June 25 (Wednesday)

Time	Small Hall	Time	Exhibition Centre	Time	Music hall
09:00 – 13:00	**BGRS-2014.** **Systems computational biology** *Chairpersons:* *Prof. L. Kaderali, University of Technology Dresden, Germany* *Dr. A. Ratushny, Institute for Systems Biology, Seattle, USA* *Prof. V.P. Golubyatnikov, Sobolev Institute of Mathematics SB RAS, Novosibirsk, Russia*	**09:00 – 13:00**	**ISHG-2014.** **MICROSYMPOSIUM "TRANSLATIONAL MEDICINE"** *Chairpersons:* *Prof. M. Moshkin, Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia* *Prof. Y Iwakura, Research Institute for Biomedical Sciences, Tokyo University of Science, Tokyo, Japan*	**09:00 – 13:00**	**School SBB-2014.** **Section "Evolutionary bioinformatics"**
9:00- 9:45	**L. Kaderali** University of Technology Dresden, Germany **Systems biology of host-pathogen interactions** **KEYNOTE TALK**	09:00- 09:10	**M.P. Moshkin** **Opening remark**	9:00- 9:45	***Recommended to attend:*** **L. Kaderali** University of Technology Dresden, Germany **Systems biology of host-pathogen interactions** (Small Hall)
		09:10- 10:00	**Y. Iwakura** Tokyo University of Science, Japan **The role of Dectin-1 and Dectin-2 in the host defense against fungi and in intestinal immunity** **KEYNOTE TALK**		
9:45- 10:10	**M. Djordjevic**, K. Severinov, and M. Djordjevic Institute of Physics, University of Belgrade, Belgrade, Serbia **Modeling bacterial immune systems: CRISPR/CAS regulation**	10:00- 10:20	**M.Y. Pakharukova**, N.I. Ershov, D.S. Pirozhkova, V.A. Vavilin, K.S. Zadesenets, T.G. Duzhak, V.A. Mordvinov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Molecular mechanisms of metabolism, excretion and drug tolerance in human liver fluke *Opisthorchis felineus*** **KEYNOTE TALK**	9:50- 10:30	**C. Mitra** University of Hyderabad, Hyderabad, India **Monte Carlo methods for metabolic kinetics**
10:10- 10:35	**A. Barlukova**, S. Honoré, F. Hubert, M. Petit Aix-Marseille University, France **Dynamic instabilities of microtubules**				
		10:20- 10:40	**E. Kozhevnikova** Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Gut mucosal proteoglycan Mucin2 compromises animal sexual behavior**		
10:35- 11:00	**M.A. Duk,** A.M. Samsonov, M.G. Samsonova A.F. Ioffe Physical-technical Institute RAS, St.Petersburg, Russia **Mechanism of miRNA action defines the dynamical behavior of miRNA-mediated feed-forward loops**	10:40- 11:00	**P.N. Menshanov**, A.E. Akulov, N.N. Dygalo Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Hippocampal neurochemical profile in neonatal rats: effects of anesthesia**		

11:00-11:20	**Coffee break**				
11:20-12:05	**M. Binder** German Cancer Research Center, Division Virus-Associated Carcinogenesis, Heidelberg, Germany **Modelling of the hepatitis C virus life cycle** **KEYNOTE TALK**	11:20-11:40	**S.P. Medvedev** Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **The use of new genome engineering technologies for creation of isogenic amyotrophic lateral sclerosis cell model**	11:20-12:05	***Recommended to attend:*** **M. Binder** German Cancer Research Center, Heidelberg, Germany **Modelling of the hepatitis C virus life cycle** **KEYNOTE TALK**
12:05-12:30	**N. Ivanisenko,** E. Mishchenko, I. Akberdin, P. Demenkov, K. Kozlov, D. Todorov, V.V. Gursky, M.G. Samsonova, A.M. Samsonov, D. Clausznitzer, L. Kaderali, N.A. Kolchanov, V.A. Ivanisenko Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Mathematical model for subgenomic hepatitis C virus replication: impact of drug resistance**	11:40-12:00	**A.A. Nemudryi** Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Rescue of Brattleboro rat strain mutant phenotype using TALEN and CRISPR/Cas9 systems**		
