### **Russian Congress with International Participation**

# "Molecular Basis of Clinical Medicine: State-of-the-Art and Perspectives"

Saint-Petersburg, Russian Federation, June 6 - 10, 2010

# **Programme**

#### June 7

Congress Hall	
	Opening Ceremony
9.30 - 11.10	Memorial Session Dedicated to the Memory of Prof. Eugeniy I. Shvarts, a Founder of Molecular Medicine in Russia
11.10 - 11.30	Coffee-break
	Plenary Session 1
11.30 - 14.00	Chairpersons: Novikov P.V., Govorun V.M., Arndt Rolfs, Maj A.Hulten
	Molecular Medicine as New Field of Diagnosis, Treatment and Prevention of Hereditary and Non-
11.30 - 12.00	hereditary diseases. Novikov P.V. (Moscow)
12.00 - 12.30	Proteogenomic Technologies as New Methodology of Molecular Medicine. <b>Govorun V.M.</b> (Moscow)
12.30 - 13.15	The Impact of Whole Genome Testing on Laboratory Services in Europe.  Hastins Rosalind (Oxford, UK)
13.15 - 14.00	On the Origin and Diagnostics of Common Chromosome Disorders. <b>Hulten Maj A.</b> ( <i>Warwick University, UK</i> )
14.00 - 15.00	Lunch
15.00 - 17.00	Plenary Session 2
15.00 - 15.30	Genetics in Human Reproduction.  Kuliev Anver M. (Chicago, USA)
15.30 - 16.00	Epigenetics and Human Reproduction.  Lebedev Igor N. (Tomsk)
16.00 - 16.30	Rare Diseases in Russia: Problems and Prospects.  Zakharova E.Ju. (Moscow)
16.30 - 17.00	Predictive Medicine: The State-of-the Art and Prospective Developments.  Baranov V.S. (St. Petersburg)
17.00 - 17.30	Coffee-break
17.30 - 18.30	Genetics in Stroke.  Arndt Rolfs (Germany)

Red Hall D	
15.15 - 19.00	Workshop "Progress in Diagnosis and Treatment of Lysosome diseases"

### June 8

	Congress Hall	
9.00 - 10.00	Lecture  Hereditary and Metabolic Diseases, Treatment.  Arndt Rolfs (Germany)	
10.15 - 12.00	Plenary Session 3	
10.15 - 10.45	DNA Diagnostics of Hereditary Diseases: Potentials and Perspectives. <b>Polyakov A.V.</b> (Moscow)	
10.45 - 11.15	Human Chimera and Twins in Current Reproductive Cytogenetics  Golubovsky Michael.D. (Berkeley, USA)	
11.15 - 11.45	Ethical Issues in Molecular Medicine.  Izhevskaya V.L. (Moscow)	
11.45 - 12.00	Opinion of Medical Professionals and Patients on Some Genetic Technologies. Medical Sociological and Ethical Analysis.  Mikirtchian G.L. (St. Petersburg)	
12.00 - 12.20	Coffee-break	
12.20 - 14.00	Workshop "Mitochondrial Diseases"	
14.00 - 15.00	Lunch	
15.00 - 19.00	Workshop "Hereditary myopathies"	

	Read Hall A
	Symposium Education and Integration in Medical Genetics and in Molecular Genetics
15.00 - 17.00	Chairpersons:
	Novikov P.V., Nazarenko L.P., Coviello D.
	Medical Genetics Education: Organization Models And Examples from Undergraduate Medical
15.00 - 15.45	Students Level to Continuing Medical Education.
	Coviello Domenico (Genoa, Italy)
	Medical Genetics Education and Training for Medical Students, Genetic Counseling Students, and
15.45 - 16.30	Residents.  Thurston Virginia C. (Indianapolis, USA)
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16.30 - 17.00	Methods for Integrating Medical Genomics into a Medical School Curriculum.  Thurston Virginia C. (Indianapolis, USA)
	Symposium Education and Integration in Medical Genetics and in Molecular Genetics
	(continuation)
17.15 - 19.00	·
	Chairpersons: Asanov A.Ju., Maslennikov A.B., Petrin A.N.
	Teaching in Medical Genetics in Russian Federation.
17.15 - 17.35	Asanov A.Ju. (Moscow)
	Teaching in Medical Genetics. Let Us Open New Doors to Success.
17.35 - 17.50	Mkheidze M.O. (St. Petersburg)
17.50 10.05	Experience of teaching in medical genetics in St. Petersburg Pediatric Medical Academy.
17.50 - 18.05	Imyanitov E. N. (St. Petersburg)
18.05 - 18.20	From classical genetics to molecular genetics. Problems and teaching issues.
18.03 - 18.20	Korzhanevskaya M.A. (St. Petersburg)
	From medical genetics to molecular medicine. Reality and Prospects of Continuing Medical
18.20 - 18.35	Education.
	Kharchenko T.V. (St. Petersburg)
18.35 - 18.50	Value of clinical information in molecular genetic Diagnosis.  Maslennikov A.B. (Novosibirsk)
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18.00 - 19.00	Trial of generation of electronic tex book on molecular and translational medicine.  Malinivskaya N.A. (Krasnoyarsk)
	wianinyskaya 11.A. (Krushoyursk)

