

EXPERIMENTAL AND COMPUTATIONAL BIOMEDICINE

in memory of Professor Vladimir S. Markhasin

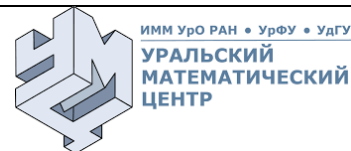
**Russian Conference
with International Participation**

SCIENTIFIC PROGRAM

Ekaterinburg, May 26-28, 2021

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

ПАРТНЕРЫ КОНФЕРЕНЦИИ



IEEE Russia-Siberia Section

May 26 (ON-SITE day)

Hall №1 – [Popova st., 30](#)

Hall №2 – [Repina st., 2](#)

Hall №3 – [Moskovskaya st, 12](#)

09.00-09.30 Registration of conference participants (Hall №1, Hall №2, Hall №3)

	09.30-10.50	10.50-11.00	11.00-12.30	12.30-13.00	13.00-15.00	15.00-15.15	15.15-16.35	16.35-17.00	17.00-18.30
Hall №1	Biomechanics. Experiments and mathematical models	BREAK	Experimental and computational models in cardiovascular physiology and cardiology	BREAK	Hall №1 THE GRAND OPENING (welcome address and memorial talk by O. Solovyova) PLENARY LECTURES M. Sutunkova A. Avetisyan S. Fedotov	BREAK	Experimental and computational models in cardiovascular physiology and cardiology	BREAK	Experimental and computational models in cardiovascular physiology and cardiology
Hall №2	Immunology. Biomedical and molecular genetic aspects		Immunology. Biomedical and molecular genetic aspects				Molecular, cellular and genetic investigations and technologies in biology and medicine		Molecular, cellular and genetic investigations and technologies in biology and medicine
Hall №3	Toxicology. Bioprophylaxis of occupational and environmentally related diseases		Toxicology. Bioprophylaxis of occupational and environmentally related diseases						

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

May 27 (ONLINE day)

	9.30-11.20		11.25-12.55		13.00-14.55		15.00-17.15		17.20-19.30
Stream №1	Experimental and computational models in cardiovascular physiology and cardiology	BREAK	Experimental and computational models in cardiovascular physiology and cardiology	BREAK	PLENARY LECTURES V. Chereshev O. Kovtun P. Kohl A. McCulloch	BREAK	Experimental and computational models in cardiovascular physiology and cardiology	BREAK	Experimental and computational models in cardiovascular physiology and cardiology
Stream №2	9.30-11.15		11.25-12.45				15.10-16.40		
	Biomechanics. Experiments and mathematical models		Biomechanics. Experiments and mathematical models				Biomechanics. Experiments and mathematical models		
Stream №3	9.30-11.20		11.30-12.50				15.10-17.55		
	New materials and advanced medical technologies	New materials and advanced medical technologies	New materials and advanced medical technologies						
Stream №4	9.30-11.25	11.30-12.55	15.05-17.20						
	Analytical and computer epidemiology. Old and new infections, modern technologies for prevention and treatment	Immunology. Biomedical and molecular genetic aspects	Molecular, cellular and genetic investigations and technologies in biology and medicine						

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

May 28 (ONLINE day)

Joint Symposium with “IEEE Ural-Siberian Conference on Computational Technologies in Cognitive Science, Genomics and Biomedicine (CSGB)”

	9.00-10.45	10.45-11.00	11.00-12.45	12.45-13.30	13.30-14.55	14.55-15.00	15.00-17.15	17.15-17.30	17.30-19.00
	Computational and Experimental Techniques in Bio-Medicine and In-Silico Medicine	BREAK	Computational and Experimental Techniques in Bio-Medicine	BREAK	PLENARY LECTURES A. Savostyanov A. Panfilov I. Efimov	BREAK	Computational Imaging and Data Processing in Bio-Medicine	BREAK	Computational Modeling in Physiology and Medicine