		12:00-12:20	**O.S. Kozhevnikova,** E.E. Korbolina, N.I. Ershov, N.G. Kolosova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Aging of rat retina: transcriptome study**	12:10-13:00	**D. Liberles** Department of Molecular Biology, University of Wyoming, Laramie, USA **The lecture on sequence analysis pipelines to uncover lineage-specific evolution.**
12:30-12:45	**N. Egorov** InterLabService **Advanced achievements of Illumina next-generation sequencing**	12:20-12:40	**A.B. Salmina**, N.A. Malinovskaya, O.L. Lopatina, Y.K. Khomleva Krasnoyarsk State Medical University, Krasnoyarsk, Russia **Molecular markers and targets for diagnostics and treatment of neurodegeneration and neurodevelopmental disorders**		
13.00-14.00	**Lunch**				
14:00-17:15	**BGRS-2014. Systems computational biology** *Chairpersons:* *Prof. L. Kaderali, University of Technology Dresden, Germany* *Dr. A. Ratushny, Institute for Systems Biology, Seattle, USA* *Prof. V.P.Golubyatnikov, Institute of Mathematics SB RAS, Novosibirsk, Russia*	**14:00-17:15**	**BGRS-2014. Plant systems biology** *Chairperson:* *Prof. E. Salina, Institute of Cytology and Genetics SB RAS*	**14:00-17:20**	**ISHG-2014. MICROSYMPOSIUM "TRANSLATIONAL MEDICINE"** *Chairpersons:* *Prof. M. Moshkin, Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia* *Prof. S. A. Brown, Institute of Pharmacology and Toxicology, University of Zurich, Switzerland*

14:00-14:25	**K.N. Kozlov**, V.V. Gursky, I.V. Kulakovskiy, V.V. Muzhichenko, M.G. Samsonova St.Petersburg State Polytechnical University, St.Petersburg, Russia **Sequence -based model of gap gene regulatory network**	14.00-14.35	**M.V. Kapralov**, S.M. Whitney Plant Science Division, Research School of Biology, The Australian National University, Canberra, Australia **Evolution of Rubisco encoding genes in plants and its implications for Rubisco engineering in crops** **KEYNOTE TALK**	14:00-14:40	**S.A. Brown** Institute of Pharmacology and Toxicology, University of Zurich, Zurich, Switzerland **Mechanisms of circadian plasticity** **KEYNOTE TALK**
14:25-14:50	**E.V. Kashina,** D.Y. Oshchepkov, E.A. Oshchepkova, A.G. Shilov, E.V. Antontseva, D.P. Furman, V.A. Mordvinov Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Dioxin-mediated regulation of genes involved in cytokines production by macrophages**	14:35-14:55	P.M. Ponomarenko, **M.P. Ponomarenko** Children's Hospital Los Angeles, Los Angeles, USA **An empirical equilibrium equation of a gene response to auxin in plants allows to predict quantitatively the auxin response**	14:40-15:00	A. Baranova, L.Wang, T. Cui, **B. Veytsman**, S. Bruskin School of Systems Biology, George Mason University, Fairfax, USA **Attractor based classifiers for prediction of post-treatment survival in cancer and detection of non-malignant diseases**
14:50-15:15	**I.R. Akberdin**, T.V. Ermak, F.V. Kazantsev, T.M. Khlebodarova, V.A. Likhoshvai Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Kinetic modeling of pyrimidine biosynthesis is a first step to *in silico* bacterial cell**	14:55-15:15	F.V. Kazantsev, V.V. Chernova, A.V. Doroshkov, N.A. Omelyanchuk, **V.V. Mironova**, V.A. Likhoshvai Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Self-organization mechanisms for auxin distribution in the root apical meristem**	15:00-15:20	**O.E. Redina,** S.E. Smolenskaya, T.O. Abramova, L.N. Ivanova, A.L. Markel Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Genetic dissection of inherited hypertensive state in ISIAH rats using kidney gene-expression and genome mapping**