Red Hall B	
15.00 - 17.00	Symposium Molecular Oncohematology
	Chairpersons:
	Afanasyev B.V., Wagemaker Gerard
15.00 - 15.15	Allogeneic hematopoietic stem cell transplantation in treatment of inherited diseases. <b>Afanasyev B.V.</b> (St. Petersburg)
15.15 - 15.45	Genetic modification of hematopoietic stem cells for advanced cell therapy of inherited disorders.  Gerard Wagemaker (Rotterdam, Netherlands)
15.45 - 16.00	MLL rearrangement in acute leukemias of chuldren. <b>Tsaur G.A.</b> (Ekaterinburg)
16.00 - 16.15	Mutations of FLT3 and NPM1 genes in patients with AML, MDS and MDS/MPN.  Martynkevich I.S. (St. Petersburg)
16.15 - 16.30	Prevention of false-positive results for detection of MRD after allogeneic HSCT.  Zagrivnaya M. V. (St. Petersburg)
16.30 - 16.40	HLA gene polymorphism in Rissian populations. <b>Aljansky A.</b> (St. Petersburg)
16.40 - 16.50	Cytogenetic and Molecular Genetics Diagnostics of Hemoblastosis in Saratov Region <b>Dzhumagazieva D.S.</b> (Saratov)
16.50 - 17.00	FISH technologies in oncology.  Loginova Ju.A. (St. Petersburg)
17.15 - 19.00	Symposium Innovative Technologies Roche in Genomics and Molecular Medicine

Red Hall C	
15.00 - 17.00	Workshop "Rare disease in orthopedy"
	Symposium Issues of Metrology, Certification, and Standartization in Molecular Diagnosis
17.15 - 19.00	Chairpersons: Emanuel V.L., Hastings Rosalind
17.15 - 17.45	Organization and Quality in the Provision of Medical Genetic Services in Europe.
	Coviello Domenico (Genoa, Italy)
17.45 - 18.15	Quality Control in Genetic laboratories in Europe.
	Hastings Rosalind (UK)

	Red Hall D	
15.00 - 17.00	Symposium Proteomic Technologies as New Methodology of Molecular Medicine	
	Chairperson:	
	Govorun V.M.	
	Symposium Current Approaches to Assessing Mutagenic Effects of Xenobiotics	
17.15 - 19.00	Chairpersons:	
	Vorobtsova I. E., Slozina N.M.	
17.15 - 17.30	Human genetic susceptibility to radiation and chemical effects:own and literature data.	
17.15 17.50	Telnov V.I. (Ozersk)	
	The role of cytogenetic studies in assessment of late biological effects of ionizing radiation in	
17.30 - 17.45	humans.	
	Vorobtsova I.E. (St. Petersburg)	
	Effect of polymorphism of XRCC1 and XRCC3 genes on chromosome aberration level in uran	
17.45 - 18.00	mining labors.	
	Vasilyeva Z. Zh. (St. Petersburg; Alma-Ata, Kazakhstan; Galveston, USA)	
	Frequency of mutations in Tp53 gene and characteristics of the cell cycle under chronic radiation	
18.00 - 18.15	exposure in humans.	
	Ploshchanskaya O.G. (Chelyabinsk)	
18.15 - 18.30	Cytogenetic effects of ionizing radiation.	
10.13 10.30	Timoshevsky V.A. (Tomsk)	
18.30 - 18.40	Indirect adaptive response in mixed culture of different sex donors' lymphocytes.	
16.30 - 16.40	Kolesnikova I.S. (St. Petersburg)	
18.40 - 18.50	DNA comet analysis in assessment of damage effects of exogenous toxicants in individual cells.	
10.40 - 10.30	Vaschenko A.A. (Volgograd)	
18.50 - 19.00	Genome instability in microdeletion syndrome.	
	Savina N.V. (Minsk, Belorussia)	