May 26

ON-SITE DAY

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

09.00-09.30 Registration of conference participants (Hall №1, Hall №2, Hall №3)

<u>Biomechanics. Experiments and mathematical models</u>		
MAY 26		
09.30-10.50 (EKB)		
Hall 1 - <u>Popova st., 30</u>		
Chairs: Bershitsky S.Y., Lookin O.		
09.30-09.45	Nabiev S.R. Bershitsky S.Y. Tsaturyan A.K. <i>Ekaterinburg</i>	The lifetime of the actomyosin complex under load, measured with an optical trap
09.45-10.00	Lipovka A.I. Parshin D.V. <i>Novosibirsk</i>	Experimental study of the mechanical properties of human aorta with various pathologies
10.00-10.15	Slabodchikova D. Sokolova K.V. Khokhlova A. <i>Ekaterinburg</i>	The effect of diabetes mellitus on the characteristics of myocardial collagen fibers
10.15-10.25	Borisova V.A. Myachina T.A. Butova X.A. Gette I.F. Khokhlova A. <i>Ekaterinburg</i>	Effects of plasma glucose concentration on the single cardiomyocyte geometry and contractility in type 1 diabetes.
10.25-10.40	Berg V. Butova X.A. Kochurova A.M. Myachina T.A. Shchepkin D. Khokhlova A. Kopylova G. <i>Ekaterinburg</i>	The effect of omecamtiv mecarbil on the contraction of cardiomyocytes from different heart chambers.
10.40-10.50	Lisin R. Kuznetsov D.A. <i>Ekaterinburg</i>	The effect of the cardiac myosin activator, omecamtiv mecarbil, CK-1827452, on contractility of papillary muscles of the right ventricle of hearts in both healthy and heart failure rats

Participants of «Young Scientist' Talk Competition»

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

Immunology. Biomedical and molecular genetic aspects

MAY 26

09.30-10.50 (EKB)

Hall 2 - Repina st., 2

Chairs: Bocharov G., Tuzankina I.A.

9.30-9.50	Bocharov G. Grebennikov D. Savinkov R.S. <i>Moscow</i>	Mathematical Modelling of Antiviral Immune Responses to SARS-CoV-2
9.50-10.05	Grebennikov D. Bocharov G. <i>Moscow</i>	Multiscale modeling of immune response to virus infections
10.05-10.25	Tuzankina I.A. <i>Ekaterinburg</i>	Immunology of the 21st century - an interdisciplinary problem // Иммунология 21-го века – междисциплинарная проблема
10.25-10.40	Vlasova E.V. <i>Ekaterinburg</i>	New Immunodeficiency - BACH-2 Syndrome // Новый иммунодефицит - синдром BACH-2
10.40-10.50	Deryabina S.S. <i>Ekaterinburg</i>	Personalized medicine: illusion or reality // Персонализированная медицина: иллюзия или реальность

Participants of «Young Scientist' Talk Competition»

Toxicology. Bioprophylaxis of occupational and environmentally related diseases

MAY 26

09.30-10.50 (EKB)

Hall 3 - Moskovskaya st, 12

Chairs: Gurvich V.B., Sutunkova M.P., Privalova L.I.

9.30-9.45	Minigalieva I.A. Sutunkova M.P. Panov V.G. Gurvich V.B. Privalova L.I. Katsnelson B.A. <i>Ekaterinburg</i>	Experimental data to determine the types of combined toxicity of nanoparticles // Экспериментальные данные к характеристике типологии комбинированной токсичности
9.45-10.00	Privalova L.I. Minigalieva I.A. Sutunkova M.P.	On the principles and methods of increasing the body's resistance to the harmful effects of industrial poisons// О принципах и

