



BGRS\SB-2016

**10th anniversary International Multiconference
«Bioinformatics of Genome Regulation and Structure\ Systems Biology»**

Novosibirsk, Russia, 29 August – 2 September, 2016

29 August, Monday	
8:30-10:00	Registration (<i>House of Scientists SB RAS, main entrance</i>)
10.20–16.20	Plenary session (<i>House of Scientists SB RAS, Large hall</i>) <i>Chairpersons: Prof. Nikolay Kolchanov, Prof. Ralf Hofestädt</i>
10:20-11.00	Opening (<i>House of Scientists SB RAS, Great hall</i>) <u>Nikolay Kolchanov</u> Institute of Cytology and Genetics, Novosibirsk, Russia
11.00–11.40	Aging and cancer: stateofart and prospects for prevention <u>Vladimir Anisimov</u> Department of Carcinogenesis and Oncogerontology, N.N. Petrov Research Institute of Oncology, Saint Petersburg, Russia
11.40–12.20	Postgenome medicine as n-of-one science <u>Andrey Lisitsa</u> , E.V. Kolker, H. Huan-Wen Chen, V.E. Frankevich Institute of Biomedical Chemistry, Moscow, Russia
12.20–13.00	Active maintenance of phylotranscriptomic hourglass patterns in plant and animal embryogenesis H.G. Drost ¹ , A. Gabel ¹ , I. Ivo Grosse ^{1,2} , M. Quint ^{3,4} ¹ Institute of Computer Science, Martin Luther University Halle-Wittenberg, Halle, Germany ² German Centre for Integrative Biodiversity Research Halle-Jena-Leipzig, Leipzig, Germany ³ Department of Molecular Signal Processing, Leibniz Institute of Plant Biochemistry, Halle, Germany ⁴ Institute of Agricultural and Nutritional Sciences, Martin Luther University Halle-Wittenberg, Halle, Germany
13.00–14.00	Lunch
14.00–14.40	Genetics of Aging and Dementia <u>Evgeny Rogaev</u> University of Massachusetts, USA
14.40–15.20	Regulation of RIPKs in cell survival and cell death by apoptosis and necroptosis, insights and therapeutic potential <u>Peter Vandenabeele</u> VIB Inflammation Research Center, Zwijnaarde-Ghent, Belgium Department of Biomedical Molecular Biology, Ghent University, Ghent, Belgium
15.20–16.00	Macroevolutionary and experimental assays of fitness landscapes <u>Fyodor Kondrashov</u> Centre for Genomic Regulation, Barcelona, Spain
16.20–17.00	Coffee break with Thomson Reuters. Coffee with Thomson Reuters. Integrity - essential knowledge to empower your drug discovery and development <u>Sergey Paramonov, Vladimir Poroikov</u> Thomson Reuters, Moscow, Russia

29 August

<i>Time</i>	<i>Small hall</i>	<i>Time</i>	<i>Library</i>	<i>Time</i>	<i>223</i>
16.40– 19.40	<p>Section “Systems Computational Biology” <i>Chairperson:</i> Alexander Ratushny, Celgene, Seattle, USA and Institute for Systems Biology, Seattle, USA</p>				
16.40– 17.10	<p>Evolution of phenotypic control by new genes through integrating and rewiring of ancestral expression networks <u>Manyuan Long</u> Department of Ecology and Evolution, The University of Chicago, Chicago, USA</p>				
17.10– 17.40	<p>KATIS: integrative information system for complementary medicine <u>Ralf Hofestädt</u>, V. Ogultarhan and A. Shoshi University Bielefeld, Bielefeld, Germany</p>				
17.40– 18.10	<p>FAIRDOM: Data and Model Management for Systems Biology Projects <u>Olga Krebs</u>¹, R. Kuzyakiv⁵, M. Golebiewski¹, S. Owen², Q. Nguyen¹, N. Stanford², K. Wolstencroft⁴, J.L. Snoep^{2,3}, B. Rinn⁵, W. Mueller¹, C. Goble² ¹Heidelberg Institute for Theoretical Studies, Germany ²School of Computer Science, University of Manchester, UK ³Department of Biochemistry, University of Stellenbosch, South Africa ⁴Leiden Institute of Advanced Computer Science, Leiden University, NL ⁵ETH Zurich, Swiss</p>				
18.10– 18.40	<p>Two models of the drosophila gap gene network with variation of maternal input <u>Konstantin Kozlov</u>¹, A.V. Svichkarev¹, V.V. Gursky^{1,2}, I.V. Kulakovskiy³, S.Y. Surkova¹, and M.G. Samsonova¹ ¹Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia ²Ioffe Institute, St. Petersburg, Russia ³Engelhardt Institute of Molecular Biology, RAS, Moscow, Russia</p>				
18.40– 19.10	<p>Differential analysis of three-dimensional (d) genomics data <u>Guoliang Li</u> Huazhong Agricultural University, Wuhan, China</p>				

19.10– 19.40	Elemental metabolomics—linking environmental, food, nutrition and health sciences P. Zhang ¹ , I. Giannenas ² , C.A. Georgiou ³ , <u>Vladimir Brusic</u> ^{1,4} ¹ Menzies Health Institute Queensland, Griffith University, Australia ² Aristotle University of Thessaloniki, Thessaloniki, Greece ³ Department of Food Science and Nutrition, Agricultural University of Athens, Greece ⁴ School of Medicine and Bioinformatics Center, Nazarbayev University, Kazakhstan				
19.40– 22.00	Buffet				
30 August					
9.00–13.10	Section “Genomics, Transcriptomics and Bioinformatics” (<i>House of Scientists SB RAS, Small hall</i>) <i>Chairpersons: Ivo Grosse, Halle-Wittenberg University, Halle, Germany; Vsevolod Makeev, VIGG RAS, MIPT, Moscow, Russia</i>				
9.00–9.30	Transcription by alternative sigma factors: revising the rigidity paradigm <u>Jelena Guzina</u> , M. Djordjevic Faculty of Biology, University of Belgrade, Studentski trg 16, 11000 Belgrade, Serbia				
9.30–10.00	Reconstruction of transcription control network in genome-reduced bacteria by high-throughput promoters identification <u>Irina Garanina</u> , G.U. Fisunov., D.V. Evsutina, V.M. Govorun Scientific Research Institute of Physical-Chemical Medicine SRI PCM, Moscow, Russia				
10.00– 10.30	Single cell expression profiling of neural crest-derived cells <u>Tatiana Subkhankulova</u> ¹ , G. Aquino ² , A. Rocco ² , H. Schwetlick ¹ , R.N. Kelsh ¹ ¹ Department of Biology and Biochemistry, University of Bath, Bath, UK ² Department of Microbial and Cellular Sciences, University of Surrey, Guildford, UK				
10.30– 10.45	Using Dolomite Microfluidics for sequencing the transcriptome of individual cells <u>Dmitry Brittal</u> LLC "Dia M", Moscow, Russia				

10.55– 11.10	Coffee break				
11.10– 11.40	<p>Dissecting variance heterogeneity in human serum metabolome</p> <p><u>Sodbo Sharapov</u>^{1,2}, Tsepilov Y.A.^{1,2}, Ried J.S.³, Strauch K.^{3,4}, Gieger C.³, Aulchenko Y.S.^{1,2}</p> <p>¹Institute of Cytology and Genetics SD RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Institute of Genetic Epidemiology, Helmholtz Zentrum München - German Research Center for Environmental Health, Neuherberg, Germany ⁴Institute of Medical Informatics, Biometry and Epidemiology, Chair of Genetic Epidemiology, Ludwig-Maximilians-Universität, Munich, Germany</p>	11.00– 16.00	<p>Section “Bioinformatics and Systems Biology of Cell Death”</p> <p><i>(House of Scientists SB RAS, Library)</i></p> <p><i>Chairpersons: Inna Lavrik, Otto von Guericke University, Magdeburg, Germany</i></p>		
11.40– 12.10	<p>HOCOMOCO Comprehensive Model Collection as a practical gateway to regulatory motif-ome of human and mouse transcription factors</p> <p>I.E. Vorontsov, Y.A. Medvedeva, V.J. Makeev, <u>Ivan Kulakovskiy</u></p> <p>Vavilov Institute of General Genetics, Moscow, Russia Engelhardt Institute of Molecular Biology, Moscow, Russia</p>	11.00– 11.40	<p>The p53 family in cancer biology</p> <p>I. Amelio¹, F. Bernassola², T.W. Mak², <u>Gerry Melino</u>^{1,3}</p> <p>¹MRC Toxicology Unit, Leicester LE1 9HN, United Kingdom ²The Campbell Family Cancer Research Institute, Toronto, Ontario M5G 2M9, Canada ³University of Rome Tor Vergata, Rome, Italy</p>		
12.10– 12.25	<p>Regulatory role of single CpG methylation</p> <p>A. Khamis¹, A.V. Artemov², A.V. Lioznova², V.B. Bajic¹, <u>Yulija Medvedeva</u>²</p> <p>¹King Abdullah University of Science and Technology ²Research Center of Biotechnology RAS</p>	11.40– 12.10	<p>Chemoresistance of lung adenocarcinoma is regulated by Tudor staphylococcal nuclease</p> <p><u>Boris Zhivotovsky</u>^{1,2}</p> <p>¹Lomonosov Moscow State University, Moscow, Russia ²Karolinska Institutet, Stockholm, Sweden</p>		
12.25– 12.40	<p>Ampliseq™: amplification and sequencing</p> <p><u>Ilya Volkov</u></p> <p>Department of scientific and methodological support of "Khimexpert Agency", Moscow, Russia</p>	12.10– 12.40	<p>The role of kinetochore-driven microtubule formation in <i>Drosophila</i> spindle assembly</p> <p>G. Pavlova^{1,2,*}, J. Popova^{1,3,*}, A. Munzarova^{1,4,*}, J. Galimova^{1,*}, A. Razuvaeva^{1,4}, F. Renda⁵, P. Somma⁵, A. Pindyurin^{1,4}, <u>Maurizio Gatti</u>⁵</p> <p>¹Institute of Molecular and Cellular Biology, Novosibirsk, Russia ²Kazan Federal University, Kazan, Russia ³Institute of Cytology and Genetics, Novosibirsk, Russia ⁴Novosibirsk State University, Novosibirsk, Russia ⁵Department of Biology and Biotechnology, Sapienza, University of Rome, Rome, Italy</p>		

12.40– 12.45	Target enrichment technologies for applied research <u>Dmitry Kwon</u> Agilent Technologies Russia, Moscow, Russia	12.40– 13.00	Involvement of various cell death modalities in cytotoxic activity of lactaptin analog Olga Koval ^{1,2} , G.V. Kochneva ^{1,3} , A.V. Tkachenko ¹ , O.S. Troitskaya ^{1,2} , G.F. Sivolobova ^{1,3} , E.V. Kuligina ¹ , A.Y. Yunusova ¹ , V.A. Richter ¹ ¹ Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia ² Novosibirsk State University ³ State Research Center of Virology and Biotechnology “Vector”, Koltsovo, Russia		
13.00– 14.00	Lunch	13.00– 14.00	Lunch		
14.00– 19.40	Section “Systems Computational Biology” (House of Scientists SB RAS, Small hall) Chairperson: Alexander Ratushny, Celgene, Seattle, USA and Institute for Systems Biology, Seattle, USA	14.00– 14.40	Towards understanding the dynamics of death receptor networks <u>Inna Lavrik</u> Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia Otto-von Guericke-University, Magdeburg, Germany		
14.00– 14.30	Virtual biology — the foundation <u>Fyodor Kolpakov</u> Institute of Systems Biology Ltd., Novosibirsk, Russia Design Technological Institute of Digital Techniques SB RAS Novosibirsk, Russia	14.40– 15.10	Delineating single cell life/death decisions in the CD95/FAS network <u>Jörn Buchbinder</u> ¹ , D. Pischel ² , K. Sundmacher ² , R.J. Flassig ² , I.N. Lavrik ¹ ¹ Department of Translational Inflammation Research, Otto-von-Guericke University Magdeburg, Germany ² Max-Planck-Institute for Dynamics of Complex Technical Systems, Magdeburg, Germany		
14.30– 14.45	A mathematical model for predicting of IgD–CD27+B lymphocytes levels in donors’ blood <u>Sergei Kuznetsov</u> ^{1*} , I.V. Kudryavtsev ² , A.V. Orekhov ¹ , A.V. Polevshchikov ² , M.K. Serebriakova ² , V.I. Shishkin ¹ ¹ St. Petersburg State University, St. Petersburg, Russia ² Institute of Experimental Medicine, St. Petersburg, Russia	15.10– 15.30	Novel approach for computational design of small molecule inhibitors of protein/protein interactions in CD95/FAS pathway <u>Nikita Ivanisenko</u> ^{1,2} , A.S. Ishchenko ^{1,2} , I.N. Lavrik ^{1,3} , V.A. Ivanisenko ¹ ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia ³ Otto-von Guericke-University, Magdeburg, Germany		
14.45– 15.00	Altered catecholaminergic, serotonergic, gabaergic, and glutamatergic genes	15.30– 15.50	Associative networks of glaucoma and apoptosis		

	<p>expression in the ventral tegmental area of male mice under chronic social defeat stress: RNA-SEQ data <u>Anna Galyamina</u>, I.L. Kovalenko, D.A. Smagin, N.N. Kudryavtseva Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>		<p>Olga Saik¹, P.S. Demenkov¹, O.S. Konovalova², M.N. Ponomareva², N.A. Konovalova², N.A. Kolchanov¹, I.N. Lavrik³, V.A. Ivanisenko¹. ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Tyumen State Medical Academy, Ministry of Health of the Russian Federation, Tyumen, Russia ³Otto von Guericke University Magdeburg, Magdeburg, Germany</p>		
15.00–15.15	<p>Modeling of two phases in <i>Drosophila</i> sensory organ precursor cell determination T.A.Bukharina¹, D.P.Furman^{1,2}, <u>Vladimir Golubyatnikov</u>^{2,3}, M.V.Kazantsev⁴ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Sobolev Institute of Mathematics SB RAS, Novosibirsk, Russia ⁴Polzunov Altai State Technical University, Barnaul, Russia</p>				
15.15–15.30	<p>Generalising better: applying deep-learning to integrate deleteriousness prediction scores for whole-exome SNV studies <u>Ilija Korvigo</u>, A.A. Afanasyev Moscow Institute of Physics and Technology</p>				
15.30–15.45	<p>Does thyroid divergence serve as a driver of speciation in cyprinid fishes of the genus <i>Ballerus</i> (teleostei)? <u>Boris Levin</u>^{1*}, A.A. Bolotovskiy¹, M.A. Levina¹, A.V. Nedoluzhko², K.G. Skryabin^{2,3,4}, S.M. Rastorguev², E.B. Prokhortchouk^{3,4} ¹Institute of Biology of Inland Waters RAS, Borok, Russia ²National Research Center Kurchatov Institute, Moscow, Russia ³Institute of Bioengineering, Federal Research Center “Fundamentals of Biotechnology” RAS, Moscow, Russia ⁴Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia</p>				
15.45–16.00	<p>Parameter fitting infrastructure for rule-based modelling O.S. Sorokina¹, <u>Anatoly Sorokin</u>^{2,3} ¹Edinburgh University, Edinburgh, UK ²Institute of Cell Biophysics RAS, Pushchino, Russia ³Moscow Institute of Physics and Technology, Dolgoprudny, Russia</p>				

