A. Rozanov<sup>2</sup>, S. Peltek<sup>2</sup>  
<sup>1</sup> Novosibirsk National Research University, Novosibirsk, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>3</sup> Biology Department and Viral Information Institute, San Diego State University, San Diego, USA
- MHB15 **Dynamic Modelling of CFTR Receptor Maturation in Cystic Fibrosis: What Controls the Receptor Concentration in the Plasma Membrane?** Daria Astapenko<sup>\*1,2</sup>, Hugo M. Botelho<sup>3</sup>, Alexey Kolodkin<sup>2,4,5,6,7</sup>, Hans V. Westerhoff<sup>3,6,7,8</sup>, Margarida D. Amaral<sup>3</sup>.  
<sup>1</sup>Novosibirsk State University, Novosibirsk, Russia; <sup>2</sup>Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>3</sup>Biosystems and Integrative Sciences Institute (BioISI) of the University of Lisbon; <sup>4</sup>Infrastructure for Systems Biology Europe (ISBE); <sup>5</sup>Luxembourg Centre for Systems Biomedicine, University of Luxembourg, Luxembourg; <sup>6</sup>Molecular Cell Physiology, VU University Amsterdam, the Netherlands; <sup>7</sup>Synthetic Systems Biology, SILS, University of Amsterdam, the Netherlands; <sup>8</sup>Manchester Centre for Integrative Systems Biology, UK

## SECTION

«Proteomics»

23 August, Thursday

- Prot1 **The study of protein composition of Triaenophorus sp. at different stages of the life cycle and in different body segments**  
A. Kochneva<sup>1</sup>, E. Borvinskaya<sup>1,2</sup>, D. Bedulina<sup>2</sup>  
<sup>1</sup>Institute of Biology of the Karelian Research Centre of the Russian Academy of Sciences, Petrozavodsk, Russia; <sup>2</sup>Research Institute of Biology of Irkutsk State University, Irkutsk, Russia
- Prot2 **Protein structural domain prediction via machine learning approach**  
D. Iakovlev<sup>1</sup>, A. Kobchenko, E. Semina  
<sup>1</sup> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia
- Prot3 **Proteomic analysis of extremely stable soluble high molecular mass multi-protein complex of human placenta**  
E. Burkova<sup>1</sup>, G. Nevinsky<sup>1,2</sup>