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

	<p>Gurvich V.B. Klinova S.V. Makeev O.G. Valamina I.E. Bushueva T.V. Soloboeva Yu.I. Protsenko Yu.L. Nikitina L.V. Gerzen O.P. Solovyeva S.N. Riabova Iu.V. Katsnelson B.A.</p> <p><i>Ekaterinburg</i></p>	<p>способах повышения резистентности организма к вредным эффектам промышленных ядов</p>
10.00-10.15	<p>Shur V.Ya. Shishkina E.V. Pryakhina V.I. Lysykh B.I. Kuznetsov D.K.</p> <p><i>Ekaterinburg</i></p>	<p>Nanoparticle fabrication and shape control for nanotoxicology // Изготовление наночастиц и контроль формы для нанотоксикологии</p>
10.15-10.25	<p>Tsepilov N.A. Fedoruk A.A. Sutunkova M.P. Gurvich V.B. Panov V.G. Valamina I.E.</p> <p><i>Ekaterinburg</i></p>	<p>An experimental assessment of the combined adverse effects of sodium fluoride and a constant magnetic field // Результаты экспериментального исследования сочетанного действия фторида натрия и магнитного поля</p>
10.25-10.35	<p>Klinova S.V. Minigalieva I.A. Sutunkova M.P. Panov V.G. Riabova I.V. Protsenko Y.L.</p> <p><i>Ekaterinburg</i></p>	<p>The comparative and combined cardiovascular toxicity of lead and cadmium // Сравнительная и комбинированная кардиовазотоксичность свинца и кадмия</p>
10.35-10.45	<p>Tyshova V.O. Gerzen O.P. Simanova Yu.A. Klinova S.V. Riabova I.V.</p> <p><i>Ekaterinburg</i></p>	<p>Comparison of the effect of lead and cadmium salts and nanoparticles on the functional characteristics of myosin in the right ventricle of the rat heart // Сравнение влияния солей и наночастиц свинца и кадмия на функциональные характеристики миозина правого желудочка сердца крысы</p>
10.45-10.50		DISCUSSION

 *Participants of «Young Scientist' Talk Competition»*

10.50-11.00 Break

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

**Experimental and computational models
in cardiovascular physiology and cardiology**

**MAY 26
11.00-12.30 (EKB)**

Hall 1 - Popova st., 30

Chairs: Tsyvian P.B., Teregulov Y.E.

11.00-11.20	Tsyvian P.B. Kraeva O.A. Markova T.V. Chumarnaya T. <i>Ekaterinburg</i>	Remodeling of the heart of premature child
11.20-11.40	Teregulov Y.E. <i>Kazan</i>	Spatial vector analysis of left bundle branch block
11.40-11.55	Golovko V. <i>Syktyvkar</i>	Decrease in the intracellular concentration of calcium ions triggers a compensatory mechanism in response to the inhibitory effect of nifedipine in the right atrial cells of the chick embryo
11.55-12.10	Rykin A.M. Markov N.S. Gonotkov M.A. Lebedeva E. <i>Ekaterinburg, Syktyvkar</i>	Studying of the ontogenetic changes in electrophysiological properties of mouse cardiac pacemaker cells
12.10-12.20	Abrasheva V.O. Romanova S.G. Syunyaev R.A. Frolova S. <i>Dolgoprudny</i>	Human ventricular fast sodium current model at physiological temperature
12.20-12.30	Kochurova A.M. Myachina T.A. Berg V. Butova X.A. Kopylova G. Khokhlova A. Shchepkin D. <i>Ekaterinburg</i>	The effect of type 2 diabetes on contractility of cardiomyocytes from the different heart regions

Participants of «Young Scientist' Talk Competition»

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

Immunology. Biomedical and molecular genetic aspects

**MAY 26
11.00-12.30 (EKB)**

Hall 2 - Repina st., 2

Chairs: Zamorina S.A., Sannikova O.Yu.