16.00– 16.15	Coffee break				
16.15– 16.30	Solutions for analysis of NGS-data from the company Illumina Dania Gazizova ООО “Альбиоген”				
16.30– 16.45	Using the techniques of stochastic modelling and inhomogeneous sequential pattern recognition procedure for the prediction of the development of polygenic diseases V.F. Prokof'ev, A.V. Shevchenko, <u>Maksim Korolev</u> , V.I. Konenkov Scientific Institute of clinical and experimental lymphology SB RAS, Novosibirsk, Russia				
16.45– 17.00	The bioinformational comparison of CRISPR/Cas system structure of <i>Yersinia pseudotuberculosis</i> strains isolated from different regions Nadezhda Peretolchina ¹ , Y.P. Dzhioev ^{1,2} , A.Y. Borisenko ¹ , E.A. Voskresenskaya ³ , A.I. Paramonov ² , L.A. Stepanenko ¹ , V.I. Zlobin ¹ ¹ Irkutsk State Medical University, Irkutsk, Russia ² Scientific Center of family health problems and human reproduction, Irkutsk, Russia ³ Institut Pasteur, Saint Petersburg, Russia				
17.00– 17.15	Theoretical model of mitotic spindle microtubule growth for FRAP curve interpretation Leonid Omelyanchuk ^{1,2} , A.F. Munzarova ^{1,2} , T.Y. Mikhailova ² ¹ Institute of Molecular and Cellular Biology, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia				
17.15– 17.30	Computer analysis of biological networks of mammalian circadian oscillator <u>Nikolay Podkolodny</u> ^{1,2,3} , N.N. Tverdokhleba ^{1,3} , E.O. Sambilova ³ , S.A. Lobynya ³ , Z.D. Yakubova ³ , O.A. Podkolodnaya ¹ ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ² Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk ³ Novosibirsk State University, Novosibirsk				
17.30– 17.45	Principal organization of physiological regulator <u>Vyacheslav Fedorov</u>				

	Institute of Laser Physics SB RAS, Novosibirsk, Russia				
17.45– 17.55	Phage infection slows down speciation caused by gene loss and horizontal gene transfer of metabolic genes in models of spatially distributed bacterial communities <u>Aleksandra Klimenko</u> , Yu.G. Matushkin, N.A. Kolchanov, S.A. Lashin Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia				
17.55– 18.05	Crossing valleys and reaching peak on the fitness landscapes in microbial communities under various ecological conditions: a simulation study <u>Zakhar Mustafin</u> ¹ , D.A. Afonnikov ^{1,2} , Yu.G. Matushkin ^{1,2} , S.A. Lashin ^{1,2} ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia				
18.05– 18.15	Role of membrane potential in nitrite utilization by <i>Escherichia Coli</i> cells under low substrate concentrations: the mathematical model <u>Natalya Ree</u> , Likhoshvai V.A., T.M. Khlebodarova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia				
18.15– 18.25	Modeling restriction-modification systems: expressing toxic molecules within a cell <u>Andjela Rodic</u> , M. Djordjevic University of Belgrade, Belgrade, Serbia				
18.25– 18.35	Differential expression in <i>Helix lucorum</i> statocysts under microgravity conditions <u>Alexander Osypov</u> ^{1,2} , P. Kolosov ¹ , N. Aceyev ¹ , E. Chesnokova ¹ , M. Roshchin ¹ , N. Bal ¹ , P. Balaban ¹ ¹ Institute of Higher Nervous Activity and Neurophysiology of RAS, Moscow, Russia, ² Institute of Cell Biophysics of RAS, Pushchino, Russia				
18.35– 18.45	Tumor-specific cell free DNA as a biomarker of metastasis <u>Tatiana Gorbacheva</u> ¹ , S.A. Solodskikh ¹ , V.yu. Bashmakov ¹ , V.Yu. Panevina ¹ , A.Y. Maslov ² , V.N. Popov ¹ ¹ Voronezh State University, Voronezh, Russia ² Albert Einstein College of Medicine of Yeshiva, USA				

31 August

9.00–13.10	<p>Section “Evolutionary Bioinformatics” (<i>House of Scientists SB RAS, Small hall</i>) <i>Chairpersons:</i> Fyodor Kondrashov, Evolutionary Genomics laboratory and ICREA, Barcelona, Spain</p>	9.00–12.50	<p>Section “Animal Genetics” <i>(House of Scientists SB RAS, Library)</i> <i>Chairperson:</i> Mikhail Moshkin, ICG SB RAS, Novosibirsk, Russia</p>		
9.00–9.35	<p>Patterns and mechanisms of chromosomal evolution inferred from physically mapped genome assemblies <u>Igor Sharakhov</u>^{1,3,4}, G.N.Artemov⁴, A. Peery¹, X. Jiang³, A.B. Hall³, Z.Tu^{2,3}, A.N. Naumenko¹, V.N. Stegny⁴, M.V. Sharakhova³ ¹Department of Entomology, Virginia Polytechnic Institute and State University, Blacksburg, USA. ²Department of Biochemistry, Virginia Polytechnic Institute and State University, Blacksburg, USA. ³The PhD Program in Genomics Bioinformatics and Computational Biology, Virginia Polytechnic Institute and State University, Blacksburg, USA. ⁴Laboratory of Evolutionary Cytogenetics, Tomsk State University, Tomsk, Russia.</p>	9.00–9.35	<p>The role of functional domains of <i>Drosophila septin Pnut</i> K.A.Akhmetova^{1,2,3}, N.V.Dorogova¹, M.L.Balaso³, Svetlana Fedorova^{1,2}, I.N.Chesnoko³ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³University of Alabama at Birmingham, Birmingham, USA</p>		
9.35–10.00	<p>Evolution of restriction-modification systems in large scale <u>Olga Bezsudnova</u>¹, I.S. Rusinov,^{1,2} A.S. Ershova,^{2,3,4} A.S. Karyagina,^{2,3,4} S.A. Spirin,^{1,2,5} A.V. Alexeevski^{1,2,5} ¹Faculty of Bioengineering and Bioinformatics, Moscow State University, Russia ²Belozersky Institute of Physico-Chemical Biology, Moscow State University, Russia ³Gamaleya Center of Epidemiology and Microbiology, Moscow, Russia ⁴Institute of Agricultural Biotechnology RAS, Moscow, Russia ⁵Scientific Research Institute for System Studies, RAS, Moscow, Russia</p>	9.35–10.00	<p>Virome analysis for identification of viruses in bat species from Moscow region <u>Anna Speranskaya</u>¹, Pimkina E.V.¹, Artyushin I.V.², Safonova M.V.¹, Deviatkin A.A.¹, Kuleshov K.V.¹, Dedkov V.G.¹, Shipulin G.A.¹ ¹Central Research Institute for Epidemiology, Russian Inspectorate for Protection of Consumer Right and Human Welfare, Moscow, Russia ²Biological Faculty, Moscow State University, Moscow, Russia</p>		
10.00–10.25	<p>RNA-Seq data analysis of rats with aggressive behavior in three brain areas <u>Anatoly Bragin</u>, Markel A.L., Babenko V.N., Chadaeva I.V., Tiys E.S., Orlov Y.L. Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>	10.00–10.25	<p>Identification of breed-specific SNP-markers for <i>Sus scrofa domesticus</i> using SRA-data of NGS projects <u>Iosif Tsybovsky</u>, V.N. Kipen, S.A. Kotova Scientific and Practical Centre of the State Committee of Forensic Expertises, Minsk, Belarus</p>		

10.25– 10.50	<p>Long-term spaceflight mediated changes in promoter landscape in Zebrafish tissues <u>Alexander Cherkasov</u>¹, K.V. Arshavsky¹, V.N. Sychev², M.A. Levinskikh², O.A. Gusev^{1,3,4} ¹Institute of Fundamental Biology and Medicine, Kazan Federal University, Kazan, Russia; ²Institute for Biomedical Problems, Russian Academy of Sciences, Moscow, Russia; ³Division of Genomic Technologies, CLST, RIKEN, Yokohama, Japan; ⁴Preventive Medicine & Diagnosis Innovation Program, CLST, RIKEN, Yokohama, Japan</p>	10.25– 10.50	<p>Identification of the taxa of the order <i>Artiodactyla</i> for criminal investigation cases of illegal hunting <u>Iosif Tsybovsky</u>, S.A. Kotova, V.I. Rybakova, A.A. Rabcava, E.A. Spivak Scientific and Practical Centre of the State Committee of Forensic Expertises, Minsk, Belarus</p>		
10.50– 11.10	Coffee break,	10.50– 11.10	Coffee break,		
11.10– 11.35	<p>Darwinian genetic drift <u>Dmitri Parkhomchuk</u>, A.C.McHardy Helmholtz Center for Infection Research, Braunschweig, Germany</p>	11.10– 11.35	<p>The density of <i>Wolbachia</i> strain wMelPop in <i>Drosophila melanogaster</i> brain is inversely related to the level of <i>hsp67bc</i> gene expression <u>Dina Malkeyeva</u>^{1,2}, E.V. Kiseleva¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>		
11.35– 12.00	<p>Sex chromosome evolution in Pamphagidae grasshoppers <u>Ilyas Jetybayev</u>^{1,2}, A.G. Bugrov^{2,3}, O.G. Buleu^{2,3}, A.G. Bogomolov¹, N.B. Rubtsov^{1,3} ¹Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia ²Institute of Systematics and Ecology of Animals, SB RAS, Novosibirsk, Russia ³Novosibirsk State University, Novosibirsk, Russia</p>	11.35– 12.00	<p>Targeted spatial genome modification in topologically associating domains structure in mouse embryonic stem cells <u>Varvara Lukyanchikova</u>, N.R. Battulin, O.L. Serov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>		
12.00– 12.25	<p>Genetic diversity in native Siberian populations: correlation with climatic and geographical parameter <u>Vladimir Kharkov</u>^{1,2}, A.V. Markov^{1,2}, I.Yu. Khitrinskaya¹, V.A. Stepanov^{1,2} ¹Research Institute for Medical Genetics, Tomsk, Russia ²Tomsk State University, Tomsk, Russia</p>	12.00– 12.25	<p>The spatial map of avian genome <u>Veniamin Fishman</u>^{1,2}, N. Battulin^{1,2}, A. Maslova³, O. Serov^{1,2}, A. Krasikova³ ¹Institute of Cytology and Genetics SB RAS, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Saint-Petersburg State University, St. Petersburg, Russia</p>		
12.25–12. 50	<p>Elucidation of molecular signal of transcription response to desiccation stress in chironomid <i>P. vanderplanki</i> <u>Elena Shagimardanova</u>¹, R.M. Deviatyarov¹, T. Kikawada², O.A. Gusev^{1,3}</p>	12.25– 12.50	<p>Ageing of multicellular organisms as a stage of ontogenesis <u>Igor Erokhin</u> National Biotechnological Company LLC, Moscow, Russia</p>		

	Kazan Federal University, Kazan, Russia National Institute of Agrobiological Sciences, Tsukuba, Japan RIKEN, Yokohama, Japan				
	Lunch		Lunch		Lunch
14.00–18.10	Section “Computational Pharmacology” (<i>House of Scientists SB RAS, Small Hall</i>) <i>Chairpersons:</i> Vladimir Poroikov, Institute of Biomedical Chemistry, Moscow, Russia; Elena Schwartz, Elena Schwartz Ami-Go-Science LLC, Rockville, MD United States	14.00–18.10	Section “Systems Biology of Aging” (<i>House of Scientists SB RAS, Library</i>) <i>Chairpersons:</i> Vladimir Anisimov, President of Gerontological society of the Russian Academy of Sciences, N.N. Petrov Research Institute of Oncology, Saint-Petersburg, Russia; Alexey Moskalev, Institute of Biology, Komi Science Centre; Natalya Kolosova, Institute of Cytology and Genetics of SB RAS	14.00–18.45	Section “Bioinformatics and Molecular Biology of DNA Damage Response” (<i>House of Scientists SB RAS, Room 223</i>) <i>Chairpersons:</i> Grigory Dianov, University of Oxford, United Kindom & Institute of Cytology & Genetics, Novosibirsk, Russia
14.00–14.35	Infant nasopharyngeal microbiome in respiratory syncytial virus cohort—a case study in developing and applying "Do It Yourself analysis tools" for the bench scientists Andrey Tovchigrechko Research Bioinformatics, Medimmune LLC, Gaithersburg, MD United States	14:00-14:25	Systemic role of allelic variants in a 2q22 region in major age-related diseases and lifespan Alexander Kulminski, L. He, I. Culminskaya, Y. Loika, Y. Kernogitski, K.G. Arbeev, E. Loiko, L. Arbeeveva, O. Bagley, M. Duan, A. Yashkin, F. Fang, M. Kovtun, S.V. Ukrainitseva, D. Wu, A.I. Yashin Duke University, Durham, USA	14:00-14:15	Base excision repair mechanisms. Introduction. <u>Grigory Dianov</u> University of Oxford, United Kindom; Institute of Cytology and Genetics, Novosibirsk, Russia
14.35–15.00	Disease models for cancer to select candidate biomarkers and drug target <u>Elena Schwartz</u> ¹ , Anton Yuryev ² , Che Ross ³ , Irene Riz ⁴ and Alexandra McPherron ¹ . ¹ Ami-Go-Science, 5917 Barbados Place, Rockville MD, USA ² Elsevier, Rockville, MD, USA; ³ Johns Hopkins University, Baltimore, MD, USA ⁴ George Washington University, Washington DC, USA	14:25-14:50	Neuronal transcriptional regulation of <i>Drosophila</i> life span O. Y. Rybina ^{1,2} , A. V. Symonenko ¹ , N. V. Roshina ¹ , A. V. Kremtsova ^{1,3} , E. R. Veselkina ¹ , M.I. Schelkunov ⁴ , S. V. Sarantseva ⁵ , <u>Elena Pasyukova</u> ¹ ¹ Institute of Molecular Genetics of RAS, Moscow, Russia ² Moscow State Pedagogical University, Institute of Biology and Chemistry, Russia ³ N. M. Emmanuel Institute of Biochemical Physics of RAS, Moscow, Russia ⁴ M. V. Lomonosov Moscow State University, Russia ⁵ B. P. Konstantinov Petersburg Nuclear Physics Institute, Russia	14:15-14:45	Regulation of base excision repair-canonical and non-canonical processing of genomic uracil <u>Hans Krokan</u> , H.S. Pettersen, R. Mjelle, S.A. Hegre, P. Sætrom, F. Drabløs, A. Sarno, A. Galashevskaya, P.A. Aas, N.B. Liabakk, B. Doseith, G. Slupphaug, B. Kavli Norwegian University of Science and Technology, Trondheim, Norway
15.00–15.25	<i>In silico</i> screening for sulfonate-based inhibitors against promising anticancer targets <u>Dmitry Nilov</u> ^{1*} , I.V. Gushchina ² , V.K. Švedas ^{1,2}	14:50–15.15	Comparative expression landscapes in replicative and stress induced premature senescence	14:45-15:15	Poly(ADP-ribose) polymerase 1 and regulation of DNA repair <u>Olga Lavrik</u>