- Prot4 <sup>1</sup> *Institute of Chemical biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia*  
**The search of blood-based biomarkers for schizophrenia by proteomics methods**  
 E. Dmitrieva<sup>1</sup>, L. Smirnova<sup>1</sup>, A. Seregin<sup>1</sup>, A. Letova<sup>3</sup>, E. Kornetova<sup>1</sup>, A. Semke<sup>1</sup>, V. Zgoda<sup>2</sup> and S. Ivanova<sup>1</sup>  
<sup>1</sup> *Mental Health Research Institute, Tomsk, Russia;* <sup>2</sup> *Institute of Biomedical Chemistry, Moscow, Russia;* <sup>3</sup> *Siberian State Medical University, Tomsk, Russia*
- Prot5  
**Milk exosomes: isolation, proteins, and nucleic acids**  
 L. Purvinsh<sup>1,2</sup>, S. Sedykh<sup>1,2</sup>, G. Nevinsky<sup>2</sup>  
<sup>1</sup> *Novosibirsk State University, Novosibirsk, Russia;* <sup>2</sup> *Institute of Molecular Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia*
- Prot6  
**Comparative proteomic analysis form patients with schizophrenia and bipolar disorder**  
 L.P. Smirnova<sup>1\*</sup>, E.M. Dmitrieva<sup>1</sup>, A.A. Letova<sup>2</sup>, A.A. Seregin<sup>1</sup> G.G. Simutkin<sup>1</sup>, A.V. Semke<sup>1</sup> and S.A. Ivanova<sup>1</sup>  
<sup>1</sup> *Mental Health Research Institute, Tomsk National Research Medical Center of the Russian Academy of Sciences, Tomsk, Russia;* <sup>2</sup> *Siberian State Medical University, Tomsk, Russia*
- Prot7  
**Novel Amyloid-Forming Protein in Escherichia coli**  
 M. Belousov<sup>1</sup>, S. Bondarev<sup>1</sup>, A. Kosolapova<sup>1,2</sup>, K. Antonets<sup>1,2</sup>, M. Belousova<sup>2</sup>, A. Sulatskaya<sup>3</sup>, M. Sulatsky<sup>3</sup>, G. Zhouravleva<sup>1</sup>, I. Kuznetsova<sup>3</sup>, K. Turoverov<sup>3,4</sup>, A. Nizhnikov<sup>1,2</sup>  
<sup>1</sup> *Saint Petersburg University, Saint Petersburg, Russia;* <sup>2</sup> *All-Russia Research Institute for Agricultural Microbiology, Pushkin, Saint Petersburg, Russia;* <sup>3</sup> *Institute of Cytology RAS, Saint Petersburg, Russia;* <sup>4</sup> *Peter the Great St Petersburg Polytechnic University, Saint Petersburg, Russia*
- Prot8  
**Statistical Analysis of Macromolecular B Values**  
 R. Masmaliyeva<sup>1\*</sup>, G. N. Murshudov<sup>2</sup>  
<sup>1</sup> *Institute of Molecular Biology and Biotechnologies ANAS, Baku, Azerbaijan;* <sup>2</sup> *MRC Laboratory of Molecular Biology, Cambridge, UK*
- Prot9  
**Molecular design of a new class of inhibitors for ion channel of influenza a protein M2**  
 Y. N. Vorobjev, O.S. Fedorova  
<sup>1</sup> *Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia*
- Prot10  
**Effect of Salt Bridges Rupture on The Activity and Thermostability of Chymosin**  
 E.S. Novoselova<sup>1\*</sup>, Rudometov A.P.<sup>2</sup>, Kriger A.V.<sup>3</sup>, Elchaninov V.V.<sup>3</sup>.  
<sup>1</sup> *Novosibirsk State University, Novosibirsk, Russia;* <sup>2</sup> *State Research Center of Virology and Biotechnology "Vector" Rospotrebnadzor, Koltsovo, Russia;* <sup>3</sup> *Federal Altai Scientific Centre of Afro-BioTechnologies, Barnaul, Russia*
- Prot11  
**The secretome of Serratia marcescens SM6 under oxidative stress conditions**  
 L.E. Matrosova<sup>1</sup>, I.V. Khilyas<sup>1</sup>, L.M. Bogomolnaya<sup>1,2</sup>  
<sup>1</sup> *Institute of Fundamental Medicine and Biology KFU, Kazan, Russia;* <sup>2</sup> *Texas A&M University Health Science Center, Bryan, 77807, Texas, USA*
- Prot12  
**MOLECULAR CHARACTERIZATION of AQUAGLYCEROPORINE: A NOVEL MUTATION IN LMAQP1 from LEISHMANIA MAJOR (MRHO/IR/75/ER)**  
 G. Eslami\*, M. Ghavami  
<sup>1</sup> *Research Center for Food Hygiene and Safety, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*
- Prot13  
**Study of pathogenic features of stress-related disorders by proteomics methods**  
A. Seregin<sup>1</sup>, L. Loginova<sup>1</sup>, A. Letova<sup>2</sup>, E. Dmitrieva<sup>1</sup>, N Karageorgiy<sup>3</sup>, V. Rudnitckiy<sup>1</sup>, L. Smirnova<sup>1</sup>  
<sup>1</sup> *Mental Health Research Institute, Tomsk National Research Medical Center of the RAS, Tomsk, Russia;* <sup>2</sup> *Siberian State Medical University, SSMU, Tomsk, Russia;* <sup>3</sup> *Tomsk State Pedagogical University, Tomsk, Russia*