11.00-11.10	Vlasova E.V. <i>Ekaterinburg</i>	Curative technologies for Nijmegen syndrome // Куративные технологии при синдроме Ниймеген
11.10-11.20	Zamorina S. Rayev M. Khramtsov P. <i>Perm</i>	Interaction of graphene oxide nanoparticles with Jurkat cells in the Cell-IQ system
11.20-11.30	Timganova V. Zamorina S. <i>Perm</i>	Glycodelin in regulation of differentiation of IL-17-producing helper t cells
11.30-11.40	Shardina K.U. Timganova V. Zamorina S. Bochkova M.S. Bochkova M.S. Uzhviyuk S.V. <i>Perm</i>	Chorionic gonadotropin as a factor of differentiation of myeloid-derived suppressor cells
11.40-11.50	Demicheva E. Averchenko M. Ahremenko I. Ushenin K. Bolkov M. <i>Ekaterinburg</i>	Gene expression profiling in patients with RBCK1 (HOIL1) deficiency.
11.50-12.00	Shinwari K. <i>Ekaterinburg</i>	Diagnostic difficulties of the Sanger method for identifying causal mutations using the example of congenital neutropenia
12.00-12.15	Sarkisyan N.G. Khlystova K.A. Chumakov N.S. <i>Ekaterinburg</i>	Reparative features of the oral mucosa taking into account the activation of innate immunity // Репаративные особенности слизистой полости рта с учетом активации врожденного иммунитета
12.15-12.30	Sannikova O.Yu. <i>Ekaterinburg</i>	Osteoporosis. About genetic, immunological and pathophysiological aspects // Остеопороз. О генетических, иммунологических и патофизиологических моментах

Participants of «Young Scientist' Talk Competition»

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

Toxicology. Bioprophylaxis of occupational and environmentally related diseases

**MAY 26
11.00-12.30 (EKB)**

Hall 3 - Moskovskaya st, 12

Chairs: Gurvich V.B., Sutunkova M.P., Privalova L.I.

11.00-11.10	Simanova Yu.A. Gerzen O.P. Tyshova V.O. Klinova S.V. Riabova I.V. <i>Ekaterinburg</i>	Effect of exercise on the functional characteristics of cardiac myosin in the right ventricle of the rat under lead intoxication // Влияние физической нагрузки на функциональные характеристики сердечного миозина правого желудочка крысы при интоксикации свинцом
11.10-11.20	Chernyshov I.N. Ivashchenko M.A. Sutunkova M. P. Solovyeva S.N. Fedoruk A. A. Ruzakov. V.O. Zubarev I.V. <i>Ekaterinburg</i>	Experimental data on the harmful effect of lead oxide nanoparticles on the assessment of health risks for workers // Экспериментальные данные вредного действия наночастиц оксида свинца к оценке риска для здоровья работающих
11.20-11.35	Drugova O.G. Simonova O.V. Fedoruk A.A. <i>Ekaterinburg</i>	Toxicological characteristics of the aerosol solid phase in the production of periclase-carbon refractories // Токсикологическая характеристика твердой фазы аэрозоля при производстве периклазоуглеродистых огнеупоров.
11.35-11.45	Riabova I.V. Privalova L.I. Sutunkova M.P. Minigalieva I.A. Solovyeva S.N. Chernyshov I.N. Katsnelson B.A. <i>Ekaterinburg</i>	Rat lung response to intratracheal instillation of a combination of lead, copper, and zinc oxide nanoparticles and its mitigation by a bioprophylactic complex // Реакция легких крысы на интратрахеальную инстилляцию комбинации наночастиц оксидов свинца, меди и цинка и ее ослабление биопрофилактическим комплексом
11.45-11.55	Aboushanab S. Gette I.F. Danilova I.G. Kovaleva E.G. <i>Ekaterinburg</i>	Antihyperglycemic effect of trifolium pretensesdes extract on streptozotocin-induced diabetes in female rats // Антигипергликемическое действие экстракта трифолия на стрептозотоцин-индуцированный диабет у крыс