	<p>¹Belozersky Institute of Physicochemical Biology, Lomonosov Moscow State University, Moscow, Russia ²Faculty of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow, Russia</p>		<p>K.C. Kural¹, N. Tandon², O.V. Kel-Margoulis², <u>Anna Baranova</u>^{1,3,4} ¹School of Systems Biology, George Mason University, Fairfax, VA USA ²geneXplain, Wolfenbüttel Germany ³Federal State Budgetary Institution "Research Centre for Medical Genetics," Moscow, Russia ⁴ATLAS Biomed Group, Moscow, Russia</p>		<p>Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia Novosibirsk State University, Novosibirsk, Russia</p>
15.25–15.50	<p>Identification of proteins associated with drug-induced liver injury using in silico prediction of drug-target interactions <u>Sergey Ivanov</u>^{1,2*}, M.I. Semin^{1,2}, A.A. Lagunin^{1,2}, D.A. Filimonov¹, V.V. Poroikov^{1,2} ¹Institute of Biomedical Chemistry, Moscow, Russia ²Pirogov Russian National Research Medical University, Medico-Biological Faculty, Moscow, Russia</p>	15.15–15.35	<p>Changes in the brain transcriptome of OXYS rats as the signs of Alzheimer's disease develop and effects of SkQ1 Natalia Stefanova, N.I. Ershov, N.A. Muraleva, N.G. Kolosova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>	15:15-15:45	<p>Speed reading at the molecular scale: how enzymes find typos in a DNA text <u>Dmitrij Zharkov</u>, Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>
15.50–16.10	<p>Coffee break</p>	15.35–15:50	<p>The mitochondria-targeted plastoquinone SkQ1 affects <i>Drosophila melanogaster</i> lifespan in various environment <u>Anna Kremetsova</u>¹, N. V. Roshina², E. A. Tsybulko², O. Y. Rybina², A. V. Symonenko², E. G. Pasyukova² ¹Emmanuel Institute of Biochemical Physics of RAS, Moscow, Russia ²Institute of Molecular Genetics of RAS, Moscow, Russia</p>	15:45-16:10	<p>Coffee break</p>
16.10–16.35	<p>Computer-aided drug repurposing: new uses for old drugs or filling gaps in biomedical knowledge? <u>Vladimir Poroikov</u>, D.A. Filimonov, A.A. Lagunin, T.A. Glorizova Institute of Biomedical Chemistry, Moscow, Russia</p>	15.50-16.10	<p>Coffee break</p>	16:10-16:30	<p>Ku antigen displays the apurinic/aprimidinic (AP) lyase activity on a certain types of duplex DNA <u>Anastasiya Kosova</u>, S.N. Khodyreva, O.I. Lavrik Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>
16.35–17.00	<p>In silico design of aptamers containing g-quadruplexes <u>Arthur Zalevsky</u>^{1,2}, A.O. Demkiv², A.V. Golovin^{1,2} ¹Apto-Pharm LLC, Moscow, Russia ²Faculty of bioengineering and bioinformatics, Lomonosov Moscow State University, Moscow, Russia</p>	16:10–16.35	<p>Geroprotector and criteria for its evaluation <u>Alexey Moskalev</u>¹⁻⁴, M. Shaposhnikov^{1,2}, E. Proshkina^{1,2}, V. Tsvetkov⁴, A. Fedintsev⁴, E. Chernyagina⁴, A. Zhavironkov⁴ ¹Institute of Biology of Komi Science Center of Ural Branch of RAS, Syktyvkar, Russia ²Syktyvkar State University, Syktyvkar, Russia ³Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia</p>	16:30-17:00	<p>Structural bioinformatics of Fpg glycosylase: search for substrate specificity in the sequence space <u>Anna Yudkina</u> Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>

			⁴ Moscow Institute of Physics and Technology, Dolgoprudny, Russia	
17.00–17.25	Molecular modeling of influenza virus H1N1 hemagglutinin inhibition by camphor imines <u>Dmitry Baev</u> , A.S. Sokolova, O.I. Yarovaya, T.G. Tolstikova, V.V. Zarubaev N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia	16.35–17.00	Perspectives for the prevention of accelerated aging <u>Vladimir Anisimov</u> Department of Carcinogenesis and Oncogerontology, N.N. Petrov Research Institute of Oncology, Saint Petersburg, Russia	17:00-17:30 DNA repair and death signalling targeted by alkylating anticancer drugs Bernd Kaina Department of Toxicology, University Medical Center, Mainz, Germany
17.25–17.50	Small molecule agonists of relaxin receptor <u>Alexander Agoulnik</u> ¹ , I.U. Agoulnik ¹ , X. Hu ² , C. Myhr ¹ , Z. Huang ¹ , B.A. Ho ¹ , E. Barnaeva ² , J. Xiao ² , M. Ferrer ² , N.T. Southall ² , J.J. Marugan ² ¹ Herbert Wertheim College of Medicine, Florida International University, Miami, FL, USA; ² NIH Chemical Genomics Center, National Center for Advancing Translational Sciences, National Institutes of Health, Rockville, MD, USA	17.00–17.25	Systems biology, control theory and origin of aging <u>Alexander Khalyavkin</u> , V.N. Krut'ko Institute of Biochemical Physics of RAS and FRC CSC RAS, Moscow, Russia	17:30-18:00 Modulation of cognitive function by oxidative DNA base lesion repair K. Scheffler ² , V. Rolseth ¹ , M.D. Bjørge ¹ , G. Hildrestrand ¹ , W. Wang ² , R. Suganthan ² , A. Kusnierczyk ² , Ch. Neurauter ¹ , H. Korvald ¹ , C. Vågbø ² , L. Luna ¹ , G. Slupphaug ² , L. Eide ² , <u>Magnar Bjørås</u> ^{1,2} ¹ Department of Microbiology, University of Oslo and Oslo University Hospital, Oslo, Norway. ² Department Cancer Research and Molecular Medicine, Norwegian University of Technology and Natural Sciences, Trondheim, Norway.
17.50–18.10	The impact of human genetic variability on ligand-protein interactions and individual drug response <u>Peter Vlasov</u> , O. Pich i Rosello, A.V. Vlasova, F.A. Kondrashov Centre for Genomic Regulation; Universitat Pompeu Fabra; Institució Catalana de Recerca i Estudis Avançats, Barcelona, Spain	17.25–17.50	The role of the mechanisms of resistance to ionizing radiation in <i>Drosophila melanogaster</i> aging and longevity Mikhail Shaposhnikov ^{1,2} , E.N. Proshkina ^{1,2} , L.A. Shilova ¹ , D.O. Peregudova ¹ , S.O. Zhikrivetskaya ³ , A.A. Moskalev ¹⁻⁴ ¹ Institute of Biology of Komi Science Center of Ural Branch of RAS, Syktyvkar, Russia ² Syktyvkar State University, Syktyvkar, Russia ³ Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia ⁴ Moscow Institute of Physics and Technology, Dolgoprudny, Russia	18:00-18:20 DNA damage initiating demethylation: a repair-epigenetic connection <u>Inga Grin</u> ^{1,2} , A.A. Ishchenko ³ ¹ Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia ³ CNRS UMR 8200, Gustave Roussy Cancer Campus, Villejuif, France
				18:20-18:30 Systemic response to genetic and chemical modulation of DDR regulating wild type p53 induced phosphatase in skin, intestine and hematopoietic system A.R. Goloudina ² , B.B. Grigorash ¹ , E.Y. Kochetkova ¹ , E. Appella ³ , V.A. Pospelov ¹ , <u>Oleg Demidov</u> ^{1,2}

					¹ Institute of Cytology RAS, St. Petersburg, Russia ² University of Burgundy, France ³ NCI, NIH, Bethesda, USA
				18:30-18:45	The functional interactions of pleiotropic protein yb-1 with key base excision repair factors Elizaveta Alemasova ¹ , N.A. Moor ¹ , K.N. Naumenko ^{1,2} , P.E. Pestryakov ¹ , O.I. Lavrik ^{1,2} ¹ Institute of Chemical Biology and Fundamental Medicine SB RAS, Russia ² Novosibirsk State University, Novosibirsk, 630090, Russia
1 September					
9.00–13.10	Section “Bioinformatics and Systems Biology of Plants” <i>(House of Scientists SB RAS, Small hall)</i> Chairpersons: Elena Salina, Institute of Cytology and Genetics of SB RAS; Ivan Paponov, Norwegian Research Institute for Agriculture and the Environment, Norway	9:00–11.00	Section “Evolutionary Bioinformatics” <i>(House of Scientists SB RAS, Small hall)</i> Chairpersons: Fyodor Kondrashov, Evolutionary Genomics laboratory and ICREA, Barcelona, Spain		
9.00–9.20	Dynamic metabolic regulation by a chromosome segment from a wild species during fruit development in a tomato introgression line <u>Yoshinori Kanayama</u> School of Agricultural Science, Tohoku University, Sendai, Japan	9.00–9.25	Can long antiparallel open reading frames be encoding essential genes in prokaryotic genomes? <u>Denis Moshenskij, A.V. Alexeevski</u> A.N. Belozersky Institute of Physico-Chemical Biology MSU, Moscow, Russia		
9.20–9.40	New insights into the regulation of reactive oxygen species by auxin through gene expression analysis Ivan Paponov ^{1,2*} , V. Budnyk ¹ , T. Khodus ¹ , M. Paponov ¹ , K. Palme ¹ ¹ Institute of Biology II/Molecular Plant Physiology, Faculty of Biology, Albert-Ludwigs-University of Freiburg, Germany ² NIBIO, Norwegian Institute of Bioeconomy Research, Postvegen, Norway	9.25–9.50	Intron evolution: sliding and variability of length <u>Irina Poverennaya¹, D.D. Gorev², T.V. Astakhova³, M.A. Roytberg^{2,3}.</u> ¹ Faculty of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow, Russia; ² Moscow Institute of Physics and Technology, Moscow, Russia; ³ Institute of Mathematical Problems of Biology RAS, Pushchino, Russia		

9.40–10.00	<p>Genetics and physiology of wheat inflorescence development Oxana Dobrovolskaya^{1,5}, P. Martinek², Yu.L. Orlov¹, A.A. Krasnikov³, E.D. Badaeva⁴, K.I. Popova⁵, Salse J.⁶, Watanabe.N.⁷ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Agrotest Fyto, Ltd, Kroměříž, Czech Republic ³Central Siberian Botanical Garden SB RAS, Novosibirsk, Russia ⁴Vavilov Institute of General Genetics , RAS, Moscow, Russia ⁵Novosibirsk State Agrarian University, Novosibirsk, Russia ⁶INRA-UBP UMR-1095, Clermont –Ferrand, France ⁷College of Agriculture, Ibaraki University, Ibaraki, Japan</p>	9.50–10.15	<p>Phylogenetic analysis of DAHPS II type amino acid sequences Anastasia Semashko, E.G. Veremeenko, N.P. Maksimova Belarusian State University, Minsk, Belarus</p>		
10.00–10.20	<p><i>Nicotiana</i> genomics: from plants to genomes N. Sierro, J.N.D. Battey, S. Ouadi, N. Bakaher, L. Bovet, A. Willig, S. Goepfert, M.C. Peitsch, <u>Nikolai Ivanov</u> Philip Morris International R&D, Philip Morris Products S.A., Switzerland</p>	10.15–10.40	<p>The evolution of language-readiness in the hominin lineage: an analysis of open chromatin regions implicated in gene regulation Konstantin Gunbin¹, A. Benítez-Burraco², F. Gusev¹, E. Rogaev^{1,3} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Department of Philology, University of Huelva, Huelva, Spain ³University of Massachusetts Medical School, Worcester, USA</p>		
10.20–10.35	<p>A spatial model of plant interactome and long non-coding RNA Hongjun Chen, Jitong Xue, <u>Ming Chen</u> Zhejiang University, Hangzhou, China</p>				
10.35–10.50	<p>Computer simulation of trichome patterning on growing wheat leaf taking into account the biomechanics of cells Ulyana Zubairova¹, S.V. Nikolaev¹, A.V. Penenko², N.L. Podkolodnyy¹, S.K. Golushko³, D.A. Afonnikov¹, and N.A. Kolchanov¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia ³Design and Technology Institute of Digital Techniques SB RAS, Novosibirsk, Russia</p>				
10.50–11.10	Coffee break				

11.10– 11.30	<p>Nucleotide diversity analysis highlights functionally important genomic regions <u>Tatiana Tatarinova</u>^{1,2}, E. Chekalin³, Y. Nikolsky^{3,4,5}, S. Bruskin³, D. Chebotarov⁶, K.L. McNally⁶, N. Alexandrov⁶ ¹Center for Personalized Medicine and Spatial Sciences Institute, University of Southern California, Los Angeles, CA, USA ²Kharkevich Institute for Information Transmission Problems, Russian Academy of Sciences, Moscow, Russian Federation ³Vavilov Institute of General Genetics, Moscow, Russia ⁴F1 Genomics, San Diego, CA, USA ⁵School of Systems Biology, George Mason University, VA, USA ⁶International Rice Research Institute, Los Baños, Philippines</p>				
11.30– 11.50	<p>Sleep of reason in the analysis of the results of research on materials «Proteomic information ofspring wheat varieties differing in resistance to infection after <i>Puccinia recondita</i> inoculation» <u>Kanat Sarsenbayev</u>, A. Sarsenbayeva L.N. Gumilyov Eurasian National University, Astana, Kazakhstan</p>				
11.50– 12.10	<p>Study of <i>Armillaria borealis</i> pathogenicity by the comparative whole genome sequencing <u>Yuliya Putintseva</u>^{1,2}, I.N. Pavlov^{1,2}, N.V. Oreshkova^{1,2}, V.V. Sharov¹, D.A. Kuzmin¹, S.V. Makolov¹, K.V. Krutovsky^{1,3,4,5} ¹Siberian Federal University, Krasnoyarsk, Russia ²V.N. Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia ³Georg-August University of Göttingen, Göttingen, Germany ⁴N.I. Vavilov Institute of General Genetics, RAS, Moscow, Russia ⁵Texas A&M University, College Station, USA</p>				
12.10– 12.30	<p>Transcriptomic analysis of wheat root in response to essential nutrient deficiency: a genome-wide comparative study <u>Saurabh Gupta</u>¹, B.S. Yadav², S. Freilich³, V.P. Kumar¹ ¹Department of Bioinformatics, Indian Institute of Information Technology-Allahabad, India ²Department of Molecular Biology and Ecology of Plants, Tel Aviv University, Israel</p>				

	³ Systems Biology and Ecology ARO- Volcani Center- Bet-Dagan, Israel				
12.30– 12.50	Monotropa hypopitys whole genome and transcriptome sequencing data Elena Kochieva, E.V. Gruzdev, A.V. Beletsky, A.M. Mazur, A.V. Shchennikova, O.V. Shulga, M.A. Filyushin, V.V. Kadnikov, A.V. Mardanov, N.V. Ravin, K.G. Skryabin Institute of Bioengineering, Research Center of Biotechnology RAS, Moscow, Russia				
12.50– 13.10	3D map of proliferation activity in Arabidopsis thaliana root tips: transition domain boundaries and its bilateral symmetry Viktoriya Lavrekha ^{1,2} , T. Pasternak ³ , N.A. Omelyanchuk ^{1,2} , V.B. Ivanov ⁴ , V.V. Mironova ^{1,2} ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk,, Russia ² LCTEB, Novosibirsk State University, Novosibirsk, Russia ³ Institute of Biology II/Molecular Plant Physiology, Centre for BioSystems Analysis, BIOS Centre for Biological Signalling Studies University of Freiburg, Germany ⁴ Timiryazev Institute of Plant Physiology, Russian Academy of Sciences Moscow, Russia				
	Lunch				
14.00– 18.35	Section Section “Proteomics” (House of Scientists SB RAS, Small hall) <i>Chairpersons:</i> Andrey Lisitsa, IBMC, Moscow, Russia; Sergey Peltek, ICG SB RAS, Novosibirsk, Russia		2 nd IC&G SB RAS – Tohoku University Open Joint Seminar on Education and Research in High-Tech for Plant Production Opening Alexey Kochetov, Yoshinori Kanayama		
14.00– 14.35	Nonthermal impact terahertz radiation on the living systems I.A. Mescheryakova ¹ , E.V. Demidova ¹ , T.N. Goryachkovskaya ¹ , E.A. Demidov ¹ , A.V. Bryanskaya ¹ , S.V. Sergeeva ¹ , S.L. Kiselev ³ , M.A. Lagarkova ³ , G.N. Kulipanov ² , A.I. Semenov ² , N.A. Vinokurov ² , N.A. Kolchanov ¹ , V.M. Popik ² , <u>Sergey Peltek</u> ¹ ¹ The Institute of Cytology and Genetics The Siberian Branch of the Russian Academy of Sciences ² Budker Institute of Nuclear Physics the Siberian Branch of the Russian Academy of Sciences ³ Vavilov Institute of General Genetics, RAS, Moscow		Technological progress in Japanese horticultural production and its academic aspects Yoshinori Kanayama		