- Anim1 **Studying the impact of sex on the molecular mechanisms of liver adaptation to fasting in mice**  
N. Bazhan<sup>1,2\*</sup>, N. Sitnikova<sup>2</sup>, T. Iakovleva<sup>1</sup>, A. Dubinina N<sup>1</sup>, E. Makarova<sup>1</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- Anim2 **The roles of Asp and Patronin in mitotic spindle formation in Drosophila**  
A. Razuvaeva<sup>1,2\*</sup>, G. Pavlova<sup>1</sup>, J. Popova<sup>1,3</sup>, L. Yarinich<sup>1,2</sup>, M. Lebedev<sup>1,2</sup>, E. Andreyeva<sup>1</sup>, A. Anders<sup>1,2</sup>, M. Gatti<sup>4</sup>, A. Pindyurin<sup>1,2,3</sup>  
<sup>1</sup> Institute of Molecular and Cellular Biology SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia; <sup>3</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>4</sup> Sapienza University of Rome, Rome, Italy
- Anim3 **Aldosterone Mineralocorticoid Receptors Expression in Male Ay Mice**  
N.S. Logvinenko\*, L.E. Katkova, G.S. Baturina  
*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Anim4 **FGF21 signaling and brown adipose activity gene expressions in male and female mice under fasting and refeeding states**  
T. Iakovleva<sup>1\*</sup>, N. Balybina<sup>2</sup>, N. Makarova<sup>1</sup>, N. Bazhan<sup>1,2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- Anim5 **The Moonlighting Functions of the NON3 Protein in Drosophila melanogaster**  
J. Popova<sup>1,2\*</sup>, G. Pavlova<sup>1</sup>, E. Andreyeva<sup>1</sup>, A. Ogienko<sup>1</sup>, A. Yushkova<sup>1,3</sup>, A. Ivankin<sup>1</sup>, E. Kozhevnikova<sup>1,2</sup>, A. Pindyurin<sup>1,2,3</sup>  
<sup>1</sup> Institute of Molecular and Cellular Biology SB RAS, Novosibirsk, Russia; <sup>2</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>3</sup> Novosibirsk State University, Novosibirsk, Russia
- Anim6 **Lethal yellow ( $A^Y$ ) mutation in the *agouti* gene causes the depressive-like alterations in the mouse brain and behavior**  
A.V. Plyusnina<sup>1\*</sup>, N.V. Khotskin<sup>1</sup>, E.A. Kulikova<sup>1</sup>, E.Y. Bazhenova<sup>1</sup>, D.V. Fursenko<sup>1</sup>, I.E. Sorokin<sup>1</sup>, I. Kolotygin<sup>2</sup>, O.B. Shevelev<sup>1</sup>, A.V. Kulikov<sup>1</sup>  
<sup>1</sup> Federal Research Center Institute of Cytology and Genetic SB RAS, 630090, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, 630090, Novosibirsk, Russia
- Anim7 **Sex-specific effect of leptin on gene expression in placentas and fetal tissues in mice**  
E. Denisova\*, E. Makarova  
*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Anim8 **Oxidative stress and nitric oxide synthesis in ISIAH rats with inherited stress-induced arterial hypertension**  
L. Klimov<sup>1,2\*</sup>, M.Zhuravina<sup>1,2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Novosibirsk State University, Novosibirsk, Russia
- Anim9 **Comparative experimental analysis of the reproductive potential and sexual behavior of house mice from the Transcaucasian hybrid zone and *Mus musculus*.**  
E. Kotenkova<sup>1\*</sup>, A. Maltsev<sup>1</sup>, A. Ambaryan<sup>1</sup>  
<sup>1</sup> Severtsov Institute of Ecology and Evolution RAS, Moscow, Russia
- Anim10 **Taurine Affects the Predisposition to Audiogenic Epilepsy in PM Rats**  
O.I. Prokudina<sup>1\*</sup>, T.A. Alekhina<sup>1</sup>, A.V. Solovyeva<sup>2</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Altai State University, Barnaul, Russia
- Anim11 **Astrocyte-to-neurone Lactate Communication in the Brain**  
A.G. Teschemacher\*, B.V. Cardoso, V. Mosienko, B.H. Liu, S. Kasparov  
*University of Bristol, United Kingdom*
- Anim12 **FTO haplotyping underlines high obesity risk for European populations.**  
R.O. Babenko, V.N. Babenko\*, L.N. Trut, A.L.  
*Markel Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- Anim13 **Selection for Behavior, Intermale Confrontations, and Corticosterone and Testosterone Levels in the Blood of Norway Rats**  
R.Gulevich<sup>1\*</sup>, R. Kozhemyakina<sup>1</sup>, M. Konoshenko<sup>2</sup>, S. Shikhevich<sup>1</sup>  
<sup>1</sup> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; <sup>2</sup> Institute of Chemical Biology and Fundamental Medicine, Novosibirsk, Russia
- Anim14 **Expression of *Th*, *Comt* and *Maoa* Genes and Brain Catecholamine Levels in Rats with Genetic Catatonia**  
M. Ryazanova<sup>1,3\*</sup>, T. Latysheva<sup>2</sup>, V. Plekanchuk<sup>1,3</sup>, O. Prokudina<sup>1</sup>, M. Gilinsky<sup>2</sup>, T. Alekhina<sup>1</sup>