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

12.00-12.15	<p>Soloboeva Yu.I. Yarushin S.V. Chertovikova A.S. Gurvich V.B. Malykh O.L. Kadnikova E.P. Kuzmin S.V. Kozlovskikh D.N. Sutunkova M.P. Privalova L.I. Katsnelson B.A.</p> <p><i>Ekaterinburg</i></p>	<p>Biological prevention of ecologically related health problems of the population exposed to chemical pollution factors of the environment. Introduction experience // Биологическая профилактика экологически обусловленных нарушений здоровья у населения, проживающего в промышленно развитом регионе, как новый метод профилактической медицины. Практическое внедрение. Опыт Свердловской области.</p>
12.15-12.30		DISCUSSION

Participants of «Young Scientist' Talk Competition»

Toxicology. Bioprophylaxis of occupational and environmentally related diseases

RECORDED TALKS

	<p>Solovyova S.N. Sutunkova M.P., Minigalieva I.A., Privalova L.I., Gurvich V.B., Chernyshov I.N., Katsnelson B.A.</p> <p><i>Ekaterinburg</i></p>	<p>Evaluation of the body's response to the exposure of amorphous silicon dioxide nanoparticles within chronic inhalation experiment // Оценка реакции организма на воздействие наночастиц аморфного диоксида кремния в хроническом эксперименте</p> <p>Recorded talk (Link)</p>
	<p>Beresneva T.A. Nikolaeva K.I. Ufimtceva M.A.</p> <p><i>Ekaterinburg</i></p>	<p>Improvement of the system for the diagnosis of allergic dermatitis in industrial workers // Совершенствование системы диагностики аллергических дерматитов у рабочих в промышленности</p> <p>RECORDED TALK (LINK)</p>
	<p>Kashanskaya E.P. Sutunkova M.P. Solovyova S.N. Minigalieva I.A. Gogoleva O.I. Vasilyeva A.V.</p> <p><i>Ekaterinburg</i></p>	<p>Increased resistance of the body to the cytotoxic effect of crystalline silica in a toxicological experiment associated with Lymphomyosot // Повышение резистентности организма к цитотоксическому действию кристаллического диоксида кремния в токсикологическом эксперименте на фоне влияния препарата «Лимфомиозот»</p> <p>RECORDED TALK (LINK)</p>

12.30-13.00 Break

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

THE GRAND OPENING.
PLENARY LECTURES

MAY 26
13.00-15.00 (EKB)

Hall 1 - Popova st., 30

Chairs: Sutunkova M.P., Solovyova O.E.

13.00-13.30	Solovyova O.E. <i>Ekaterinburg</i>	On the Ural School of Cardiac Physiology and Biomechanics, Vladimir Markhasin and his contribution to the theory of heart heterogeneity
13.30-14.00	Sutunkova M.P. <i>Ekaterinburg</i>	The main results of an experimental study of the effect on the body of metal and metal-oxide nanoparticles
14.00-14.30	Avetisyan A.I. <i>Moscow</i>	Digital transformation of medicine. Challenges and prospects
14.30-15.00	Fedotov S. <i>UK</i>	Non-Markovian models of intracellular transport

15.00-15.15 Break

Experimental and computational models
in cardiovascular physiology and cardiology

MAY 26
15.15-16.30 (EKB)

Hall 1 - Popova st., 30

Chairs: Syunyaev R.A., Katsnelson L.B.

15.15-15.35	Syunyaev R.A. <i>Dolgoprudny</i>	Personalized simulation of ventricular and atrial myocytes
15.35-15.55	Aleksandrov D.V. Starodumov I.O. Sokolov S.Y. Zubarev A.Y. Bessonov I.S. Pavlyuk E.V. Blyakhman F.A.	Modeling of hemodynamics in bifurcation lesions of coronary arteries before and after myocardial revascularization

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

	<i>Ekaterinburg</i>	
15.55-16.10	Syomin F.A. Khabibullina A. Osepyan A. Tsaturyan A.K. <i>Moscow</i>	Multiscale simulation of inherited cardiomyopathies: the effects of cellular disorders on heart mechanics
16.10-16.20	Pikunov A.V. Syunyaev R.A. <i>Dolgoprudny</i>	Validation of mathematical models of the human atrial action potential
16.20-16.30	Komarov I.A. <i>Syktyvkar</i>	Mathematical porcine heart-torso model for electrophysiological simulations

Participants of «Young Scientist' Talk Competition»

Molecular, cellular and genetic investigations and technologies in biology and medicine

MAY 26
15.15-16.30 (EKB)

Hall 2 - Repina st., 2

Chairs: Yushkov B.G., Maklakova I.Yu.