14.35– 15.00	<p>Impact of 105-day isolation conditions on proteins expressed in endothelial cells, in the framework of the «Mars-500» project L.H. Pastushkova¹, D.N. Kashirina¹, A.S. Kononikhin^{1,3}, <u>Alexander Brzhozovsky</u>¹ A.G., ¹Dobrokhotov I.V., ²Tiys E.S., ²Ivanisenko V.A., ³Nikolaev E.N., ¹Larina I.M. ¹State scientific center of Russian Federation – Institute for biomedical problems RAS, Moscow, Russia ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ³Emanuel Institute of Biochemical Physics RAS, Moscow, Russia</p>		<p>Transgenic plants as genetic models Alexey Kochetov</p>		
15.00– 15.25	<p>Kynurenic acid-sensitized photolysis of lens proteins under anaerobic conditions <u>Ekaterina Sormacheva</u>¹, P.S. Sherin^{1,2}, E.A. Zelentsova^{1,2}, T.G. Duzhak^{1,2}, Yu.P. Tsentlovich^{1,2}, R.Z. Sagdeev^{1,2} ¹International Tomography Center SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>		<p>Roles of pathogenesis related-10 proteins in biotic and abiotic stresses in comparison with heterologous ribonucleases Ekaterina Trifonova</p>		
15.25– 15.50	<p>Looking for proteomic markers of breast cancer in blood exosomes <u>Oleg Tutanov</u>¹, S.N. Tamkovich¹, Y.S. Bakakina², L.V. Dubovskaya², Y.P. Tsentlovich³, I.D. Volotovskiy², P.P. Laktionov¹ ¹Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia ²Institute of biophysics and cellular engineers NASB, Minsk, Byelorussia ³Institute “International Tomographic Center” SB RAS, Novosibirsk, Russia</p>		<p>Towards the reference sequence of chromosome 5B of common wheat Elena Salina</p> <p>Inflorescence architecture in wheat Oxana Dobrovolskaya</p>		
15.50– 16.10	Coffee break				
16.10– 16.35	<p>Microbial community of the oil site of the Uzon Caldera (Kamchatka) S.E. Peltek¹, <u>Alla Bryanskaya</u>¹, Y.E. Uvarova¹, A.S. Rozanov¹, T.V. Ivanisenko¹, T.K. Malup¹, V.A. Ivanisenko¹, E.V. Lazareva², O.V. Saik¹, S.M. Zhmodik², O.P. Taran³, N.M. Slynko¹, S.V. Shekhovtsov¹, V.N. Parmon³, N.L. Dobretsov², N.A. Kolchanov¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²V S Sobolev Institute of Geology and Mineralogy SB RAS, Novosibirsk, Russia</p>		<p>Synthesis and accumulation of a novel functional food component in tomato Ayaka Ito</p>		

	³ Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia				
16.35–17.00	<p>Proteomic screening for amyloid-forming proteins in bacteria <i>Escherichia coli</i> Anton Nizhnikov^{1,2,3*}, K.S. Antonets^{1,2}, K.V. Volkov¹, A.L. Maltseva¹, A.P. Galkin^{1,2} ¹St. Petersburg State University, Universitetskaya nab., 7-9, St. Petersburg 199034, Russian Federation ²Vavilov Institute of General Genetics (St. Petersburg Branch), Universitetskaya nab., 7-9, St. Petersburg 199034, Russian Federation ³All-Russian Research Institute for Agricultural Microbiology, Podbelskogo sh., 3, Pushkin, St. Petersburg 196608, Russian Federation</p>		<p>Physiological and transcriptional changes in a blossom-end rot resistant tomato introgression line IL8-3 fruit Tomoki Shibuya</p>		
17.00–17.15	<p>Actual approaches for qualification and quantification of proteome changes Eugeny Vrzheschch Bio-Rad, Moscow, Russia</p>		<p>Study on the regulation of cell division during early fruit development in tomato Hideki Nariyama</p>		
17.15–17.40	<p>Prediction of structural properties of uncharacterized proteins from their post-cleavage mass spectra by a multivariate statistical model Oleg Markelov¹, A.R. Kayumov², M.I. Bogachev¹ ¹St. Petersburg Electrotechnical University, St. Petersburg, Russia ²Kazan (Volga region) Federal University, Kazan, Russia</p>		<p>VIGS-mediated resistance to crown gall disease Pavel Nikulin</p>		
17.40–18.05	<p>Coupled molecular dynamic and continuum electrostatic method to compute ionization of proteins as a function of pH Yury Vorobjev Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>		<p>Membrane-associated kinase regulators of MAKR family genes in <i>Arabidopsis thaliana</i> L. Daria Novikova</p>		
			<p>Plant delta-OAT gene expression in ontogenesis and stress response. Anastasiya Egorova</p>		
			<p>Functional and structural characterisation of PPD-B1 photoperiod insensitive allele Antonina Kiseleva</p>		
			<p>Phage-producing plants as models for expression of heterologous replicons Anna Nazarenko</p>		

2 September

9:00–17.00	<p>Section “Genomics, Transcriptomics and Bioinformatics” (<i>House of Scientists SB RAS, Small hall</i>)</p> <p><i>Chairpersons:</i> Ivo Grosse, Halle-Wittenberg University, Halle, Germany; Vsevolod Makeev, VIGG RAS, MIPT, Moscow, Russia</p>				
9:00–9.15	<p>Sequencing from Roche: what the future will bring for you?</p> <p><u>Irina Karpova</u> LCC “Roche Diagnostics Rus”, Moscow, Russia</p>				
9.15–9.30	<p>Whole genome of the woolly mammoth: evolution through millenia</p> <p><u>Artem Nedoluzhko</u>^{1,*}, A.S. Sokolov², F.S. Sharko², E.S. Boulygina¹, S.V. Tsygankova¹, A.N. Tikhonov³, K.G. Skryabin^{1,2,4}, E.B. Prokhortchouk^{2,4}</p> <p>¹National Research Center “Kurchatov Institute”, Kurchatov sq. 1, 123182 Moscow, Russia. ²Institute of Bioengineering, Research Center of Biotechnology of the Russian Academy of Sciences, 60-letiya Oktyabrya av. 7-1, 117312 Moscow, Russia. ³Zoological Institute, Russian Academy of Sciences, Universitetskaya Naberezhnaya 1, 199034 Saint Petersburg, Russia ⁴Lomonosov Moscow State University, Faculty of Biology 1-12 Leninskie Gory, 119991 Moscow, Russia</p>				
9.30–9.45	<p>Opisthorchiidae triad: comparative genomics of the carcinogenic liver flukes using a draft genome of <i>Opisthorchis felineus</i></p> <p>N. Ershov^{1*}, G. Fan^{2,3}, E. Prokhortchouk⁴, V. Solovyev⁵, <u>Dmitry Afonnikov</u>^{1,6}, H. Yang², V. Mordvinov¹, X. Liu², K. Skryabin^{4,7} and The Opisthorchis Genome Consortium</p> <p>¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²BGI-Shenzhen, Shenzhen, China. ³State Key Laboratory of Quality Research in Chinese Medicine, Institute of Chinese Medical Sciences, University of Macau, Macao, China. ⁴Russian Federal Research Center for Biotechnology, Moscow, Russia ⁵Softberry Inc., Mount Kisco, NY, US ⁶Novosibirsk State University, Novosibirsk, Russia</p>				

	⁷ National Research Centre, Kurchatov Institute, Moscow, Russia				
9.45–10:00	Genome of black garden ant: defense against virus invasion? E.A. Konorov, Victoria Scobeyeva , M.A. Nikitin, S.N. Lysenkov, S. Nuzhdin Moscow State University, Moscow, Russia				
10:00–10:15	In silico mouse chromocenters content Dmitrii Ostromyshenskii , A.S. Komissarov, I.S. Kuznetsova, O.I. Podgornaya Institute of Cytology RAS, St. Petersburg, Russia				
10:15–10:30	Transcriptome wide prediction of lncRNA-RNA interactions by a thermodynamics algorithm Ivan Antonov , M.A. Zamkova, A.V. Marakhonov, M.Y. Skoblov, Y.A. Medvedeva Research Center of Biotechnology RAS, Moscow, Russia				
10:30–11:00	Energy metabolic dysfunction in tumor cells, molecular mechanisms and clinical significance Anna Kudryavtseva ^{1,2} , A.A. Dmitriev ¹ , O.L. Kardymon ¹ , A.S. Zasedatelev ¹ , G.S. Krasnov ¹ , A.V. Snezhkina ¹ ¹ Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia. ² Herzen Moscow Cancer Research Institute, Ministry of Health of the Russian Federation, Moscow, Russia.				
11.00–11.20	Coffee break				
11.20–11.50	GeneQuery: globally connected networks of GEO transcriptional profiles show hypothesis generation potential and reveal that tocopherols rescue TREM2-associated microglial dysfunction Aleksandr Predeus ^{1,2*} , T. Ulland ¹ , Y. Wang ¹ , V. Lampropoulou ¹ , W. Song ¹ , I. Arbuzov ³ , F. Towfic ⁴ , S. Gilfilan ¹ , E. Loginicheva ¹ , B.T. Edelson ¹ , B. Zeskind ⁴ , M. Colonna ¹ , M.N. Artyomov ¹ ¹ Washington University School of Medicine, St. Louis, MO, USA ² Bioinformatics institute, Saint Petersburg, Russia ³ TMO University, Saint Petersburg, Russia. ⁴ Immuneering Corporation, Cambridge, MA, USA				
11.50–12.05	Genome-wide transcriptomics as a platform for understanding the unusual resistance to muscle atrophy in hibernating dormice				

	<p>Guzel Gazizova^{1*}, O.V. Tyapkina², O.S. Kozlova¹, M.D. Logacheva^{1,3}, L.F. Nurullin², I.M. Vikhlyantsev⁴, O.A. Gusev^{1,5}</p> <p>¹Kazan Federal University, Kazan, Russia; ²Kazan Institute of Biochemistry and Biophysics KSC RAS, Kazan, Russia; ³Lomonosov Moscow State University, Moscow, Russia; ⁴Institute of Theoretical and Experimental Biophysics RAS, Puschino, Russia; ⁵RIKEN, Yokohama, Japan</p>				
12.05–12.35	<p>The first edition of mutagenesis by CRISPR/Cas in the extreme desiccation tolerant cultured cell.</p> <p>Takahiro Kikawada^{1,2}, Y. Miyata^{1,3}, Y. Sogame^{1,4}, T. Furusawa¹, S. Kikuta⁵, R. Cornette¹, O. Gusev^{6,7}</p> <p>¹Institute of Agrobiological Sciences, NARO, Japan ²Department of Integrated Biosciences, Graduate School of Frontier Sciences, The University of Tokyo, Japan ³Center for Biological Resources and Informatics, Tokyo Institute of Technology, 4. JSPS Research Fellow, 5. Graduate School of Bio-Applications and Systems Engineering, Tokyo University of Agriculture and Technology, Tokyo, Japan, 6. Institute of Fundamental Medicine and Biology, Kazan Federal University, Russia, 7. Preventive Medicine & Diagnosis Innovation Program (PMI), RIKEN, Japan</p>				
12.35–13.05	<p>miRNA binding sites in the mRNA of human titin gene</p> <p>Ilya Pinsky¹, A.T. Ivashchenko¹, S.B. Labeit²</p> <p>¹Al-Farabi Kazakh National University, Almaty, Kazakhstan ²Institute of Integrative Pathophysiology, Mannheim, Germany</p>				
13.05-14:00	Lunch				
14:00-16:00	Expert-analytical evaluation of promising research directions in bioinformatics and systems biology				
16:00-16:30	Closing				

Poster

«Animal Genetics»	<p>Denovo assembly of nuclear genome of the smallest insect <i>Megaphragma amalphanum</i> (hymenoptera: Trichogrammatidae) A.S. Sokolov¹, A.V. Nedoluzhko², F.S. Sharko¹, E.S. Boulygina², S.V. Tsygankova², A.M. Mazur¹, A.A. Polilov³, E.B. Prokhortchouk^{1,2}, K.G. Skryabin^{1,2,3} ¹Federal Research Centre «Fundamentals of Biotechnology» of the RAS ²National Research Centre “Kurchatov Institute” ³Faculty of Biology, Lomonosov Moscow State University</p>
	<p>Genetic and molecular mechanisms crucial for hypertension development in the ISIAH rats O.E. Redina¹, L.O. Klimov¹, M.A. Ryazanova¹, L.A. Fedoseeva¹, T.O. Abramova¹, Yu.V. Alexandrovich¹, S.E. Smolenskaya¹, Ye.V. Antonov¹, N.I. Ershov¹, V.M. Efimov^{1,2}, A.L. Marke^{1,2} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Divergence of paralogous growth hormone genes in salmonids D.N. Kamenskaya¹, M.V. Pankova², D.M. Atopkin^{2,3}, V.A. Brykov^{1,2} ¹A.V. Zhirumsky Institute of Marine Biology, FEB RAS, Vladivostok, Russia ²Far Eastern Federal University, School of Natural Sciences, Vladivostok, Russia ³Institute of Biology and Soil Science, FEB RAS, Vladivostok, Russia</p>
	<p>Incongruent nuclear and mitochondrial genetic structure in baikalian amphipods <i>Gmelinoides fasciatus</i> M.V. Kovalenkova, Zh.V. Petunina, D.Yu. Sherbakov Limnological Institute SB RAS, Irkutsk, Russia</p>
	<p>A functional analysis of septin proteins in <i>Drosophila melanogaster</i> S2 cells A.L. Alekseeva^{1,2*}, E.N. Andreyeva¹, L.A. Yarinich¹, A.V. Pindyurin^{1,3}, S.A. Fedorova³ ¹Institute of Molecular and Cellular Biology SB RAS, Novosibirsk, Russia ²Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia ³Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>Identification of sturgeon species with mtDNA and microsatellite markers in Belarus A.Yu. Nosova The Institute of Genetics and Cytology of the NAS of Belarus, Minsk</p>
«Evolution»	<p>Poxviral chemokine-binding proteins: theoretical study of structure and function evolution D.V. Antonets¹, K.V. Gunbin², Nepomnyashchikh T.S.¹ ¹State Research Center of Virology and Biotechnology “Vector”, Novosibirsk, Russia ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>A software system for simulating social and genetic aspects of deafness in human populations I.S. Dyachenko^{1,2}, O.L. Posukh^{1,2}, M.S. Bady-Khoo¹, M.V. Zytsar^{1,2}, V.Yu. Mikhalskaia^{1,2}, G.P. Romanov³, N.A. Barashkov^{3,4}, Yu.G. Matushkin^{1,2}, S.A. Lashin^{1,2} ¹Federal Research Center Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Institute of Natural Sciences, North-Eastern Federal University, Yakutsk, Russia ⁴Yakut Scientific Center of Complex Medical Problems, Yakutsk, Russia</p>
	<p>Adaptation and biological time V.V. Suslov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>

