CRISPR-2018

September 10-14, 2018

Novosibirsk

Organizers:

- E.N. Meshalkin National Medical Research Center
- Institute of Chemical Biology and Fundamental Medicine
- Federal Research Center Institute of Cytology and Genetics
- Academpark. Technopark of Novosibirsk Academgorodok
- Novosibirsk State University
- Lomonosov Moscow State University
- Kulakov Federal Research Center for Obstetrics, Gynecology, and Perinatology
- Koltzov Institute of Developmental Biology
- Engelhardt Institute of Molecular Biology
- Orekhovich Research Institute of Biomedical Chemistry
- Almazov National Medical Research Center
- National Medical Research Center of Cardiology
- Ministry of Healthcare of the Russian Federation

SCIENTIFIC PROGRAM OF THE CONGRESS

September 10		
8:30 - 17:00	Registration	
9:30 - 10:00	**Opening Ceremony**	
Plenary lectures. Morning session **Chairs:** academician V.V. Vlassov, academician A.A. Makarov, academician V.A. Tkachuk, professor S.M. Zakian		
10:00 - 10:40	APPLICATION OF CRISPR-MEDIATED SYSTEMS AND GENETICALLY ENCODED BIOSENSORS FOR THE CREATION AND INVESTIGATION OF CELLULAR MODELS OF NEURODEGENERATIVE DISEASES S.P. Medvedev, V.R. Kovalenko, S.M. Zakian	• Federal Research Centre Institute of Cytology and Genetics SB RAS • Institute of Chemical Biology and Fundamental Medicine SB RAS • E.N. Meshalkin National Medical Research Centre, Ministry of Healthcare of Russian Federation • Novosibirsk State University Novosibirsk, Russia
10:40 - 11:20	PROBLEMS OF SPECIFICITY AND EFFICIENCY OF TARGETABLE NUCLEASES IN GENOME EDITING D.O. Zharkov	• Institute of Chemical Biology and Fundamental Medicine SB RAS • Novosibirsk State University Novosibirsk, Russia
11:20 – 11:50	**Film devoted to the 30th anniversary of the laboratory of developmental epigenetics Presentation of the monograph "EDITING GENES AND GENOMES", the 2nd revised and expanded edition in 3 volumes**	
11:50 – 12:10	**Coffee break**	
12:10 - 12:50	DEVELOPING NEW CRISPR TOOLS FOR GENOME EDITING D.Yu. Guschin	Center for Genomic Engineering, Institute of Basic Science Daejeon, Republic of Korea

12:50 - 13:30	ISOGENIC SYSTEMS BASED ON IPSCS FOR MODELING NEURODEGENERATIVE DISEASES M.A. Lagarkova	Federal Research and Clinical Center of Physical-Chemical Medicine of Federal Medical Biological Agency Moscow, Russia
13:30 - 14:10	WHAT KIND OF MOUSE MODEL DO YOU NEED? USING THE CRISPR/CAS9 SYSTEM FOR MOUSE GENOME MODIFICATION B. Skryabin, T. Rozhdestvensky, L.V. Gubar, B. Seeger, H. Kaiser, A. Stegemann	Transgenic animal and genetic engineering Models (TRAM), Faculty of Medicine of the Westfalian Wilhelms-University Muenster, Germany
14:10 - 14:40	**Lunch**	
Plenary lectures. Afternoon session **Chairs:** academician V.V. Vlassov, academician A.A. Makarov, academician V.A. Tkachuk, professor A.V. Vasiliev, professor S.M. Zakian		
14:40 – 15:20	GENE THERAPY IN EPIDERMOLYSIS BULLOUS: FROM MODELS TO THE MODERN APPROACHES TO TREATMENT N.G. Gurskaya, E.A. Vorotelyak, A.V. Vasiliev	Koltzov Institute of Developmental Biology Moscow, Russia
15:20 - 16:00	AAV BASED VECTORS FOR *IN VIVO* GENOME EDITING M.P. Perepelkina	BIOCAD Biotechnology Company Saint Petersburg, Russia
16:00 - 18:30	**Round table №1** **“Current problems of translating gene and cell technologies from laboratory to clinic”**	
	Supermoderators: academician V.A. Tkachuk, professor A.V. Vasiliev, DSc E.V. Parfyonova, professor S.A. Boitsov	
	Moderators: professor D.A. Kudlai, PhD O.V. Grigorieva, professor O.L. Barbarash, DSc I.V. Lyadova, PhD R.V. Deev	
	Discussion topics: 1. Revolution in biomedicine and the adequacy of scientific research support in the Russian Federation; 2. Problems of scientific research organization and overcoming barriers; 3. Insufficient development of scientific infrastructure in the Russian Federation; 4. Problems of pilot clinical studies organization; 5. Problems of post registration development of biomedical products in the Russian Federation; 6. The system of legislative and regulatory framework of the biomedical studies in the Russian Federation and its blind spots.	
19:00 - 23:00	**Welcome party** **Jazz**	
September 11		
9:00 - 17:00	Registration	
Plenary lectures **Chairs:** professor D.O. Zharkov, MD, PhD B.V. Skryabin, professor O.I. Lavrik		
9:30 - 10:10	DNA REPAIR – A KEY MECHANISM TO MAINTAIN GENOME STABILITY O.I. Lavrik	Institute of Chemical Biology and Fundamental Medicine SB RAS Novosibirsk, Russia
10:10 - 10:50	CRISPR/CAS9 FOR MOUSE GENOME EDITING *IN VIVO* L.M. Fedorov	Director of OHSU Transgenic Mouse models Shared Resource, Oregon Health & Science University, USA