- Anim15 <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Research Institute of Physiology and Fundamental Medicine, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*  
**The impact of rapid decrease of *Aporia crataegi* (Lepidoptera: Pieridae) population size on *Wolbachia* infection rate**  
 G. Yurlova<sup>1\*</sup>, R. Bykov<sup>1</sup>, M. Yudina<sup>1,2</sup>, A. Tikhomirova<sup>2</sup>, O. Kosterin<sup>1,2</sup>, Yu. Ilinsky<sup>1,2</sup>
- Anim16 <sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*  
**High *Wolbachia* Infection Rate in Four-Eyed Fir Bark Beetle (*Polygraphus proximus*) Populations of Tomsk Province**  
R. Bykov<sup>1</sup>, I. Kerchev<sup>2</sup>, M. Yudina<sup>1,3</sup>, G. Yurlova<sup>1</sup>, A. Tikhomirova<sup>3</sup>, Yu. Ilinsky<sup>1,3</sup>  
<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Institute of Systematics and Ecology of Animals SB RAS, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Anim17 ***Wolbachia* and mtDNA Diversity and Distribution in Palearctic *Drosophila melanogaster* Populations**  
R. Bykov<sup>1\*</sup>, I. Mazunin<sup>2</sup>, M. Yudina<sup>1,3</sup>, Yu. Ilinsky<sup>1,2,3</sup>  
<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Immanuel Kant Baltic Federal University, Kaliningrad, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- Anim18 **Effect of Stress-related Hormones on Host *Drosophila* Fitness Depends on Endosymbiont *Wolbachia* Genotype**  
N. Adonyeva, E. Burdina, N. Gruntenko, I. Rauschenbach  
**Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia**