15:15-15:40	J. Narula, A. Kuchina, G.M. Süel and **O.A. Igoshin** Department of Bioengineering, Rice University, Houston, USA **Slowdown of cell growth acts as the signal triggering cellular differentiation**	15:15-15:35	**A.I. Perfilyeva** Siberian Institute of Plant Physiology and Biochemistry SB RAS, Irkutsk **The statistical analysis of level of an expression of a series of proteins of a plant of *Arabidopsis thaliana* in the conditions of stressful influence**	15:20-15:40	**E. Pozhilenkova** Krasnoyarsk State Medical University, Krasnoyarsk, Russia **Development of cellular models for translational research in neuropharmacology**
15:40-16:00 **Coffee break**					
16:00-16:25	**H. Binder,** H. Wirth, A. Arakelyan, K. Lembcke, E.S. Tiys, V. Ivanishenko, N.A. Kolchanov, A. Kononikhin, I. Popov, E.N. Nikolaev, L. Pastushkova, I.M. Larina Interdisciplinary Centre for Bioinformatics, Universität Leipzig, Leipzig, Germany **A machine learning analysis of urine proteomics in space-flight simulations**	16:00-16:20	**I.V. Pinsky,** A.T. Ivashchenko Al-Farabi Kazakh National University, Almaty, Kazakhstan **miRNAS binding to mRNAS of rice Myb genes**	16:00-16:20	**I.L. Erokhin** National Biotechnological Company, LLC, Moscow, Russia **Oncogenesis model based on the genome structure of multicellular organisms**

16:25-16:50	**A. Kursanov,** O. Solovyova, L. Katsnelson, K. Medvedev, A. Vasilyeva, N. Vikulova, V.S. Markhasin Institute of Immunology and Physiology UB of RAS, Yekaterinburg, Russia **Cardiac mechanics, calcium overload and arrhythmogenesis**	16:20-16:45	**Y. Kanayama,** H. Ikeda School of Agricultural Science, Tohoku University, Sendai, Japan **Metabolome and transcriptome analyses of a tomato introgression line containing a *Solanum pennellii* chromosome segment**	16:20-16:40	**B. Veytsman,** T.Cui, L. Wang, A. Baranova School of Systems Biology, George Mason University, Fairfax, USA **Systemic shifts in micro RNA landscape as a diagnostic and prediction tool**
16:50-17:15	**P.A. Ryzhkov,** N.S. Ryzhkova Scientific Research Institute of Biology SFEDU, Rostov-on-Don, Russia **Graph model of type I diabetes**	16:45-17:05	**D.A. Afonnikov**, M.A. Genaev, E.G. Komyshev, A.V. Doroshkov, T.A. Pshenichnikova, E.V. Morozova, A.V. Simonov ICG SB RAS, Novosibirsk, Russia **Computer high-throughput approaches to wheat phenotyping**	16:40-17:00	**L.N. Grinkevich** I.P. Pavlov Institute of Physiology of RAS, St. Petersburg, Russia **Epigenetic mechanisms of memory formation: the role of the histone acetylation and methylation in aversive learning**
17:15-17:50	**S.A. Lashin,** Yu.G. Matushkin Institute of Cytology and Genetics SB RAS; Novosibirsk State University, Novosibirsk, Russia **DEC: software tools for simulation evolution in diploid populations**	17:05-17:25	**A.V. Doroshkov**, U.S. Zubairova, M.A. Genaev, S.V. Nikolaev, T.A. Pshenichnikova, D.A. Afonnikov ICG SB RAS, Novosibirsk, Russia **Analysis of bread wheat leaf pubescence formation and diversity using image analysis technique and mathematical modeling**	**17:00-18:00**	**School BB-2014. Practical training** (ICG SB RAS: Lavrentyeva, 10) **F.V. Kazantsev** Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia
17:50-18:10	**O.V. Popik**, N.A. Kolchanov, V.A. Ivanisenko Center of neurobiology and neurogenetics, ICG SB RAS, Novosibirsk, Russia **Mathematical modeling of the interac-tions between molecular genetic systems**	17:25-17:45	**K.N. Sarsenbayev** Eurasian National University, Astana, Kazakhstan **Proteomic information of spring wheat varieties differing in resistance to infection after *Puccinia recondita* inoculation**		
		17.45-18.10	**E.M. Sergeeva**, E.M. Timonova, L.L. Bildanova, M.K. Koltunova, M.A. Nesterov, F. Magni, Z. Frenkel, J. Dolezel, J. Faris, P. Sourdille, C. Feuillet, E.A. Salina ICG SB RAS, Novosibirsk, Russia **The progress in physical mapping of chromosome 5b of bread wheat *Triticum aestivum***		
18:10-19:00	Foyer of Small Hall (House of Scientists SB RAS) POSTER SESSION				