10:50 - 11:30	PRECISION PLANT BREEDING USING CRISPR-CAS9 TECHNOLOGY S. Svitashev	Corteva Agriscience – Agriculture Division of DowDuPont USA
11:30 - 11:50	**Coffee break**	
11:50 – 12:30	ADAPTATION OF CRISPR/CAS9 GENOME EDITING SYSTEM FOR THE TASKS OF MEDICAL GENOMICS M.N. Karagyaur	• Institute of Regenerative Medicine, Medical Research and Education Center, Lomonosov Moscow State University • Faculty of Medicine, Lomonosov Moscow State University Moscow, Russia
Session №1 "Applying gene and genome editing to model and study normal and pathological processes" **Chairs:** Professor M.A. Lagarkova, PhD M.N. Karagyaur, PhD S.P. Medvedev		
12:30 – 12:50	GENERATION OF 293FT CELL LINES DEFICIENT IN BASE EXCISION REPAIR AND MISMATCH REPAIR BY CRISPR/CAS9-MEDIATED GENOME EDITING D. Kim, L. Kulishova, N. Torgasheva, D. Zharkov	Institute of Chemical Biology and Fundamental Medicine SB RAS Novosibirsk, Russia
12:50-13:05	NEW TOOLS AND STRATEGIES FOR GENOME EDITING IN CELL LINES D.A. Madera	BIOCAD Biotechnology Company Moscow, Russia
13:05 – 13:25	CRISPR/CAS9-MEDIATED OBTAINING OF GENETICALLY MODIFIED HUMAN PLURIPOTENT STEM CELLS EXPRESSING HIF – HYPOXIA INDUCIBLE FACTOR M.K. Zhiven', I.S. Zakharova, A.M. Smirnova, A.I. Shevchenko, K.E. Orishchenko, E.A. Elisaphenko, S.M. Zakian	• Institute of Cytology and Genetics • Institute of Chemical Biology and Fundamental Medicine • E.N. Meshalkin National Medical Research Centre, Ministry of Healthcare of Russian Federation Novosibirsk, Russia
13:25 – 13:45	CRISPR/CAS9 MEDIATED DOWNREGULATION AND ACTIVATION OF *XIST* GENE A.I. Shevchenko, I.S. Zakharova, N.A. Rifel, E.V. Grigor'eva, S.P. Medvedev, S.M. Zakian	• Institute of Cytology and Genetics • Institute of Chemical Biology and Fundamental Medicine • E.N. Meshalkin National Medical Research Centre, Ministry of Healthcare of Russian Federation Novosibirsk, Russia
13:45 – 14:05	CRISPR/CAS9-MEDIATED GENOME KNOCKOUT AS A PROMISING APPROACH TO FUNCTIONAL ANALYSIS OF SHORT REGULATORY RNA: A CASE STUDY OF SMALL NUCLEOLAR RNA J.A. Filippova, A.M. Matveeva, E.S. Juravlev, M.M. Timofeeva, E.A. Balakhonova, V.A. Richter, D.V. Semenov, G.A. Stepanov	• Institute of Chemical Biology and Fundamental Medicine of the Siberian Branch of the Russian Academy of Sciences • Novosibirsk State University Novosibirsk, Russia
14:05 – 14:35	**Lunch**	
14:35 - 15:20	**Poster session №1** **Moderators:** PhD S.P. Medvedev, PhD A.I. Shevchenko, professor N.B. Rubtsov, PhD M.N. Karagyaur	