	Room 5	
10.15 - 14.00	Round Table for patients/parents organizations	
14.00 - 15.00	Lunch	
15.00 - 17.00	Symposium Molecular Genetic Basis of Lipid Metabolism Disorders	
	Symposium Molecular genetic basis of sports medicine	
17.15 - 19.00	Chairpersons:	
	Didur M.D., Matveev S.V., Ahmetov I.I.	
17.15 - 17.30	Molecular genetic diagnostics of predisposition to sports.	
17.13 - 17.30	Ahmetov I.I. (Kazan)	
	Estimation of specialization and individualization of training process of elite athletes based on	
17.30 - 17.45	genetic programmes.	
	Egorov V.M. (St. Petersburg)	
17.45 - 18.00	Genetic testing in sports – strategic direction of sports medicine.	
177.10 10100	Lidov P.I. (Moscow)	
10.00 10.10	Role of hereditary factors involved in the pathological stress-induced transformation of the	
18.00 - 18.10	"Athletes heart".	
	Linde E.V. (Moscow)	
18.10 - 18.20	The dependence of cardiorespiratory system reactions on exercise hypoxia of gene polymorphisms.	
	Drozdovskaya S.B. ( <i>Ukraine, Kiev</i> )  Is there effect of the ACTN3 R577X polymorphism on high athletic achievements?	
18.20 - 18.30	Pushkarev V.P. (Chelyabinsk)	
	Polymorphisms of myogenic factor 6 and alpha-actinin-3 genes and their association with physical	
18.30 - 18.40	activity and human skeletal muscle structure.	
	Druzhevskaya A.M. (St. Petersburg)	
	Polymorphism of genes associated with metabolism impairment and nutrition of athletes.	
18.40 - 18.50	Topanova A.A. (St. Petersburg)	
	Association of A/G polymorphism of muscle creatinkinase gene with physical performance of	
18.50 - 19.00	athletes.	
	Fedotovskaya O.N. (St. Petersburg)	

Room 6	
15.00 - 17.00	Symposium Pharmacogenetics
17.15 - 19.00	Symposium Clinical, Biochemical, and Molecular Aspects of Skeleton Mineralization in Healthy and Affected child

### June 9

	Congress Hall	
9.00 - 11.00	Workshop "Diagnostics and treatment of inherited and aquired cardiomyopathies"	
11.00 - 11.30	Coffee-break	
11.30 - 14.00	<b>Workshop</b> "Organic acidemias, diagnosis, treatment, biotinidase deficiency, principles of clinical nutrition"	
14.00 - 15.00	Lunch	
15.00 - 17.30	<b>Workshop</b> "Aminoacidopathies. Current approaches to diagnostics and treatment. Principles of clinical nutrition"	