## SYMPOSIUM

### «Cognitive sciences, genomics and bioinformatics», CSGB-2018

24 August, Friday

- CSGB 1. **The long-term consequences of early-life dexamethasone treatment on the cognitive ability of male mice and gene expression in the hippocampus**  
 U.I. Batluk<sup>1,2</sup>, K.V. Burdeeva<sup>3</sup>, A.O. Degtyareva<sup>1</sup>, O.M. Dolganova<sup>1,3</sup>, N.I. Ershov<sup>1</sup>, T.I. Merkulova<sup>1,2</sup>, N.P. Bondar<sup>1,2</sup>  
<sup>1</sup>*Institute of Cytology and Genetics of SB RAS, Novosibirsk, Russia;* <sup>2</sup>*National Research Novosibirsk State University, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State Medical University, Novosibirsk, Russia*
- CSGB 2. **Cognitive activity and students' coping strategies**  
 S. Krivoschekov<sup>1</sup>, E. Vergunov<sup>1</sup>, N. Balioz<sup>1</sup>, K. Soloveva<sup>2</sup>, E. Bobrovskaya<sup>2</sup>  
<sup>1</sup>*Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University of Economics and Management, Novosibirsk, Russia*
- CSGB 3. **Impact of early life stress on susceptibility to chronic social stress in adult mice**  
 A. Lepeshko<sup>1,2</sup>, V. Reshetnikov<sup>1</sup>, N. Bondar<sup>1,2</sup>  
<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- CSGB 4. **Temporo-parietal junction as a mediator of reactive social behavior: The role of agreeableness**  
 E. Merkulova, A. Savostyanov, A. Bocharov, G. Knyazev  
*Laboratory of Psychophysiology of Individual Differences, Institute of Physiology and Basic Medicine, Novosibirsk, Russia*
- CSGB 5. **Effects of the endothelial nitric oxide synthase gene polymorphisms on the risk of metabolic syndrome in subjects with schizophrenia**  
 D. Parshukova, N. Fattakhov, L. Smirnova, V. Dubrovskaya, E. Kornetova, A. Semke, S. Ivanova  
*Mental Health Research Institute, Tomsk, Russia*
- CSGB 6. **Neurophysiological features of verbal divergent thinking in elderly scientists**  
 E. Privodnova<sup>1</sup>, N. Volf<sup>1,2</sup>  
<sup>1</sup>*Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*
- CSGB 7. **The effect of 5-HTTLPR polymorphism on EEG current source density**  
 E. Proshina<sup>1</sup>, A. Savostyanov<sup>1,2,3</sup>, A. Bocharov<sup>1,3</sup>, G. Knyazev<sup>1</sup>  
<sup>1</sup>*Institute of Physiology and Fundamental Medicine, Novosibirsk, Russia;* <sup>2</sup>*Institute of Cytology and Genetics, Novosibirsk, Russia;* <sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*
- CSGB 8. **Previous mother's experience and early life stress: impact on aggression and cognition in adult mice**  
 V.V. Reshetnikov<sup>1</sup>, Yu.A. Ryabushkina<sup>1,2</sup>, N.P. Bondar<sup>1,2</sup>  
<sup>1</sup>*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup>*Novosibirsk State University, Novosibirsk, Russia*

- CSGB 9. **Reconstruction of Gene Networks Associated with Autism and Related to mTOR Signaling Pathway using ANDSystem**  
O.V. Saik, E.A. Trifonova, T.M. Khlebodarova, V.A. Ivanisenko  
*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*
- CSGB 10. **Effect of ceftriaxone on cognitive deficits caused by amyloid-beta neurotoxicity in mice**  
A.E. Tishin<sup>1, 2</sup>, M.V. Tenditnik<sup>1, 2</sup>, M.A. Tikhonova<sup>1, 2</sup>  
<sup>1</sup> *Scientific Research Institute of Physiology and Basic Medicine, Novosibirsk, Russia;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia*
- CSGB 11. **The effects of 5-HTTLPR gene polymorphism on the behavioral reactions under emotional speech recognition among Mongolians**  
M.S. Vlasov<sup>1</sup>, D.V. Bazovkina<sup>3</sup>, S.S. Tamozhnikov<sup>2</sup>, T.A. Ausheeva<sup>4</sup>, A.N. Savostyanov<sup>2, 3, 4</sup>  
<sup>1</sup> *Shukshin Altai State Humanities Pedagogical University, Biysk, Russia;* <sup>2</sup> *Institute of Physiology & Basic Medicine, Novosibirsk, Russia;* <sup>3</sup> *Institute of Cytology and Genetics of SB RAS, Novosibirsk, Russia;* <sup>4</sup> *Novosibirsk State University, Novosibirsk, Russia*
- CSGB 12. **Association of PIP5K2A gene polymorphisms with the effectiveness of the therapy of current depressive episode**  
N.M. Vyalova, G.G. Simutkin, S.A. Ivanova  
*Mental Health Research Institute of the Federal State Budget Scientific Institution, Tomsk, Russia*
- CSGB 13. **Impact of early life stress on cognition, behavior and hippocampal neuronal plasticity in female mice**  
V. Reshetnikov<sup>1\*</sup>, A. Kovner<sup>1</sup>, J. Ryabushkina<sup>1, 2</sup>, A. Lepeshko<sup>1, 2</sup>, N. Bondar<sup>1, 2</sup>  
<sup>1</sup> *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* <sup>2</sup> *Novosibirsk State University, Novosibirsk, Russia*