Session №1. Continuation. "Applying gene and genome editing to model and study normal and pathological processes" **Chairs:** professor M.A. Lagarkova, PhD M.N. Karagyaur, PhD S.P. Medvedev		
15:20 - 15:40	EDITING A SILENT MUTATION IN EXON 7 (C. 840 C>T) OF *SMN2* AS A POTENTIAL APPROACH TO CORRECT SPINAL MUSCULAR ATROPHY K.R. Valetdinova, V.S. Ovechkina, S.M. Zakian	• Institute of Cytology and Genetics • Institute of Chemical Biology and Fundamental Medicine • E.N. Meshalkin National Medical Research Centre, Ministry of Healthcare of Russian Federation • Novosibirsk State University Novosibirsk, Russia
15:40 – 16:00	CRISPR/CAS9 GENOME EDITING IN THE STUDIES OF CELL MODELS OF PARKINSON'S DISEASE A.S. Vetchinova, E.Yu. Fedotova, N.Yu. Abramycheva, E.V. Novosadova, I.A. Grivennikov, S.N. Illarioshkin	• Research Center of Neurology • Institute of Molecular Genetics of the Russian Academy of Sciences Moscow, Russia
16:00 – 16:20	GENERATION OF HUNTINGTON'S DISEASE CELL MODELS E.V. Grigor'eva, A. Surumbayeva, T.B. Malankhanova, E. Kiseleva, A.A. Malakhova, Zakian S.M.	• Institute of Cytology and Genetics, Siberian Branch of the Russian Academy of Sciences • E.N. Meshalkin National Medical Research Centre • Institute of Chemical Biology and Fundamental Medicine, Siberian Branch of the Russian Academy of Sciences • Novosibirsk State University Novosibirsk, Russia
16:20 - 16:40	HUNTINGTON'S DISEASE MODELING BASED ON ISOGENIC IPSC LINES USING CRISPR/CAS9 T.B. Malankhanova, A.K. Surumbayeva, E.V. Grigor'eva, A.A. Malakhova, S.M. Zakian	• Research Center Institute of Cytology and Genetics, the Siberian Branch of the Russian Academy of Sciences • E.N. Meshalkin National Medical Research Centre • Institute of Chemical Biology and Fundamental Medicine, the Siberian Branch of the Russian Academy of Sciences • Novosibirsk State University Novosibirsk, Russia
16:40 - 17:00	GECKO LIBRARY SCREENING FOR IDENTIFICATION OF HIV-1 AND HTLV-1 REPLICATION FACTORS A.A. Zotova, A.A. Atemasova, E.V. Lopatukhina, A.N. Vzorov, A.V. Filatov, D.V. Mazurov	• Lomonosov Moscow State University • NRC Institute of Immunology FMBA of Russia • Institute of Gene Biology RAS Moscow, Russia
17:00 - 17:20	**Coffee break**	
17:30 - 19:00	**Round table №2** **"Genome editing comes of age: achievements, barriers and futures"**	
	Moderators: professor S.M. Zakian, academician V.V. Vlassov, professor E.A. Pokushalov, professor D.O. Zharkov, PhD S.P. Medvedev, DSc A.A. Karpenko, PhD P.O. Bogomolov, professor A.V. Kochetov, professor K.I. Agladze, professor N.F. Salakhutdinov	