Red Hall A		
	Symposium Oncogenetics	
9.00 - 11.00	Chairpersons:	
	Imyanitov E.N., Dubina M.V.	
	Diagnostic significance of connexin-26 mutations in gastric cancer.	
9.00 - 9.15	Mozgovoy E.D. (St. Petersburg)	
0.15 0.20	Detection of bladder cancer using UroVision (FISH) assay in voided urine sample.	
9.15 - 9.30	Vasilyeva Z. Zh. (St. Petersburg)	
9.30 - 9.45	High efficacy of gefitinib in EGFR mutation-positive non-small cell lung cancer.	
9.30 - 9.43	Moiseyenko F.V. (St. Petersburg)	
9.45 - 10.00	Role of p73 protein in apoptosis, carcinogenesis and drug resistance.	
9.43 - 10.00	Vinogradskaya G.R. (St. Petersburg)	
10.00 - 10.15	Genetic analysis of multiple tumors of gastrointestinal tract.	
10.00 10.13	Vostrukhina O. A. (St. Petersburg)	
10.15 - 10.30	Innovative medical technologies in laboratory diagnostics of cancer.	
10110 10100	Totskaya Ye.G. (Novosibirsk)	
10.30 - 10.45	Molecular markers for the therapy of stomach cancer.	
	Volkov N.M. (St. Petersburg)	
10.45 - 11.00	Hereditary cancer syndromes.	
11.00 11.20	Imyanitov E.N. (St. Petersburg)	
11.00 - 11.20	Coffee-break	
	Symposium Molecular Neurology	
11.20 - 14.00	Chairpersons:	
	Guzeva V.I., Gorbunova V.N., Chukhlovina M.L.	
11.20 - 14.00	Genetics of epilepsy.	
11.20 11.00	Guzeva V.I. (St. Petersburg)	
11.20 - 14.00	Brain tumors in structure of hereditary neurological diseases.	
	Gobunova V.N. (St. Petersburg)	
11.20 - 14.00	Genetics aspects of the stroke.	
	Chukhlovina M.L. (St. Petersburg)	
11.20 - 14.00	Clinical molecular correlations and prenatal diagnosis of Duchenne-Bekker myodistrophy. <b>Ledascheva T.A.</b> (St. Petersburg)	
	Molecular genetic profile and clinical polymorphism of mitochondrial myopathies.	
11.20 - 14.00	Saikova L.A. (St. Petersburg)	
	Prenatal diagnosis of hereditary neurological diseases (Duchenne-Bekker myodistrophy, myotonic	
11.20 - 14.00	dystrophy, phenilketonuria).	
	Ivaschenko T.E. (St. Petersburg)	
11.20 14.00	Hereditary forms of Parkinson disease.	
11.20 - 14.00	Pchelina S.N. (St. Petersburg)	
11.20 - 14.00	Molecular diagnosis of myodistrophy Landuzi-Dejerine.	
11.20 - 14.00	Rudenko D.I. (St. Petersburg)	
11.20 - 14.00	Diagnosis and treatment of spinal muscle atrophy.	
11.20 - 14.00	Vakharlovsky V.G. (St. Petersburg)	
11.20 - 14.00	Genotherapy of muscle dystrophias.	
	Baranov A.N. (St. Petersburg)	
14.00 - 15.00	Lunch	
15.00 - 17.30	Symposium Molecular Endocronology	
9.00 - 11.00	Symposium Molecular Basis of Trombosis	
11.00 - 11.30	Coffee-break	
11.30 - 17.30	Symposium Molecular Cardiology	

	Red Hall C
	Symposium <b>Prenatal Diagnosis</b>
9.00 - 11.00	Chairpersons:
	Hulten Maj A., Baranov V.S., Zolotukhina T.V.
9.00 - 9.15	Prenatal diagnosis of chromosomal abnormalities:approaches, methods, and results. <b>Rubtsov Nikolay B.</b> (Novosibirsk)
9.15 - 9.45	Large scale clinical application of QF-PCR for rapid prenatal diagnosis of common chromosome aneuploidies.
9.45 - 10.15	Cirigliano Vincenzo (Barcelona, Spain)  BACS-on-BEADS <sup>TM</sup> , a new technology for rapid detection of fetal microdeletions and aneuploidies.  Ruosaari Salla (Perkin Elmer)
10.15 - 11.00	New Developments in Prenatal Diagnosis.  Nilsson Mats (Uppsala, Sweden)
11.00 - 11.30	Coffee-break
9.00 - 12.00	Symposium Reproductive Genetics Chairpersons:
	Lebedev I.N., Zukin V. D.
11.20 - 11.50	Reproductive genetics and Dr. Jekyll-Mr. Hyde oddities.
11.20 - 11.30	Golubovsky Michael D. (Berkeley, USA)
11.50 - 12.20	Array CGH in reproductive medicine - new horizons. <b>Zukin Valeriy D.</b> ( <i>Kiev, Ukraine</i> )
12.20 - 12.40	Using array-CGH in PGD for carriers of balanced translocation.  Kremenskoy Maxim O. (Kiev, Ukraine)
12.40 - 13.00	The genetics of gonadal mosaicism. <b>Kovaleva Natalia V.</b> (St. Petersburg)
13.00 - 13.15	Genetic factors in various reproductive disorders.  Fetisova I.N. (Ivanovo)
13.15 - 13.30	Screening of CFTR gene mutations in infertile men.  Markova Ekaterina V. (Krasnoyarsk)
13.30 - 13.45	Angiogenesis and habitual miscarriages.  Sadekova Olga N. (Moscow)
13.45 - 14.00	Discussion
14.00 - 15.00	Lunch
	Symposium Clinical Epigenetics and Non-Mendelian Inheritance
15.00 - 17.30	Chairperson: Lebedev I.N.
15.15 - 15.30	Diseases of expansion of trinucleotide repeats in the Sakha (Yakutia)Republic.  Nazarenko L.P. (Tomsk)
	Abnormal changes of genomic DNA methylation in chronic B-cell lymphatic leukemia:
15.30 - 15.45	hybridization analysis on DNA arrays and functional significance.
	Moskalev E.A. (Moscow, Voronezh; Heidelberg, Germany)
15.45 - 16.00	Epigenetic tumor markers in the circulating DNA: their distribution in blood and use in oncodiagnostics.
10.00 - 04.00	Rykova E.Yu. (Novosibirsk)
16.00 - 16.15	Epigenetic status of embryo genome with chromosomal mosaicism.  Tolmacheva E.N. (Tomsk)
	Genetic and epigenetic features of B2VNTR minisatellite in BDKRB2 gene in normal and
16.15 - 16.30	cardiovascular system diseases.  Pitsik E.V. (St. Petersburg; Berlin-Buch, Germany)
16.30 - 16.45	Epigenetic markers in ataxia telangiectasia and  Kuranova M.L. (St. Petersburg)
16.45 - 17.00	Regular association between epigenetic diseases and DNA methylation disturbance resulted from deficiency of folate cycle enzymes prognosis of the disease manifestation.  Grechanina E.Ya. (Kharkov, Ukraine)
17.00 - 17.15	Combination of P53 gene mutations and methylation of MGMT in children glial tumors. <b>Kholodov B.V.</b> ( <i>Moscow</i> )
17.15 - 17.30	Discussion
11.10 11.00	Discussion