	<p>Vavilov's homologous series as evolutionary force V.V. Suslov, M.P. Ponomarenko, D.A. Rasskazov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>The interaction between anaerobic respiratory complex ii and the flagellar motor A. Koganitsky¹, T. Dadosh², V. Kiss¹, M. Eisenbach¹ ¹Biomolecular Sciences, Weizmann Institute of Science, Rehovot, Israel ²Chemical Research Support, Weizmann Institute of Science, Rehovot, Israel</p>
	<p>Ribosomal genes as phylogenetic markers for studying evolution of blue-flowered flaxes N. L. Bolsheva¹, N. V. Melnikova¹, A. A. Dmitriev¹, M. S. Belenikin^{1,2}, A. S. Speranskaya², A. A. Krinitsina², G. S. Krasnov¹, V. A. Lakunina¹, A. V. Snezhkina¹, A. F. Sadritdinova¹, T. A. Rozhmina³, A. V. Amosova¹, T. E. Samatadze¹, O. Yu. Yurkevich¹, N. G. Shostak¹, S. A. Zoshchuk¹, A. V. Kudryavtseva¹, O. V. Muravenko¹ ¹Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia ²Department of Higher Plants, Lomonosov Moscow State University, Moscow, Russia ³All-Russian Research Institute for Flax, Torzhok, Russia</p>
	<p>Stochastic model of speciation, which describes the evolutionary branching process within the species flock in a closed ecosystem Yu.S. Bukin^{1,2}, D.Yu. Sherbakov^{1,3} ¹Limnological Institute SB RAS, Irkutsk, Russia ²Irkutsk State Technical University, Irkutsk, Russia ³Irkutsk State University, Irkutsk, Russia</p>
	<p>Evolution of mitochondrial genomes in Baikalian amphipods E.V. Romanova¹, V.V. Aleoshin², K.V. Mikhailov², R. M. Kamaltynov¹, M. D. Logacheva², E.A. Sirotinina¹, D.Yu. Sherbakov^{1,3} ¹Limnological Institute SB RAS, Irkutsk, 664033, Russia ²A.N. Belozersky Institute of Physicochemical Biology MSU, Moscow, 119991, Russia ³Irkutsk State University, Irkutsk, 664003, Russia</p>
	<p>Evolution features of the three codon positions in gene of envelop protein e for different genotypes of the tick-borne encephalitis virus Yu.S. Bukin^{1,2}, Yu.P. Dzhioev^{3,4}, I.V. Kozlova⁴, S.E. Tkachev⁶, D.O. Kiselev³, A.I. Paramonov³, O.N. Reva³, V.I. Zlobin³ ¹Limnological Institute SB RAS, Irkutsk, Russia ²Irkutsk State Technical University, Irkutsk, Russia ³Irkutsk State Medical University, Irkutsk, Russia ⁴Scientific Center of Family Health Problems and Human Reproduction, SB RAS, Irkutsk, Russia ⁵University of Pretoria, Pretoria, South Africa ⁶Institute of Chemical Biology and Fundamental Medicine, SB RAS, Novosibirsk, Russia</p>
	<p>Antioxidant response element controls lysosomal biogenesis master-regulator genes A.V.Chechushkov, N.K. Zenkov, E.B. Menshchikova Research Institute of Experimental and Clinical Medicine, Novosibirsk, Russia</p>
	<p>Some aspects of molecular evolution and recombinational variability of the Zika virus Y.P. Dzhioev^{1,2}, A.I. Paramonov², Y.S. Bukin^{3,4}, I.V. Kozlova², V.I. Zlobin¹ ¹Irkutsk State Medical University, Institute of Biomedical Technology, Irkutsk, Russia; ²Scientific Center of family health and human reproduction problems, Irkutsk, Russia; ³Limnological institute of the Siberian Branch of the Russian Academy of Sciences, Irkutsk, Russia; ⁴Irkutsk National Research Technical University, Irkutsk, Russia.</p>
	<p>The distance matrix bootstrapping in the case of quantitative traits V.M. Efimov¹⁻⁴, K.V. Efimov⁵, V.Y. Kovaleva² ¹Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia ²Institute of Systematics and Ecology of Animals, SB RAS, Novosibirsk, Russia ³Novosibirsk State University, Novosibirsk, Russia</p>

	<p>⁴Tomsk State University, Tomsk, Russia ⁵Moscow Institute of Physics and Technology (State University), Moscow, Russia</p>
	<p>Conservation level of the key meiotic proteins reflects their function and independent evolution in different lineages of eukaryotes T.M. Grishaeva, Yu.F. Bogdanov Vavilov Institute of General Genetics RAS, Moscow, Russia</p>
	<p>A computation system for randomization-based enrichment analysis using GPU: performance investigation M. Grishenko¹, A. Yakimenko^{1,2}, M. Khairtdinov^{1,2}, K. Gunbin³ ¹Novosibirsk State Technical University, Novosibirsk, Russia ²Institute Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia ³Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>Searching for cytolytic genetic markers of newcastle disease virus using computer assisted analysis K.V. Gunbin^{1,4}, M.R. Kabilov², K.S. Yurchenko³, A.V. Glushchenko³, A.M. Shestopalov³, N.V. Gubanova^{1,4} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia ³Research Center of Clinical and Experimental Medicine, SB RAMS, Novosibirsk, Russia ⁴Novosibirsk State University Novosibirsk, Russia</p>
	<p>Punctuated evolution: the relationship between rare mutations and cladogenesis of vertebrates K. Popadin¹, K. Gunbin^{2,3} ¹Center for Integrative Genomics, University of Lausanne, Switzerland ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ³Novosibirsk State University Novosibirsk, Russia</p>
	<p>Genetic diversity among eight <i>Dendrolimus</i> species in Eurasia (Lepidoptera: Lasiocampidae) inferred from mitochondrial COI and COII, and nuclear ITS2 markers A. Kononov¹, K. Ustyantsev¹, B. Wang², V. Mastro², V. Fet³, A. Blinov¹, Y. Baranchikov⁴ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²USDA-APHIS-PPQ CPHST, Otis Laboratory, Otis Air National Guard Base, MA, USA ³Department of Biological Sciences, Marshall University, Huntington, USA ⁴V.N.Sukachev Institute of Forest, SB RAS, Krasnoyarsk, Russia</p>
	<p>Comparative analysis of expression of anhydrobiosis-related genes in response to different types of ionizing radiation in the sleeping chironomid (<i>Polypedilum vanderplanki</i>) A.V. Ryabova¹, A.V. Cherkasov^{1*}, K. Mukae², T. Kikawada³, T. Okuda³, T. Sakashita⁴, O. Gusev^{1,5,6} ¹Institute of Fundamental Biology and Medicine, KFU, Kazan, Russia ²Department of Regulatory Biology, Saitama University, Saitama, Japan ³Anhydrobiosis Research Group, NIAS, Tsukuba, Japan ⁴Takasaki Advanced Radiation Research Institute, Takasaki, Japan ⁵Division of Genomic Technologies, CLST, RIKEN, Yokohama, Japan ⁶Preventive Medicine & Diagnosis Innovation Program, CLST, RIKEN, Yokohama, Japan</p>
	<p>Invasive entomo-mycological association of <i>P. proximus</i> and its phytopatogenic symbiont in Siberia and European part of Russia A. Kononov¹, A. Blinov¹, N. Pashenova², N. Percova², Y. Baranchikov². ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²V.N.Sukachev Institute of Forest, SB RAS, Krasnoyarsk, Russia</p>
	<p>Comparative transcriptomics provides new insights into origin of extraordinary resistance to desiccation in Australian midge <i>Paraborniola tonnoiri</i> (Chironomidae) O.S. Kozlova¹, E.I. Shagimardanova¹, L.Kh. Shigapova¹, R.M. Devyatiarov¹, M.D.Logacheva^{2,1}, R. Cornette³, T. Kikawada³ and O.A. Gusev^{4,1} ¹Extreme Biology Laboratory, Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia ²Laboratory of evolutionary genomics, Faculty of bioengineering and bioinformatics, Moscow State University, Moscow, Russia ³National Institute of Agrobiological Sciences, Tsukuba, Japan</p>

	⁴ Preventive Medicine & Diagnosis Innovation Program (PMI), Division of Genomic Technologies, RIKEN, Yokohama, Japan
	<p>Comparative genomics and transcriptomics of <i>Chironomidae</i> midges under extreme conditions O.S. Kozlova¹, A.V. Cherkasov¹, R.M. Devyatiarov¹, M.D. Logacheva^{2,1}, R. Cornette³, T. Kikawada³, A.A. Przhiboro⁴ and O.A. Gusev^{5,1}</p> <p>¹Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia ² Faculty of bioengineering and bioinformatics, Moscow State University, Moscow, Russia ³National Institute of Agrobiological Sciences, Tsukuba, Japan ⁴Zoological Institute, Russian Academy of Sciences, Moscow, Russia ⁵Preventive Medicine & Diagnosis Innovation Program (PMI), RIKEN, Yokohama, Japan</p>
	<p>Project: «One hundred pedigrees of the Tuvans» D.A. Lopsan, U.N. Kawai-ool Laboratory of Genetics, Tuvan State University, Kyzyl, Russia.</p>
	<p>SitEx 2.0: functional sites projection on alternative spliced isoforms and homologous genes I.V. Medvedeva, P.S. Demenkov, V.A. Ivanisenko Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>Molecular evolution analysis of RNA-binding Nip7 protein from deep- and shallow-water archaea K.E. Medvedev, D.A. Afonnikov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>Molecular evolution and systematics of flat leeches (<i>Hirudinea: Glossiphoniidae</i>) N.B. Mandzyak¹, I.A. Kaygorodova^{1,2} ¹Limnological Institute SB RAS, Irkutsk, Russia ²Irkutsk State University, Irkutsk, Russia</p>
	<p>Distribution of 2541-2542delCA <i>kdpd</i> frameshift mutation in genomes of <i>Mycobacterium tuberculosis</i> from Irkutsk Oblast and Yakutia O. Ogarkov^{1,2,3}, V. Sinkov¹, I. Mokrousov⁴, S. Zhdanova¹, P. Khromova¹, E. Orlova^{1,3}</p> <p>¹Scientific Centre of the Family Health and Human Reproduction Problems, Irkutsk, Russia ²Irkutsk State Medical Academy of Continuing Education, Irkutsk, Russia ³Irkutsk State University, Irkutsk, Russia ⁴St. Petersburg Pasteur Institute, St. Petersburg, Russia</p>
	<p>Electrostatics: a new old genome selection factor A.A. Osypov Institute of Higher Nervous Activity and Neurophysiology RAS, Moscow, Russia, Institute of Cell Biophysics of RAS, Pushchino, Russia</p>
	<p>Identification of recombination sites in the genomes of the european subtype of tick borne encephalitis virus A.I. Paramonov¹, Yu.P. Dzhioev^{1,2}, I.V. Kozlova¹ ¹FGBNU Scientific Center of family health and human reproduction problems, Irkutsk, Russia ²Irkutsk State Medical University, Institute of Biomedical Technology, Irkutsk, Russia</p>
	<p>RNA seq analysis of marine and freshwater forms of three-spined stickleback (<i>Gasterosteus aculeatus</i>). Evolutionary and physiological mechanisms of adaptation S.M. Rastorguev¹, A.V. Nedoluzhko¹, A.M. Mazur², E.B. Prockhorchouk² ¹National Research Center “Kurchatov Institute”, Moscow, Russia. ²Institute of Bioengineering, Research Center of Biotechnology SB RAS, Moscow, Russia.</p>
	<p>PQ: a new program for phylogenetic reconstruction D.Penzar¹, M.S.Krivozubov², S.A.Spirin³ ¹Faculty of Bioengineering and Bioinformatics, Moscow State University, Moscow, Russia ²Gamaleya Center of Epidemiology and Microbiology, Moscow, Russia ³Belozersky Institute of Physico-Chemical Biology of Moscow State University and Institute of System Studies, Moscow, Russia</p>

	<p>Phylogenetic reconstruction within <i>Mycobacterium tuberculosis</i> Beijing genotype in northeastern Russia S. Zhdanova¹, O. Ogarkov^{1,2,3}, G. Alexeeva⁴, M. Vinikurova⁴, E. Savilov^{1,4}, V. Sinkov¹ ¹Scientific Centre of the Family Health and Human Reproduction Problems, Irkutsk, Russia ²Irkutsk State Medical Academy of Continuing Education, Irkutsk, Russia ³Irkutsk State University, Irkutsk, Russia ⁴Research Practice Center for Phthisiatry, Yakutsk, Russia</p>
	<p>Genome and chromosome evolution of mosquitoes–vectors of human diseases M.V. Sharakhova^{1,2}, V.A. Timoshevskiy, A.N. Naumenko¹, A. Peery¹, G.N. Artemov², V.N. Stegny², I.V. Sharakhov^{1,2} ¹Virginia Polytechnic and State University and Fralin Life Science Institute, VA, USA. ²Tomsk State University, Tomsk, Russia</p>
	<p>The mitochondrial gene order and CYTB evolution in Hymenoptera and other insects F.S. Sharko¹, A.V. Nedoluzhko², S.M. Rastorguev², A.A.Polilov³, K.G. Skryabin^{1,2,3}, E.B. Prokhortchouk^{1,3}. ¹Institute of Bioengineering, Research Center of Biotechnology of the Russian Academy of Sciences, Moscow, Russia ²National Research Center “Kurchatov Institute”, Moscow, Russia. ³Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia</p>
	<p>Molecular phylogenetic analysis of the grasshoppers of family acrididae based on several mitochondrial and nuclear markers I.S. Sukhikh¹, A.G. Blinov¹, A.G. Bugrov² ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Institute of Systematics and Ecology of Animals SB RAS, Novosibirsk, Russia</p>
	<p>TATA-box and gene expression norm of reaction V.V. Suslov, M.P. Ponomarenko, D.A. Rasskazov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>The <i>Ile462Val</i> polymorphism of the cytochrome <i>P450 CYP1A1</i> gene among eastern buryats compared with Russians in Trans Baikal area L.E. Tabikhanova¹, L.P. Osipova^{1,2}, T.V. Churkina¹, E.N. Voronina^{2,3}, M.L. Filipenko^{2,3} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Institute of Chemical Biology and Fundamental Medicine, SB RAS, Novosibirsk, Russia</p>
	<p>Genetic polymorphism of glutathione S-transferase p1 (<i>GSTP1</i>) among Buryats, Teleuts and Russians L.E. Tabikhanova¹, L.P. Osipova^{1,2}, T.V. Churkina¹, H. Bai,³ E.N. Voronina^{2,4}, M.L. Filipenko^{2,4} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Inner Mongolia University for the Nationalities, Tongliao, China. ⁴Institute of Chemical Biology and Fundamental Medicine, SB RAS, Novosibirsk, Russia</p>
	<p>Phylogenetic analyses of <i>Mycobacterium tuberculosis</i> Ural family by WGS data from Eurasia V. Sinkov¹, O. Ogarkov^{1, 2, 3}, y. Bukin^{4, 5}, I. Mokrousov⁶, S. Zhdanova¹ ¹Scientific Centre of the Family Health and Human Reproduction Problems, Irkutsk, Russia ²Irkutsk State Medical Academy of Continuing Education, Irkutsk, Russia ³Irkutsk State University, Irkutsk, Russia ⁴Limnological Institute SB RAS, Irkutsk, Russia ⁵Irkutsk National Research Technical University, Irkutsk, Russia ⁶Laboratory of Molecular Epidemiology and Evolutionary Genetics, St. Petersburg Pasteur Institute, St. Petersburg, Russia</p>
	<p>Parasites of the genera <i>Nosema</i>, <i>Apicistis</i>, <i>Crithidia</i> and <i>Lotmaria</i> in the natural honeybee and bumblebee populations: a case study in India V. Vavilova¹, I. Konopatskaia^{1, 2}, M. Woyciechowski³, S. Luzianin⁴, A. Blinov¹ ¹The Federal Research Center Institute of Cytology and Genetics SB RAS, Novosibirsk, Russian Federation ²Novosibirsk State University, Novosibirsk, Russian Federation</p>