	Discussion topics: 1. CRISPR/Cas9 is a precise “genome surgery” tool or a random mutation generator; 2. Just an editing? Extended applications of CRISPR-mediated systems in biotechnology and medicine; 3. Genome editing and hereditary diseases. Biological and ethical problems of using genome editing on embryos and adults; 4. Genome editing and cell therapy - clinical usage prospects; 5. Genome editing in selection and agriculture; 6. Search for and generating alternative genome editing tools.	
September 12		
8:30 - 17:00	Registration	
Plenary lectures **Chairs:** PhD L.M. Fedorov, PhD O.A. Gusev		
09:00 - 09:40	DEVELOPMENT AND IMPROVEMENT OF CRISPR/CAS9 SYSTEMS FOR YEAST GENOME EDITING M.I. Kotlov, D.K. Armyaninova, D.S. Karpov	Engelhardt Institute of Molecular Biology, Russian Academy of Sciences Moscow, Russia
09:40 - 10:20	USING CRISPR/CAS9 TECHNOLOGY TO CREATE CELL MODELS OF CARDIOVASCULAR DISEASES A.B. Malashicheva	Almazov National Medical Research Center Saint Petersburg, Russia
10:20 – 11:00	EFFICACY OF CRISPR/CAS9 SYSTEMS FOR INDUCING THE CHROMOSOME ABERRATION USING MODEL ANIMALS O.L. Serov	Federal Research Center Institute of Cytology and Genetics, Siberian Branch of the Russian Academy of Sciences Novosibirsk, Russia
11:00 - 11:20	**Coffee break**	
Parallel session №2. “CRISPR/Cas9 system and plant genome editing” **Chairs:** PhD S.K. Svitashev, professor A.V. Kochetov, DSc E.A. Salina		
11:20 – 11:40	AN INSIGHT INTO GENE EDITING TECHNOLOGIES AND ROLE OF CRISPR IN PLANT IMPROVEMENT S. Das Dangol, M.E. Caliskan, A. Bakhsh	Department of Agricultural Genetic Engineering, Faculty of Agricultural Science and Technologies, Omer Halisdemir University Nigde, Turkey
11:40 – 12:00	SPECIAL ASPECTS OF A CRISPR/CAS9 SYSTEM IN VARIOUS PLANTS A.D. Yurina, A.M. Batyreva, M.A. Kusnetzova, M.V. Lebedeva, N.E. Zlobin, A.V. Babakov, V.V. Taranov, A.A. Timoshenko, N.V. Davydova, A.K. Gaponenko, O.N. Zubko, M.N. Polyakova, S.A. Pastukhov, N.V. Madzharova, L.N. Konovalova, S.R. Strelnikova, R.A. Komakhin, K.S. Gavrilova, A.M. Kamionskaya, K.G. Skryabin	All-Russia Research Institute of Agricultural Biotechnology Moscow, Russia
12:00 – 12:20	THE DISCOVERY OF FUNCTIONAL SMALL OPEN READING FRAMES OF PLANTS USING MODEL PLANT, *PHYSCOMITRELLA PATENS* A. Knyazev, I. Kirov, A. Mamaeva, D. Kharlampieva, V. Zgoda, V. Lazarev, V. Govorun, I. Fesenko	Москва Shemyakin and Ovchinnikov Institute of Bioorganic Chemistry Moscow, Russia