Red Hall D	
9.00 - 11.00	Symposium Modern Laboratory Technologies
11.00 - 11.20	Coffee-break
11.20 - 14.00	Symposium Modern Methods of Neonatal Screening
	Chairpersons:
	Mönch E., Vokhmianina N.V., Romanenko O.P.
11.20 - 12.00	Neonatal screening in Germany: premises and results.
	Mönch E. (Berlin, Germany)
12.00 - 12.20	Optimization of neonatal screening in St. Petersburg.
	Vokhmianina N.V. (St. Petersburg)
12.20 - 12.40	Fluorescent immunobiochips as next-generation technology in neonatal screening.
	Osin N.S. (Immunoscreen, Moscow)
12.40 - 13.00	Mass spectrometry in clinical trials – possibility and reality.
	Podvalny E. (Moscow)
13.00 - 13.20	Now potentials of old method.
	Grechanina E.Y. (Kharkov, Ukraine)
13.20 - 14.00	Discussion
14.00 - 15.00	Lunch
15.00 - 17.30	Symposium Molecular Allergology and Pulmonology

Room 5		
9.00 - 11.00	Symposium Hereditary Disease in Pulmonology, Cystic Fibrosis	
11.00 - 11.20	Coffee-break	
11.20 - 14.00	Symposium Cell Technologies	
14.00 - 15.00	Lunch	
15.00 - 17.30	Symposium Molecular Basis of Hereditary Connective Tissue Disorde	

Room 6		
9.00 - 11.00	Round Table DNA Technologies in Forensic Practice	
	Chairperson:	
	Khalchitsky S.E.	
11.00 - 11.20	Coffee-break	
11.20 - 14.00	Round Table DNA Technologies in Forensic Practice (continuation)	
14.00 - 15.00	Lunch	
15.00 - 17.30	Symposium Statistics and Information Technologies in Medical Research. Problems of Terminology	
	Chairpersons:	
	Khromov-Borisov N.N., Razorenova T.S., Shavlovsky M.M.	
15.00 - 15.30	Syndrome of Statistical Leniency or the Meaning and Value of the P-value.	
	Khromov-Borisov (Saint-Petersburg)	
15.30 - 15.45	Multivariate Statistical Analysis of Cytogenetic Profile in Two Ethnic Groups.	
	Brazhnikova E.A. (Kemerovo)	
15.45 - 16.00	Upgrade of the Component Analysis for the Purposes of Graphic Presentation of Intercomponent	
	Relationships in Complex Biomedical Systems.	
	Vorobiev N.I. (Saint-Petersburg)	
16.00 - 16.15	Application of Cluster Analysis Methods to the Diagnosis of Mitochondrial Diseases.	
	Grechanina E.J. (Kharkov, Ukraine)	
16.15 - 16.30	Potentials of Information Technologies in Functional Rehabilitation of Oncologic Patients.	
	Shikhlyarova A.I. (Rostov-on-Don)	
16.30 - 16.45	New Phenotyping Procedure for Prediction of Efficiency of the Crush Syndrome Treatment	
	by Means of Mathematical Modeling.	
	Filimonova A.A. (Kazan)	
16.45 - 17.30	Terminology Issues in Molecular Medicine.	
	Shavlovsky M.M. (Saint-Petersburg)	
18.00	Closing Ceremony	