	<p>³Institute of Environmental Sciences, Jagiellonian University, Krakow, Poland ⁴Biological Faculty, Kemerovo State University, Russian Federation</p>
	<p>Problem of phylogenetic position of <i>Dicyemids</i> O. Zverkov, L. Rusin, V. Lyubetsky, V. Aleoshin Institute for Information Transmission Problems of the Russian Academy of Sciences (Kharkevich Institute), Moscow, Russia</p>
	<p>Phylogeny developed over the triplet composition of mitochondrial genomes: high synchrony in the evolution of two genetic systems V.S. Fedotova¹, M.G. Sadovsky², Yu.A. Putintseva^{1,3} 1. Siberian Federal University, Krasnoyarsk, Russia 2. Institute of Computational Modeling, Krasnoyarsk, Russia 3. Forest Institute, Krasnoyarsk, Russia</p>
	<p>The significance of dissociative nucleotide changes accumulation rate in the genotype variability of tick-borne encephalitis virus for gene E D. O. Kiselev¹, S. Ju. Bukin², A. I. Paramonov³, Ju. P. Dzhioev¹, V. I. Zlobin¹ ¹Irkutsk State Medical University, Irkutsk, Russia ²Limnological Institute, Irkutsk, Russia ³Scientific Centre for Human Reproduction and family health problems, Irkutsk, Russia</p>
	<p>Molecular evolution of YUCCA protein family I.I. Turnaev, V.V. Suslov, K.V. Gunbin, D.A. Afonnikov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
«Computer Systems biology»	<p>The role of huntingtin protein-protein interactions in the processes of changing and maintenance of neurotransmission in hippocampus. A.L. Proskura, S.O. Vechkapova, T.A. Zapara, A.S. Ratushniak. Design Technological Institute of Digital Techniques SB RAS, Novosibirsk, Russia</p>
	<p>How to accomplish a rapid defense against foreign DNA — restriction-modification systems and implications for synthetic gene circuits B. Blagojevic¹, M. Djordjevic¹, M. Djordjevic² ¹Institute of Physics Belgrade, University of Belgrade, Belgrade, Serbia ²Institute of Physiology and Biochemistry, Faculty of Biology, University of Belgrade, Belgrade, Serbia</p>
	<p>Identification of new candidate genes for elevated body mass index near GWAS SNPs using transcript annotations from ENSEMBL and HAVANA projects. E.V. Ignatieva, V.G. Levitsky Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>The compendium of human genes controlling feeding behavior or body weight, reconstruction of networks and analysis of their properties E.V. Ignatieva, O.V. Saik, D.A. Afonnikov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>Biomolecular systems models semi-automatic reconstruction based on structural and quantitative information F.V. Kazantsev^{1,2}, I.R. Akberdin^{1,5}, S.A. Lashin^{1,2}, Natalia Ree¹, Vladimir Timonov², A.V. Ratushny^{3,4}, T.M. Khlebodarova¹, V.A. Likhoshvai ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia, ²Novosibirsk State University, Novosibirsk, Russia, ³Center for Infectious Disease Research, Seattle, USA, ⁴Institute for Systems Biology, Seattle, USA, ⁵San Diego State University, San Diego, USA</p>
	<p>The use of discriminant analysis and artificial neuronal network in breast cancer detection U.S. Bagina, L.V. Shchegoleva, T.O. Volkova Petrozavodsk State University, Petrozavodsk, Russia</p>
	<p>UGENE: a toolkit for teaching students I.V. Bykova¹, O.I. Golosova¹, A.Y. Bakulina^{2,3}, D.A. Afonnikov^{2,4}, D.Y. Kandrov¹, A.Y. Palyanov^{2,5}, G.A. Grekhov,¹ Y.E. Danilova¹ ¹Unipro Center of Information Technologies, Novosibirsk, Russia</p>

	<p>²Novosibirsk State University, Novosibirsk, Russia ³State Research Center of Virology and Biotechnology VECTOR, Koltsovo, Novosibirsk region, Russia ⁴Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ⁵Institute of Informatics Systems SB RAS, Novosibirsk 630090</p>
	<p>Graph database for human microbiome A.A. Ryasik, E.A. Temlyakova, M.A. Orlov, A.A. Sorokin Institute of Cell Biophysics RAS, Pushchino, Russia</p>
	<p>Simulation of enhancer evolution in a computational model of the <i>Drosophila</i> gap gene network A.A. Chertkova¹, J. Schiffman², K.N. Kozlov¹, M.G. Samsonova¹, S.V. Nuzhdin^{1,2}, V.V. Gursky^{1,3} ¹Peter the Great St. Petersburg Polytechnic University, St. Petersburg 195251, Russia ²University of Southern California, Los Angeles, CA 90089, U.S.A. ³Ioffe Institute, St. Petersburg, 194021, Russia</p>
	<p>Cluster analysis of stress-induced duplex destabilization (SIDD) profiles for <i>E. coli</i> promoters M.A. Orlov, A.A. Ryasik, E.A. Temlyakova, A.A. Sorokin Institute of Cell Biophysics RAS, Pushchino, Russia</p>
	<p>Orthoscape: a Cytoscape plugin for evolutionary analysis of gene networks Z.S. Mustafin¹, D.A. Afonnikov^{1,2}, K.V. Gunbin¹, Yu.G. Matushkin^{1,2}, S.A. Lashin^{1,2} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Dioxin-mediated upregulation of oncostatin m in u937 macrophages D.Y. Oshchepkov¹, E.V. Kashina¹, V.A. Mordvinov¹, D.P. Furman^{1,2} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>BioStore: a cloud-compatible hub for bioinformatics related tools and platforms S. Pintus¹, T. Valeev^{1,2}, I. Yevshin^{1,2}, F. Kolpakov^{1,2} ¹Institute of Systems Biology Ltd., Novosibirsk, Russia ²Design Technological Institute of Digital Techniques, The Siberian Branch of The Russian Academy of Sciences, Novosibirsk, Russia</p>
	<p>Sanger data processing in UniPro UGENE A.V. Tiunov, E.A. Pushkova, y.A. Algaer, G.A. Grekhov and the UGENE team Unipro Center of Information Technologies, Novosibirsk, Russia</p>
	<p>An ImageJ plugin for detection of wheat leaf epidermis cellular structure from confocal laser scanning microscopy U.S. Zubairova¹, P.Yu. Verman² and A.V. Doroshkov¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Assessment of translational importance of mammalian mRNA sequence features based on ribo- and mRNA-seq data Yu.V. Kondrakhin^{1,2}, R.N. Sharipov^{1,2}, O.A. Volkova³ ¹Design Technological Institute of Digital Techniques, SB RAS, Novosibirsk, Russia ²BIOSOFT.RU, Ltd, Novosibirsk, Russia ³The Federal Research Center Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia</p>
	<p>Ultrastructural analysis of mitotic division in <i>Drosophila</i> S2 cells A.A. Strunov^{1,2*}, L.V. Boldyreva², A.V. Pindyurin², M. Gatti^{2,3}, E. Kiseleva¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Institute of Molecular and Cellular Biology, Novosibirsk, Russia ³Sapienza University of Rome, Rome, Italy</p>
	<p>Ultrastructural analysis of spindle and kinetochores in augmin-depleted <i>Drosophila</i> S2 cells</p>

	<p>A.A. Strunov^{1,2}, L.V. Boldyreva², A.V. Pindyurin², M. Gatti^{2,3}, E. Kiseleva¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Institute of Molecular and Cellular Biology, Novosibirsk, Russia ³Sapienza University of Rome, Rome, Italy</p>
	<p>Comparative analysis of gastrointestinal microbiome in wild and domestic quails M.N. Siniagina¹, M.I. Markelova¹, E.R. Kirillova¹, E.A. Boulygina¹, A.V. Lichoman² V.V. Radchenko³ ¹Kazan Federal University, Kazan, Russia ²Kuban State Agrarian University, Krasnodar, Russia ³M.M. Shemyakin and Yu.A. Ovchinnikov Institute of Bioorganic Chemistry of the Russian Academy of Sciences, Moscow, Russia</p>
	<p>Computational model for mammalian circadian oscillator interacting with NAD+ / SIRT1 pathway O.A. Podkolodnaya¹, N.N. Tverdokhle^{1,3}, N.L. Podkolodny^{1,2,3} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk ³Novosibirsk State University, Novosibirsk</p>
«Computational pharmacology»	<p>A congestion game model for virtual drug screening in a desktop grid N.N. Nikitina, E.E. Ivashko Institute of Applied Mathematical Research, Karelian Research Center of the Russian Academy of Sciences, Petrozavodsk, Russia</p>
	<p>Based on the local sequence similarity method for prediction of amino acid positions related to the protein-ligand specificity D.A. Karasev^{1,2}, A.V. Veselovsky¹, N.Yu. Oparina^{3,4}, A.V. Rudik¹, D.A. Filimonov¹, B.N. Sobolev¹ ¹Institute of Biomedical Chemistry, Moscow, Russia ²Russian National Research Medical University, Moscow, Russia ³Engelhardt Institute of Molecular Biology, Moscow, Russia ⁴Department of Medical Biochemistry and Microbiology, Uppsala University, Uppsala, Sweden</p>
	<p>DNA duplex structure and thermodynamics by molecular dynamics simulation A.A. Lomzov, D.V. Pyshnyi Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>
	<p>Fighting with HIV-1 resistance to reverse transcriptase inhibitors by computer-aided approach O.A. Tarasova, D.A. Karasev, D.A. Filimonov, V.V. Poroikov Institute of Biomedical Chemistry, Moscow, Russia</p>
	<p>Molecular modeling of the interaction between indole lupane derivatives and c-Myc/Max heterodimer T. S. Frolova^{1,2,3}, D. S. Baev², A. V. Petrova⁴, E. F. Khusnutdinova⁴, O. I. Sinityna^{1,3} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia ³Novosibirsk State University, Novosibirsk, Russia ⁴Bashkir State University, Ufa, Russia</p>
	<p>Predicting of thermodynamic data of morpholino analogous of NA by computer approach and comparing with experiments V.M. Golyshhev, A.A. Lomzov Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>
	<p>Computer modelling of inhibitors of protease of human hepatitis C virus based on knottin scaffold A.V. Talanova, D.S. Shcherbinin, E.F. Kolesanova, A.V. Veselovsky V.N. Orekhovich Institute of Biomedical Chemistry, Moscow, Russia</p>
«Systems biology of plants»	<p>Comprehensive analysis of draft genomes of two closely related pseudomonas syringae phylogroup 2b strains infecting mono- and dicotyledon host plants R.I. Sultanov^{1,2}, G.P. Arapidi^{1,2}, S.V. Vinogradova³, V.M. Govorun^{1,2,4}, D.G. Luster⁵ and A.N. Ignatov⁶ ¹Moscow Institute of Physics and Technology (State University), Moscow, Russia</p>

	<p>²Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, the Russian Academy of Sciences, Moscow, Russia</p> <p>³Research Center of Biotechnology, Moscow, Russia</p> <p>⁴SRCC of Physical-Chemical Medicine, Moscow, Russia</p> <p>⁵USDA-ARS Foreign Disease - Weed Science Research Unit, Ft. Detrick, USA</p> <p>⁶R&D Center "Phytoengineering" LLS, Moscow region, Russia</p>
	<p>De novo sequencing and comparative analysis of chloroplast genomes for four ferns of <i>Dryopteris</i> and <i>Adiantum</i> genera</p> <p>M.S. Belenikin^{1,2}, A.A. Krinitsina¹, S.V. Kuptsov¹, M.D. Logacheva¹, A.S. Speranskaya¹</p> <p>¹Lomonosov Moscow State University, Moscow, Russia</p> <p>²Pirogov Russian National Research Medical University, Moscow, Russia</p>
	<p>Development of microsatellite markers according to BAC sequencing data and their physical mapping to the bread wheat 5B chromosome</p> <p>M.A. Nesterov^{1*}, D.A. Afonnikov¹, E.M. Sergeeva¹, L.A. Miroshnichenko², M.K. Bragina¹, A.O. Bragin¹, G.V. Vasiliev¹, E.A. Salina¹</p> <p>¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p> <p>²Sobolev institute of Mathematics SB RAS, Novosibirsk, Russia</p>
	<p>Distinct types of EIN3-DNA interactions in various functional regions of <i>A. thaliana</i> L. genome</p> <p>E.V. Zemlyanskaya^{1,2}, D.Yu. Oshchepkov¹, V.G. Levitsky^{1,2}</p> <p>¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p> <p>²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Heat shock proteins of potato in vitro under heat and biotic stress</p> <p>A.I. Perfileva, E.G. Rikhvanov</p> <p>Siberian Institute of Plant Physiology and Biochemistry, S. B. RAS, Irkutsk, Russia</p>
	<p>Identification of nuclear genes controlling chlorophyll synthesis in barley by RNA-seq</p> <p>N.A. Shmakov^{1,2}, G. V. Vasiliev¹, N. V. Shatskaya¹, A. V. Doroshkov¹, D.A. Afonnikov^{1,2}, E. K. Khlestkina^{1,2}</p> <p>¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;</p> <p>²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Mathematical modeling a reciprocal interactions between auxin and its PIN transporters in the root tip of <i>A. thaliana</i> L.</p> <p>V. V. Kovriznykh^{1,2}, F.V. Kazantsev¹, N.A. Omelyanchuk^{1,2}, V.V. Mironova^{1,2}</p> <p>¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p> <p>²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Mechanics of plant cell unidirectional growth</p> <p>S.V. Nikolaev^{1,2}, S.K. Golushko², U.S. Zubairova¹, D.A. Afonnikov¹</p> <p>¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p> <p>²Design and Technology Institute of Digital Techniques SB RAS, Novosibirsk, Russia</p>
	<p>Membrane-associated kinase regulators of MAKR family genes in <i>Arabidopsis thaliana</i> L.</p> <p>D.D. Novikova, N.A. Omelyanchuk and V.V. Mironova</p> <p>Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p> <p>Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Metabolite profiling of the moss <i>Physcomitrella patens</i> inoculated with pseudomonas</p> <p>E.D. Egorova, N.A. Baraeva, S.V. Vinogradova</p> <p>Research Center of Biotechnology RAS, Moscow, Russia</p>
	<p>Molecular evolution analysis of genes related to plant root hair and trichome development</p> <p>D.Yu. Konstantinov¹ and A.V. Doroshkov^{2*}</p> <p>¹Novosibirsk State University, Novosibirsk, Russia</p> <p>²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>Multidimensional patterns of metabolic response in abiotic stress-induced growth of <i>Arabidopsis thaliana</i></p>