12:20 – 12:40	A STUDY OF CELL AGGREGATION IN *ARABIDOPSIS THALIANA* SUSPENSION CULTURE WITH *GAUT1* GENE KNOCKOUT Yu.V. Sidorchuk, A.S. Shchelokova, N.V. Permyakova, E.V. Deineko	The Federal Research Center Institute of Cytology and Genetics of the Siberian Branch of the Russian Academy of Sciences Novosibirsk, Russia
12:40 – 13:00	APPLICATION OF CAS9/GRNA GENOME EDITING SYSTEM FOR POTATO *DE NOVO* DOMESTICATION K.A. Ivanova, S.V. Gerasimova, A.A. Egorova, E.G. Komyshev, M.A. Genaev, D.V. Domrachev, K.A. Koloshin, A.V. Kochetov, E.K. Khlestkina	The Federal Research Center Institute of Cytology and Genetics of the Siberian Branch of the Russian Academy of Sciences Novosibirsk, Russia
13:00 – 13:20	ESTABLISHMENT OF NEW GENE EDITING CRISPR/CAS9 TECHNOLOGY FOR CREATION OF ELITE BARLEY CULTIVARS IN KAZAKHSTAN AND UK O.I. Kershanskaya, J. Kuli, A. Maulenbai, D. Nelidova, K.R. Uteulin, S.N. Nelidov, J. Stephens	Institute of Plant Biology and Biotechnology Almaty, Kazakhstan
Parallel session № 3. "Structural biology and evolution of CRISPR/Cas9 systems" **Chairs:** professor D.O. Zharkov, PhD D.Yu. Guschin		
11:20 – 11:40	THE POWER LAW OF CRISPR-CAS SYSTEMS Ye. Pavlova, A. Morozov, D. Paez-Espino, I. Belalov	• Winogradsky Institute of Microbiology, Research Center of Biotechnology RAS • Faculty of Mechanics and Mathematics, Moscow State University Moscow, Russia
11:40-11:50	MODERN TOOLS FOR GENOME EDITING N.M. Novozhilova	Production Specialist, Thermo Fisher Scientific
11:50 – 12:10	STRUCTURE OF CRISPR/CAS SYSTEMS IN THE GENOME SYSTEMS IN THE GENOME STRAIN *STAPHYLOCOCCUS AUREUS* TW20 AND SPECTRUM OF FHAGES RAS IDENTIFIED BY CRISPR-CASSETTE V.A. Kuzminova, A.Yu. Borisenko, Yu.P. Dzhioev, N.P. Peretolchina, V.I. Stepanenko, Yu.A. Zemlyanskaya, N.A. Arefieva, V.P. Salovarova, A.A. Pristavka, G.V. Yurinova, V.I. Zlobin	Irkutsk State University Irkutsk, Russia
12:10 – 12:30	NUCLEOTIDE MODIFICATIONS IN SGRNAS BIAS CAS9 TOWARDS NICKASE ACTIVITY E.S. Juravlev, I.P. Vokhtantsev, L.M. Kulishova, V.A. Richter, D.O. Zharkov, G.A. Stepanov	Institute of Chemical Biology and Fundamental Medicine SB RAS Novosibirsk, Russia
12:30-12:45	GENE EXPRESSION ANALYSIS USING NANOSTRING TECHNOLOGY A.E. Alexeeva	Leading specialist in molecular genetics, "BioVitrum"
12:45 – 13:05	THE EFFECT OF DNA DAMAGE IN PROTOSPACER AND PAM ON CLEAVAGE EFFICIENCY BY CAS9/SGRNA SYSTEM I.P. Vokhtantsev, A.V. Endutkin, L.M. Kulishova, D.V. Kim, D.O. Zharkov	Institute of Chemical Biology and Fundamental Medicine SB RAS Novosibirsk, Russia

13:05 – 13:25	BACTERIAL ARGONAUTE PROTEINS AS POTENTIAL TOOLS FOR GENOME EDITING A.V. Kuzmenko, D.A. Yudin, E.V. Kropocheva, A.V. Olina, A.A. Kotov, S.S Ryazansky, D.M. Esyunina, A.A. Aravin, A.V. Kulbachinskiy	• Institute of Molecular Genetics, Russian Academy of Sciences • Department of Molecular Biology, Biological Faculty, Lomonosov Moscow State University Moscow, Russia
13:25 - 14:00	**Lunch**	
14:00 – 14:40	**Poster session №2** **Moderators:** PhD S.P. Medvedev, PhD A.I. Shevchenko, professor N.B. Rubtsov, PhD M.N. Karagyaur	
Session №4. "CRISPR/Cas9 applications in biotechnology and production of new therapeutic agents" **Chairs:** academician V.V. Vlassov, academician V.A. Tkachuk, professor A.V. Vasiliev		
14:40-14:55	RECOMBINANT VIRAL VECTORS FOR GENE THERAPY A.V. Prokofiev	Head of Bioprocess Group BIOCAD Biotechnology Company Moscow, Russia
14:55 – 15:15	GENOMIC KNOCKOUT OF ANTIVIRAL RESISTANCE FACTORS IS THE WAY TO CREATE CELL LINES FOR THE PRODUCTION OF THE INFLUENZA VIRUS STRAINS G.A. Stepanov, M.V. Sergeeva, S.P. Medvedev, A.A. Malakhova, E.D. Andreeva, A.-P.S. Shurygina, A.N. Gorshkov, M.M. Timofeeva, E.A. Balakhonova, M.P. Grudinin, V.A. Richter, A.B. Komissarov	Institute of Chemical Biology and Fundamental Medicine SB RAS Novosibirsk, Russia
15:15-15:25	METHODS OF THE ANALYTICAL PROCESSING OF EXPERIMENTAL DATA Yu.V. Vyatkin	Head of Bioinformatic Technologies Department, "AcademGene" Novosibirsk, Russia
15:25 – 15:45	KNOCKOUT OF THE UROKINASE RECEPTOR GENE PLAUR BY CRISPR/CAS9 TO REDUCE THE PROLIFERATION AND INVASION OF NEUROBLASTOMA K.D. Rysenkova, E.V. Semina, M.N. Karagyaur, A.A. Shmakova, K.A. Rubina, V.A. Tkachuk	Faculty of Fundamental Medicine, Moscow State University Moscow, Russia
15:45 - 16:05	**Coffee break**	
16:05 – 16:25	GENERATION OF NK-CELL LINES WITH ENHANCED THERAPEUTIC POTENTIAL S.V. Kulemzin, A.A. Knyazeva, A.S. Smagina, T.N. Belovezhec, A.A. Gorchakov, A.V. Taranin	Institute of Molecular and Cellular Biology Novosibirsk, Russia
16:25-16:40	APPLICATION OF HIGH-CONTENT ANALYSIS IN CRISPR-CAS9 LIBRARY SCREENING F. Klingberg	Technical Sales Specialist Imaging, Microscopy & HCA Solutions
16:40 – 17:00	TARGETED SINGLE NUCLEOTIDE EDITING ALLOWS CORRECTION OF HUNDREDS OF PATHOGENIC VARIANTS IN HEREDITARY DISEASES A.V. Lavrov, G.G. Varenikov, E.V. Kondrateva, M.Yu. Skoblov	Research Centre for Medical Genetics Moscow, Russia

17:00-17:10	NIKON SOLUTIONS FOR HIGH-SPEED CONFOCAL AND MULTIPHOTON MICROSCOPY T.A. Smirnova	Production Specialist "Nikon"
17:10 – 17:30	ON THE ISSUE OF THE LEGAL STATUS OF HUMAN EMBRYOS AS AN OBJECT OF BIOMEDICAL RESEARCH A.O. Zhdanova, A.L. Rusanov, A.V. Lisitsa, N.G. Luzgina	Research and Production Association "Perspectiva" Novosibirsk, Russia
September 13		
8:30 - 17:00	Registration	
Plenary lectures **Chairs:** professor D.O. Zharkov, professor S.M. Zakian		
09:00 - 09:40	MOLECULAR MECHANISM OF CRISPR-CAS AND STRUCTURE-GUIDED DEVELOPMENT OF GENOME-EDITING TOOLS O. Nureki	The University of Tokyo Tokyo, Japan
09:40 - 10:20	CRISPR/CAS9 SYSTEMS DEVELOPMENT AND APPLICATION IN NON-MODEL ORGANISMS WITH THE EXAMPLE OF INSECTS RESISTANT TO COMPLETE DEHYDRATION O. Gusev, Y. Miyata, Sh. Tokumoto, T. Kikawada	Kazan Federal University Kazan, Russia
Session №5. "CRISPR/Cas9 system and animal genome editing" **Chairs:** MD, PhD B.V. Skryabin, PhD L.M. Fedorov, professor O.L. Serov		
10:20 – 10:40	GENERATION OF BASIC LINES OF TRANSGENIC MICE BY CRISPR/CAS9-MEDIATED HOMOLOGOUS RECOMBINATION FOR CONSEQUENT EFFECTIVE AND DETERMINED TRANSGENESIS BY MEANS OF RMCE (RECOMBINASE MEDIATED CASSETTE EXCHANGE) M.V. Shepelev, S.V. Kalinichenko, E.K. Saakian, A.V. Deykin, I.V. Korobko	Institute of Gene Biology, Russian Academy of Sciences Moscow, Russia
10:40 – 11:00	TRANSGENIC MICE WITH FUNCTIONAL REPLACEMENT OF THE ANTITHROMBIN III GENE BY A HOMOLOGOUS HUMAN GENE OBTAINED BY CRISPR / CAS9-MEDIATED HOMOLOGOUS RECOMBINATION M.V. Shepelev, S.V. Kalinichenko, E.K. Saakian, A.V. Deykin, V.A. Kalmykov, I.V. Korobko	Institute of Gene Biology, Russian Academy of Sciences Moscow, Russia
11:00 – 11:30	GENE EDITING FOR EVERY LAB WITH MERCK CRISPR SYSTEM J. Demeter	Field Marketing Manager Life Science | Emerging Markets EE & Russia+
11:30 - 11:50	**Coffee break**	
11:50 – 12:10	CRISPR/CAS9 FOR STUDYING OF CHROMATIN ARCHITECTURAL PROTEINS OF *DROSOPHILA MELANOGASTER* N. Zolotarev, O. Maksimenko, P. Georgiev	Institute of Gene Biology, Russian Academy of Sciences Moscow, Russia