	<p>B.S. Yadav¹, S. Freilich², E. Katz¹, A. Finkelshtein¹, D.A. Chamovitz¹ ¹Department of Molecular Biology and Ecology of Plants, Tel Aviv University, Israel ²Newe Ya'ar Research Center, Agricultural Research Organization, Ramat Yishay, Israel</p>
	<p>MYC gene family in cereals: transformation in the course of the <i>Triticum</i> and <i>Aegilops</i> genera evolution K.V. Strygina¹, E.K. Khlestkina^{1,2} ¹Federal Research Center Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Physiological and transcriptional changes in a blossom-end rot resistant tomato introgression line IL8-3 fruit S. Tomoki, H. Ikeda, Y. Kanayama School of Agricultural Science, Tohoku University, Sendai, Japan</p>
	<p>Polymorphism of the <i>VRN-A1</i> exon-4 and exon-7 in polyploid wheat A.F. Muterko, E.A. Salina Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>Sequencing of conifer genomes using ngs N.V. Oreshkova^{1,2}, Yu.A. Putintseva^{1,2}, D.A. Kuzmin¹, V.V. Sharov¹, V.V. Biryukov¹, S.V. Makolov¹, K.V. Krutovsky^{1,3,4,5} ¹Siberian Federal University, Krasnoyarsk, Russia ²V.N. Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia ³Georg-August University of Göttingen, Göttingen, Germany ⁴N.I. Vavilov Institute of General Genetics, RAS, Moscow, Russia ⁵Texas A&M University, College Station, USA</p>
	<p>Study on the regulation of cell division during early fruit development in tomato H. Nariyama, T. Shibuya, Y. Kanayama School of Agricultural Science, Tohoku University, Sendai, Japan</p>
	<p>Synthesis and accumulation of a novel functional food component in tomato A. Ito, S. Hano, N. Imoto, T. Shibuya, Y. Kanayama* <i>School of Agricultural Science, Tohoku University, Sendai, Japan</i></p>
	<p>The manifestation and phytohormone response of leaf pubescence genes in bread wheat A.V. Doroshkov, A.V. Simonov, D.A. Afonnikov, T.A. Pshenichnikova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>The occurrence of spring forms in tetraploid timopheevi wheats is associated with variation in the first intron of <i>VRN-A1</i> gene A.B. Shcherban¹, A.A. Schischkina², E.A. Salina¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Institute of General Genetics RAS, Moscow, Russia</p>
	<p><i>VRN1</i> genes variability in tetraploid wheat species with a spring growth habit I. Konopatskaia^{1,2}, V. Vavilova¹, E.Ya. Kondratenko¹, A. Blinov¹, N.P. Goncharov^{1,3} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Novosibirsk State Agrarian University, Novosibirsk, Russia</p>
	<p>Wheatdb2: plant trait database and information system based on Crop Ontology terms E.G. Komyshv¹, M.A. Genaev¹, A.V. Akushkina², D.A. Afonnikov^{1,3} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State Agrarian University, Novosibirsk, Russia ³Novosibirsk National Research State University, Novosibirsk, Russia</p>
«Proteomics»	<p>Approach to predicting the solubility/insolubility of <i>E. coli</i> proteins based on their primary structure using sequence normalization and machine learning techniques</p>

	<p>N.A. Alemasov¹, N.V. Ivanisenko¹, K.S. Antonets^{2,3}, A.A. Nizhnikov^{2,3}, V.A. Ivanisenko¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²St. Petersburg State University, St. Petersburg, Russia ³Vavilov Institute of General Genetics SPB RAS, St. Petersburg, Russia</p>
	<p>GeneOntology biological processes sensitive to salt diet changes in an experiment with 105-day isolation: statistical analysis of urine proteome E. Tiys^{1,2}, E.D. Petrovskiy¹, L.Kh. Pastushkova³, D.N. Kashirina³, I.M. Larina³, V.A. Ivanisenko¹ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk state university, Novosibirsk, Russia ³Institute for Biomedical Problems RAS, Moscow, Russia</p>
	<p>Human blood bispecific antibodies – new biochemical markers of autoimmune diseases S.E. Sedykh, V.V. Printz, V.N. Buneva, G.A. Nevinsky ¹Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Identification of bacillus pumilus group strains by maldi tof ms using geometric approach K.V. Starostin, E.A. Demidov, A.V. Bryanskaya, V.M. Efimov, A.S. Rozanov, S.E. Peltek Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>K-mer frequency distribution of eukaryotic proteomes A.A. Morozov Limnological Institute SB RAS, Irkutsk, Russia</p>
	<p>Proteomic analysis of horse milk exosomes S.E. Sedykh, L.W. Purvinsch, V.N. Buneva, G.A. Nevinsky ¹Novosibirsk State University, Novosibirsk, Russia ²Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>
	<p>Scoring of protein docking by Gene Ontology A. Hadarovich^{1,2}, I. Anishchenko¹, A.V. Tuzikov², P.J. Kundrotas¹, I.A. Vakser¹ ¹Center for Computational Biology and Department of Molecular Biosciences, University of Kansas, Lawrence, Kansas, USA ²United Institute of Informatics Problems, National Academy of Sciences, Minsk, Belarus</p>
	<p>Structural patterns among the diversity of flavin-dependent oxidoreductases from luminous bacteria and e. Coli A.A. Deeva, E.A. Temlyakova, A.A. Sorokin, E.V. Nemtseva, V.A. Kratasyuk Siberian Federal University, Krasnoyarsk, Russia Institute of Cell Biophysics RAS, Pushchino, Russia</p>
	<p>The role of Q/T-rich regions in the induction of amyloidogenesis K.S. Antonets^{1,2*}, A.A. Nizhnikov^{1,2}, A.P. Galkin^{1,2} ¹Dept. of Genetics and Biotechnology, St. Petersburg State University, Universitetskaya nab, 7-9, St. Petersburg, 199034 Russia ²St. Petersburg Branch, Vavilov Institute of General Genetics, Russian Academy of Sciences, Universitetskaya nab, 7-9, St. Petersburg 199034, Russia</p>
	<p>Proteomic of TCA – extracted compounds, isolated from human blood serum revealed new potential biomarkers, associated with autoimmune and hematological diseases S. Myronovkij¹, M. Starykovych¹, Y. Bobak¹, N. Negrych², T. Nehrych², M. Shorobura², O. Shalay³, S. Souchelnytskyi⁴, R. Stoika¹, Y. Kit¹ ¹Institute of Cell Biology, National Academy of Sciences of Ukraine, Lviv Ukraine ²Danylo Halytsky Lviv National Medical University, Lviv, Ukraine ³Institute of Blood Transfusion Medicine, National Academy of Medical Science of Ukraine, Lviv, Ukraine ⁴Center for Translational Molecular Medicine, College of Medicine, Qatar University, Doha, Qatar</p>
	<p>Gene ontology analysis and network reconstruction for genes related to aging diseases and behavior</p>

	I.V. Chadaeva, O.V. Saik, V.N. Babenko ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
«Systems biology of aging»	Two congenic strains prove effects on cataract and retinopathy but not on brain neurodegeneration in senescence-accelerated OXYS rats E.E. Korbolina, A.O. Vitovtov, N.G. Kolosova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
	The mitochondria-targeted plastoquinone SkQ1 affects <i>Drosophila melanogaster</i> lifespan in various environments A.V. Kremetsova ¹ , N.V. Roshina ² , E.A. Tsybul'ko ² , O.Y. Rybina ² , A.V. Symonenko ² , E.G. Pasyukova ² ¹ Emmanuel Institute of Biochemical Physics RAS, Moscow, Russia ² Institute of Molecular Genetics RAS, Moscow, Russia
	On the possible impact of exogenous 8-oxo-2'-deoxyguanosine on DNA synthesis, damage and repair in aging cell cultures and organism N.V. Marmiy ¹ , G.V. Morgunova ² , D.S. Esipov ¹ , A.N. Khokhlov ² ¹ Division of Bioorganic Chemistry, Biology Department, Moscow State University, Moscow, Russia ² Evolutionary Cytoogerontology Sector, Biology Department, Moscow State University, Moscow, Russia
	Biomarkers of age in the «stationary phase aging» model G.V. Morgunova, D.S. Esipov, M.V. Marmiy, A.N. Khokhlov Evolutionary Cytoogerontology Sector, School of Biology, Lomonosov Moscow State University, Moscow, Russia
	Phosphorylation of αB-crystallin: effects of aging and cardiomyopathy N.A. Muraleva ¹ , V.A. Devyatkin ^{1, 2} , N.A. Kolosova ¹ ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia
	Neurotrophin signaling pathway in development of Alzheimer's disease-like pathology E.A. Rudnitskaya, N.A. Muraleva, N.A. Stefanova, N.G. Kolosova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
	Development of cataract as the basic selection trait in the ontogeny of senescence-accelerated OXYS rats Yu.V. Rummyantseva, A.Z. Fursova, E.E. Korbolina, N.G. Kolosova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
	Genetic control of circadian rhythms: an impact of molecular clock expression profile changes in longevity I.A. Solovev ^{1, 2} , E.V. Dobrovolskaya ¹ , A.A. Moskalev ^{1, 2, 3} ¹ Institute of Biology of Komi Scientific Center of Ural Branch of RAS, Syktyvkar ² Syktyvkar State University, Syktyvkar ³ Moscow Institute of Physics and Technology (State University), Russia
	Identification of pathways associated with cell death in the cortex of OXYS rats as the signs of Alzheimer's disease develop G.K. Suvorov, D.V. Telegina, E.A. Rudnitskaya, N.A. Stefanova, N.G. Kolosova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
	Relationship of cell death in retina of rats during aging with the development of retinopathy D.V. Telegina, O.S. Kozhevnikova, N.G. Kolosova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
	Differential expression of <i>shaggy</i>, a <i>Drosophila melanogaster</i> gene encoding GSK-3 beta, affects lifespan M.V. Trostnikov, N.V. Roshina, E.G. Pasyukova Institute of Molecular Genetics, RAS, Russia
	Mitochondrial dysfunction in sporadic Alzheimer's disease-like pathology in OXYS rat M.A. Tyumentsev ¹ , E.V. Kiseleva ¹ , V.A. Vavilin ² , N.G. Kolosova ¹ , N.A. Stefanova ¹ ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ² Institute of Molecular Biology and Biophysics SB RAMS, Novosibirsk, Russia
	Structural basis for the recognition and processing of DNA containing bulky lesions by the mammalian nucleotide excision repair system

	<p>A. Evdokimov¹, A. Popov¹, I. Petruseva¹, O. Lavrik^{1,2} ¹Institute of chemical biology and fundamental medicine, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>
«Bioinformatics and molecular biology synergism in DNA damage response studies»	<p>The frequency, spectrum and functional significance of mutations in coding sequence of TP53 gene in Russian patients with DLBCL E.N. Voropaeva¹, T.I. Pospelova², M.I. Voevoda¹, V.N. Maximov^{1,2} ¹Institute of Therapy and Preventive Medicine, Novosibirsk, Russia ²State Medical University, Novosibirsk, Russia</p>
	<p>DNA damage and generation of reactive oxygen species by platinum drugs: experiments on bacteria E.V. Prazdnova*, V.A. Chistyakov, M.S. Mazanko, M.N. Churilov, V.K. Chmyhalo Academy of Biology and Biotechnologies of Southern Federal University, Rostov-on-Don, Russia</p>
	<p>Dynamic recognition of 8-Oxoguanine by different protein folds A.V. Endutkin^{1,2}, C. Simmerling³, D.O. Zharkov^{1,2} ¹SB RAS Institute of Chemical Biology and Fundamental Medicine, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Stony Brook University, Stony Brook, NY, USA</p>
	<p>TASSE: a new approach to solvent treatment in molecular dynamics A.V. Popov, Yu.N. Vorobjev, D.O. Zharkov Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>
	<p>Additivity and non-additivity of genetic control of human metabolome Tsepilov Y.A.^{1,2}, Shin S.^{3,4}, Soranzo N.³, Spector TD.⁵, Adamski J.^{6,7,8}, Kastenmüller G.⁹, Strauch K.^{10,11}, Wang-Sattler R.¹², Gieger C.¹⁰, Aulchenko Y.S.^{1,2}, Ried J.S.¹⁰ ¹Institute of Cytology and Genetics SD RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Wellcome Trust Sanger Institute, Wellcome Trust Genome Campus, Hinxton, United Kingdom ⁴MRC Integrative Epidemiology Unit (IEU), University of Bristol Integrative Epidemiology, Bristol, United Kingdom ⁵Department of Twin Research and Genetic Epidemiology, King's College London, London, United Kingdom ⁶Institute of Experimental Genetics, Genome Analysis Center, Helmholtz Zentrum München - German Research Center for Environmental Health, Neuherberg, Germany ⁷Institute of Experimental Genetics, Life and Food Science Center Weihenstephan, Technische Universität München, Freising-Weihenstephan, Germany ⁸German Center for Diabetes Research, Neuherberg, Germany ⁹Institute of Bioinformatics and Systems Biology, Helmholtz Zentrum München - German Research Center for Environmental Health, Neuherberg, Germany ¹⁰Institute of Genetic Epidemiology, Helmholtz Zentrum München - German Research Center for Environmental Health, Neuherberg, Germany ¹¹Institute of Medical Informatics, Biometry and Epidemiology, Chair of Genetic Epidemiology, Ludwig-Maximilians-Universität, Munich, Germany ¹²Research Unit of Molecular Epidemiology, Helmholtz Zentrum München – German Research Center for Environmental Health, Neuherberg, Germany</p>
«Genomics, transcriptomics and bioinformatics»	<p>Metagenomic analysis of viral communities in lake Baikal T.V. Butina¹, Y.S. Bukin¹, A.E. Tupikin², M.R. Kabilov², O.I. Belykh¹ ¹Limnological Institute SB RAS, Irkutsk, Russia ²Genomics Core Facility, Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia.</p>
	<p>Inmethyl: a tool for design of specific primers for methylation profiling of complete CPG islands G.S. Krasnov, A.V. Kudryavtseva, N.V. Melnikova, A.A. Dmitriev Engelhardt Institute of Molecular Biology RAS, Moscow, Russia</p>
	<p>Analysis of a powerful constitutive promoter in cultured cells of Polypedilum vanderplanki Sogame, Y.^{1,2}, Miyata, Y.^{1,3}, Deviatiiarov, R.⁴, Kikuta, S.⁵, Cornette, R.¹, Gusev, O.^{4,6}, Furusawa, T.¹, Kikawada, T.^{1,7}</p>