12:10 – 12:30	GENERATION OF MICE WITH CHROMOSOME ABERRATIONS OF THE *CNTN6* GENE BY USE OF CRISPR/CAS9 TECHNOLOGY AND THEIR CHARACTERISTICS A.N. Korablev, I.E. Pristyazhnyuk, Y.M. Minina, I.A. Serova, V.S. Fishman, T.S. Rozhdestvensky, L. Gubar, B.V. Skryabin, O.L. Serov	• Institute of Cytology and Genetics, Novosibirsk, Russia • Research Institute of Medical Genetics, Tomsk National Research Medical Center, Tomsk, Russia
Session №6. "Improvement of targeted gene and genome editing methods" **Chairs:** PhD D.Yu. Guschin, PhD S.P. Medvedev		
12:30 – 12:50	INCREASING HOMOLOGY-DIRECTED REPAIR EFFICIENCY DURING GENOME EDITING WITH CRISPR-CAS9 A.A. Anuchina, S.A. Smirnikhina, Lavrov A.V.	FSBI "Research Centre for Medical Genetics" Moscow, Russia
12:50 – 13:10	FUNCTIONAL CHARACTERISTICS OF KNOCKOUT CELLS GENERATED VIA KNOCKIN OF GPI-ANCHORED EPITOPE TAGS A.A. Atemasova, E.V. Lopatukhina, A.A. Zotova, D.V. Mazurov	Lomonosov Moscow State University, Faculty of Biology Moscow, Russia
13:10 – 13:30	NEW METHOD OF SELECTION OF EDITED CELLS GENERATED VIA KNOCKIN OF GPI-ANCHORED EPITOPE TAGS D.V. Mazurov	• Institute of Gene Biology, Russian Academy of Sciences • National Research Center – Institute of Immunology Federal Medical-Biological Agency of Russia Moscow, Russia
13:30 – 13:50	CRISPR/CAS9 DELIVERY IN FORM OF RIBONUCLEOPROTEIN COMPLEXES: A NOVEL APPROACH TO INCREASE EDITING EFFICIENCY E.I. Ustyantseva, L.M. Kulishova, S.P. Medvedev, D.O. Zharkov, S.M. Zakian	• Federal Research Center Institute of Cytology and Genetics, Siberian Branch of the Russian Academy of Sciences • Institute of Chemical Biology and Fundamental Medicine SB RAS • E. Meshalkin National Medical Research Center, Ministry of Health of the Russian Federation • Novosibirsk State University Novosibirsk, Russia
13:50 – 14:10	ENHANCING CRISPR/CAS9-MEDIATED HOMOLOGY-DIRECTED REPAIR BY EXPRESSING DNA REPAIR PROTEINS A.V. Smirnov, A.M. Yunusova, N.R. Battulin	Institute of Cytology and Genetics of the Siberian Branch of the Russian Academy of Sciences Novosibirsk, Russia
14:10 - 14:50	**Lunch**	
14:50 – 15:30	**DISCUSSION OF POSTER SESSION** PhD S.P. Medvedev, PhD A.I. Shevchenko, professor N.B. Rubtsov, PhD M.N. Karagyaur	
15:30 – 16:10	**Concluding remarks**	
16:10 – 16:30	**Closing party**	
17:00	**Visiting the Novosibirsk Opera and Ballet Theater** **Departure from the Technopark at 17-00. Return from the theater at 22-15**	
September 14	**Departure day**	