	<p>¹Institute of Agrobiological Sciences, NARO, Japan ²JSPS Research Fellow, ³ Center for Biological Resources and Informatics, Tokyo Institute of Technology ⁴Institute of Fundamental Medicine and Biology, Kazan Federal University, Russia ⁵Graduate School of Bio-Applications and Systems Engineering, Tokyo University of Agriculture and Technology, Tokyo, Japan ⁶Preventive Medicine & Diagnosis Innovation Program (PMI), RIKEN, Japan ⁷Department of Integrated Biosciences, Graduate School of Frontier Sciences, The University of Tokyo, Japan</p>
	<p>miR-619-5p binding sites in protein coding region of ortholog genes mRNA A.T. Ivashchenko, S.A. Atambayeva, R.E. Niyazova, A.Y. Pyrkova Al-Farabi Kazakh National University, Almaty, Kazakhstan</p>
	<p>Anhydrobiosis related promoters in Pv11 cell line R.M. Deviatiiarov¹, T. Kikawada², R. Cornette², O.A. Gusev^{1,2,3} ¹Institute of Fundamental Medicine and Biology KFU, Kazan, Russia ²National Institute of Agrobiological Sciences NIAS, Tsukuba, Japan ³Center of Life Science Technologies RIKEN, Yokohama, Japan</p>
	<p>Anhydro-preservation of exogenously-expressed desiccation-sensitive enzyme luciferase using insect cells S. Kikuta¹, S. Watanabe¹, O. Gusev^{2,3}, Y. Sogame⁴, R. Cornette⁵, T. Kikawada⁵ ¹Tokyo University of Agriculture and Technology, Japan ²Kazan Federal University, Russia ³Riken Division of Genomic Technologies, Japan ⁴National Agriculture and Food Research Organization, Japan</p>
	<p>Association of matrix metalloproteinases gene polymorphism with the risk of developing extra-articular symptoms of rheumatoid arthritis M.A. Korolev*, Y.B. Ubshaeva, E.A. Letyagina, A.V. Shevchenko, V.F. Prokof'yev, V.I. Konenkov Scientific Institute of clinical and experimental lymphology SB RAS, Novosibirsk, Russia</p>
	<p>Change of the scenario of the Trp-cage miniprotein folding with temperature V.A. Andryushchenko, S.F. Chekmarev Institute of Themophysics SB RAS and Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Characteristics of <i>acdS</i>-gene of bacteria <i>Pseudomonas putida</i> b- 37 responsible for ACC-deaminase synthesis D.S. Volkava*, S.I. Leanovich, A.A. Melnikava, E.A. Khramtsova Belarusian State University, Minsk, Republic of Belarus</p>
	<p>Characterization of novel alkane-degrading and biosurfactant-producing strain <i>Tsukamurella tyrosinosolvans</i> PS2 A.V. Laikov, E.A. Boulygina, V.A. Romanova, T.V. Grigorieva ¹ Kazan Federal University, Kazan, Russia</p>
	<p>Cmsearch: a tool for searching tfbs composite modules in DNA sequences S.I. Nikitin, E.S. Cheryomushkin A.P. Ershov Institute of Informatics Systems SB RAS, Novosibirsk, Russia Novel Computing Systems in Biology LLC, Novosibirsk, Russia</p>
	<p>Computer analysis of distal gene regulation using chromosome contacts data Y.L. Orlov¹, E.V. Kulakova², A.G. Bogomolov¹, V.N. Babenko¹, G. Li³ ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia ³Huazhong Agricultural University, Wuhan, China</p>
	<p>Computer software for statistical analysis of genes location relative to chromosome contacts revealed by ChIA-PET E.V. Kulakova, A.M. Spitsina Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Differential alternative splicing in rats brain tissues selected by aggressive behavior</p>

	V.N. Babenko, A.O. Bragin, I.V. Chadaeva, Y.L. Orlov <i>Novosibirsk State University, Novosibirsk, Russia</i> <i>Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</i>
	Differential expression of glycolysis-related genes in Hilar cholangiocarcinoma A.V. Snezhkina ¹ , D.V. Kalinin ³ , M.S. Fedorova ¹ , O.L. Kardymon ¹ , I.Y. Karpova ¹ , A.F. Sadritdinova ^{1,2} , N.V. Melnikova ¹ , A.A. Belova ^{1,2} , M.M. Belyakov ² , O.S. Sudalenko ² , N.N. Volchenko ² , A.Y. Popov ² , K.M. Nyushko ² , A.D. Kaprin ² , B.Y. Alekseev ² , A.A. Dmitriev ¹ , G.S. Krasnov ¹ , A.V. Kudryavtseva ^{1,2} ¹ Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia ² Herzen Moscow Cancer Research Institute, Ministry of Health of the Russian Federation, Moscow, Russia ³ A.V. Vishnevsky Institute of Surgery, Moscow, Russia
	Draft genome sequence of <i>Streptomyces sp. IB2014 011-1</i> isolated from Lake Baikal macroinvertebrates I.V. Voytsekhovskaya ¹ , D.V. Axenov-Gribanov ¹ , B.T. Tokovenko ² , Y.V. Rebets ² , E.S. Protasov ¹ , A.N. Luzhetskyy ² , M.A. Timofeyev ¹ ¹ Irkutsk State University, Institute of Biology, Irkutsk, Russia ² Helmholtz Center for Infectious Research (HZI), Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken, Germany
	Effects of lambertianic acid amide on epileptiform activity in hippocampal slices induced by picrotoxin or magnesium-free medium S.O. Vechkapova, A.L. Proskura*, T.A. Zapara, E.D. Sorokoumov, A.S. Ratushnyak Design Technological Institute of Digital Techniques SB RAS, Novosibirsk, Russia
	Features of miRNA interaction with mRNA genes in coronary heart disease A.T. Ivashchenko, R.E. Niyazova, S.A. Atambayeva, A.Y. Pyrkova Al-Farabi Kazakh National University, Almaty, Kazakhstan
	Functional analyses on the mechanism of induction of anhydrobiosis in the midge <i>Polypedilum vanderplanki</i> R. Cornette, K-I. Iwata, S. Kikuta, Y. Sogame, T. Okuda, T. Kikawada Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
	Functional analysis of RNA-seq transcriptomes from oesophageal cancer specimens of Kazakhstani patients U.Kairov ^{1*} , A.Molkenov ¹ , S.Rakhimova ¹ , A.Abilmazhinova ¹ , M.Zhalbinova ¹ , D.Yerezhepov ¹ , A.Akhmetova ¹ , Y.Zhukov ² , M.Omarov ² , M.Popova ³ , A.Zinovyev ⁴ , A.Akilzhanova ¹ and Zh.Zhumadilov ¹ ¹ Center for Life Sciences, NLA, Nazarbayev University, Astana, Kazakhstan. ² Oncology Center, Astana, Kazakhstan. ³ Department of Pathology, Astana Medical University, Astana, Kazakhstan. ⁴ Institute Curie, Paris, France.
	Genetic basis of aggression: clusterization of expression profiles E.S. Tiys ^{1,2} , A.O. Bragin ^{1,2} , I.V. Medvedeva ^{1,2} , I.V. Chadaeva ¹ , A.L. Markel ¹ , Y.L. Orlov ^{1,2} ¹ Institute of Cytology of Genetics SB RAS, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia
	Genetic diversity and metabolism of the Garga hot spring microbial mat A.S. Rozanov, A.V. Bryanskaya, T.K. Malup, T.V. Ivanisenko, Yu.E. Uvarova, S.E. Peltek Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
	Genotype distribution in patients with chronic hepatitis C analysis using multifactor dimensionality reduction method A.D. Liaudanski ¹ , M.S. Rodzkin ¹ , V.S. Pankratov ¹ , D.E. Danilau ² , I.A. Karpov ² , O.G. Davydenko ¹ ¹ Institute of Genetics and Cytology of the National Academy of Sciences of Belarus ² Belarusian State Medical University
	GTRD—gene transcription regulation database I.S. Yevshin ^{1,2} , R.N. Sharipov ^{1,2,3} , Yu.V. Kondrakhin ^{1,2} , F.A. Kolpakov ^{*1,2} ¹ Institute of Systems Biology Ltd., Novosibirsk, Russia ² Design Technological Institute of Digital Techniques, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia ³ Novosibirsk National Research State University, Novosibirsk, Russia

	<p>Gut microbiota in case of Parkinson's disease and other neurological pathologies: comparative study V.A. Petrov¹, V.M. Alifirova¹, I.V. Saltykova¹, Y.B. Dorofeyeva¹, A.V. Tyakht², E.S. Kostryukova², A.E. Sazonov^{1,3} ¹Siberian State Medical University, Tomsk, Russia ²Scientific Research Institute for Physical-Chemical Medicine, Moscow, Russia ³Lomonosov Moscow State University, Moscow, Russia</p>
	<p>How sequence and structure affect the miRNA maturation P.S.Vorozheykin¹, I.I.Titov^{1,2} ¹Novosibirsk State University, Novosibirsk, Russia ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</p>
	<p>In silico modelling of experimental ChIP-seq process T. Subkhankulova¹, F.M. Naumenko², Y.L. Orlov ¹Department of Biology and Biochemistry, University of Bath, Bath BA2 7AY, UK ²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Interspersed repetitive sequences distribution in human chromosomes analyzed by in situ hybridization and in silico analysis A.G. Bogomolov^{1,2}, T.V. Karamysheva¹, N.B. Rubtsov^{1,2} ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Methods to calculate p-value of RNA of a definite shape D.G. Vorobyev, V.V. Solovyev Softberry Inc., Novosibirsk, Russia</p>
	<p>Online Scripting Tool for retrieving 3D human genome data A. Butyaev, J. Waldispühl McGill University, Montreal, Québec, Canada</p>
	<p>Predicting small RNAs from bacterial genome T. Stankovic, J. Guzina, M. Nikolic, M. Djordjevic Faculty of Biology, University of Belgrade, Serbia</p>
	<p>Program complex ICGenomics for analysis of high-throughput sequencing experiments I.V. Medvedeva¹, A.O. Bragin¹, K.V. Gunbin¹, P.S. Demenkov¹, O.V. Vishnevsky¹, A.M. Spitsina², F.M. Naumenko², V.N. Babenko¹, N.L. Podkolodnyy¹, Y.L. Orlov^{1*} ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Novosibirsk State University, Novosibirsk, Russia</p>
	<p>Regulation of thioredoxin genes expression in desiccation-tolerant insect <i>Polypedilum vanderplanki</i> A.A. Nesmelov^{1*}, E.I. Shagimardanova¹, M.D. Logacheva², R. Cornette³, T. Kikawada³, O.A. Gusev^{1,3,4,5} ¹Institute of Fundamental Biology and Medicine, Kazan Federal University, Kazan, Russia ²Department of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow, Russia ³National Institute of Agrobiological Sciences (NIAS), Tsukuba, Japan ⁴PMI Riken, Yokohama Campus, Yokohama, Japan</p>
	<p>RTrans: analysis of RNA-Seq differential expression using GLM approach and uncovering its biological background G.S. Krasnov, A.V. Snezhkina, N.V. Melnikova, A.A. Dmitriev, A.V. Kudryavtseva Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia</p>
	<p>Search for gene mutations that can potentially affect the susceptibility to tuberculosis. O.V. Saik¹, P.S. Demenkov¹, E.U. Bragina², M. Freidin², A. El-Seedy³, R. Hofstaedt⁴, V.A. Ivanisenko¹. ¹ Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ² Research Institute of Medical Genetics SB RAMS, Tomsk, Russia ³ Alexandria University, Alexandria, Egypt</p>

	⁴ Bielefeld University, Bielefeld, Germany
	<p>Siberian larch chloroplast genome analysis over triplet frequency distribution E.I. Bondar¹, Y.A. Putintseva^{1,2}, K. V. Krutovsky^{2,3,4} ¹Siberian Federal university, Krasnoyarsk, Russia ²Institute of forest of SD RAS, Krasnoyarsk, Russia ³University of Göttingen, Göttingen, Germany ⁴Texas A&M University, College Station, Texas, USA</p>
	<p>Statistics of intervals between similar monomers: a complementary way to assess the structural properties of biological polymers M.I. Bogachev¹, A.R. Kayumov², O.A. Markelov¹ ¹St. Petersburg Electrotechnical University, St. Petersburg, Russia ²Kazan (Volga region) Federal University, Kazan, Russia</p>
	<p>Targeted high-throughput sequencing for MODY genes in West Siberia E.V. Shakhthshneider*, E.N. Voropaeva, D.E. Ivanoshchuk, A.K. Ovsyannikova, O.D. Rymar, Y.I. Ragino, M.I. Voevoda Institute of Internal and Preventive Medicine, Novosibirsk, Russia</p>
	<p>The genome wide analysis of the large tandem repeats in the closely related genomes D.I. Ostromyshenskii, O.I. Podgornaya Institute of Cytology RAS, St. Petersburg, Russia</p>
	<p>The influence of rare mutations in the APOB gene to the level of oxidized LDL E.Yu. Khlebus, N.V. Shcherbakova, I.S. Zhanin, A.A. Zharikova, A.I. Ershova, A.V. Kiseleva, S.A. Boytsov, A.N. Meshkov National Research Center for Preventive Medicine, Moscow, Russia</p>
	<p>The influence of SNP rs201381696 of a TATA box in the human LEP gene on expression of reporter gene LUC E.B. Sharypova¹, E.V. Kashina¹, O.V. Arkova^{1,2}, N.P. Bondar¹, T.V. Arshinova¹, P.M. Ponomarenko³, M.P. Ponomarenko¹, and L.K. Savinkova¹ ¹Federal research center Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia; ²Vector-Best Inc., Koltsovo, Novosibirsk Region, Russia; ³Children's Hospital Los Angeles, Los Angeles, USA.</p>
	<p>The role of miR-9 and miR-98 in the regulation of HK2 gene expression in colorectal cancer A.V. Snezhkina¹, I.Y. Karpova¹, O.L. Kardymon¹, A.F. Sadritdinova^{1,2}, M.S. Fedorova¹, N.V. Melnikova¹, O.A. Stepanov, K.M. Klimina⁴, E.N. Slavnova, K.M. Nyushko², N.N. Volchenko², M.A. Chernichenko², D.V. Sidorov², D.V. Kalinin³, A.Y. Popov², G.S. Krasnov¹, A.V. Kudryavtseva^{1,2*} ¹Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia. ²Herzen Moscow Cancer Research Institute, Ministry of Health of the Russian Federation, Moscow, Russia. ³A.V. Vishnevsky Institute of Surgery, Moscow, Russia ⁴Vavilov Institute of General Genetics, Russian Academy of Sciences Moscow, Russia</p>
	<p>The software for estimation of telomere length on individual chromosome arms in immunopathology A.G. Bogomolov^{1,3}, M.S. Barkovskaya², N.B. Rubtsov^{1,3}, V.A. Kozlov² ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia ²Research Institute of Fundamental and Clinical Immunology, Novosibirsk, Russia ³Novosibirsk State University, Novosibirsk, Russia</p>
	<p>The structure of genetic predisposition to type 1 and type 2 diabetes N.V. Tarasenko^{1,2}, I.A. Goncharova^{1,3}, A.V. Markov¹, V.P. Puzyrev^{1,2} ¹ Research Institute of Medical Genetics, Tomsk, Russian Federation ² Siberian State Medical University, Tomsk, Russian Federation ³ Institute for complex issues of cardiovascular diseases, Kemerovo, Russian Federation</p>
	<p>Transcriptomics of the cryobiotic leech <i>Ozobranchus jantseanus</i> S.V. Kuznecova¹, D. Suzuki², M.D. Logacheva³, O.S. Kozlova¹, T. Kikawada⁴, R.M. Sabirov¹, O.A. Gusev¹ ¹ Kazan Federal University, Kazan, Russia</p>

	<p>² Tokyo University of Marine Science and Technology, Tokyo, Japan, ³ M.V. Lomonosov Moscow State University, Moscow, Russia ⁴ National Institute of Agrobiological Sciences, Tsukuba, Japan</p>
	<p>Using the bioinformatic software techniques to search CRISPR / Cas systems in the genome of <i>Escherichia coli</i> strain O157:H7 E.I. Ivanova¹, Yu.P. Dzhihev^{1,2}, A.Yu. Borisenko², A.I. Paramonov¹, V.I. Zlobin², N.L. Belkova^{1,3} ¹«Scientific Center of the Family Health and Human Reproduction Problems», Irkutsk, Russia ²Irkutsk State Medical University, Irkutsk, Russia ³Limnological Institute SB RAS, Irkutsk, Russia</p>
	<p>Vascular endothelial growth factor polymorphisms are associated with the earlier onset of rheumatoid arthritis V.O. Omelchenko^{1*}, M. A. Korolev¹, E. A. Letyagina¹, A.V. Shevchenko¹, V.F. Prokof'yev¹, T.I. Pospelova², V.I. Konenkov¹ ¹Federal State Budgetary Scientific Institution «Scientific Institute of clinical and experimental lymphology» SB RAS, Novosibirsk, Russia ²The Novosibirsk State Medical University, Novosibirsk, Russia</p>
	<p>Workflow for exome sequencing in identification of de novo mutation in the <i>NCL6</i> gene D.A. Petukhova, N.R. Maksimova, P.I. Guryeva, V.S. Kaymonov, M.T. Savvina Laboratory of Genome Medicine, Clinics of Medical Institute, North-Eastern Federal University</p>