15.15-15.35	Yushkov B.G. <i>Ekaterinburg</i>	Arrhythmogenic effect of heart stem cells
15.35-15.55	Maklakova I.Yu. Grebnev D. Yu. <i>Ekaterinburg</i>	Effects of multipotent mesenchymal stromal and hepatic stellate cells on reparative regeneration of the liver
15.55-16.15	Zotova N. Gusev E.Yu. <i>Ekaterinburg</i>	Systemic inflammation in critical states: different nature - one pathological basis
16.15-16.30	Razumeeva S.A. Zotova N. <i>Ekaterinburg</i>	Changes in saliva biochemical and hormone parameters in wrestlers at the stage of the highest sports skill during the annual training cycle

Participants of «Young Scientist' Talk Competition»

16.35-17.00 Break

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

**Experimental and computational models
in cardiovascular physiology and cardiology**

**MAY 26
17.00-18.30 (EKB)**

Hall 1- Popova st., 30

Chairs: Azarov J., Ryvkin A.

17.00-17.20	Azarov J. Vityazev V. Vaykshnorayte M. <i>Syktvykar</i>	Myocardial electrical heterogeneity as a manifestation of thermal adaptation in fish
17.20-17.35	Bernikova O. Durkina A. Sedova K. Azarov J. <i>Syktvykar</i>	Determinants of reperfusion arrhythmias: action potential duration vs dispersion of repolarization
17.35-17.45	Sereda Y. Osipov G. <i>Nizhny Novgorod</i>	Problems and prospects of applying deep learning networks to the analysis of electrocardiograms
17.45-17.55	Rybashlykov D.I. Syunyaev R.A. <i>Dolgoprudny</i>	Low-cost optical mapping system with open-source software
17.55-18.05	Myachina T.A. Butova X.A. Khokhlova A. Kuznetsov D.A. <i>Ekaterinburg</i>	The effect of estrogen deficiency on contractile function of single cardiomyocytes from atria and ventricles
18.05-18.15	Butova X.A. Myachina T.A. Khokhlova A. <i>Ekaterinburg</i>	The effect of paroxysmal atrial fibrillation on the mechanical function of single cardiomyocytes from the left and right rat atria
18.15-18.25	Ryvkin A.M. Markov N.S. <i>Ekaterinburg</i>	Calcium sparks in cardiac pacemaker cells at different temperatures. Computer modelling

Participants of «Young Scientist' Talk Competition»

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

**Molecular, cellular and genetic investigations and technologies
in biology and medicine**

**MAY 26
17.00-18.15 (EKB)**

Hall 2 - Repina st., 2

Chairs: Bushueva T.

17.00- 17.20	Naumova A. Bushueva T. Minigalieva I. Katsnelson B.A. <i>Ekaterinburg</i>	Study of primary cell effects of cadmium sulfide and lead sulfide nanoparticles on endothelial cell culture
17.20- 17.40	Artemenko E. Bushueva T. Minigalieva I. <i>Ekaterinburg</i>	Using fibroblast culture to study combined cytotoxicity of metal oxide nanoparticles
17.40- 18.00	Khramtsova Yu.S. Artashyan O.S. Tyumentseva N.V. Vlasova A. Zhilyakova M. <i>Ekaterinburg</i>	Mast cells of the urogenital system in postnatal ontogenesis
18.00- 18.15	Pushkina M.A. <i>Ekaterinburg</i>	Reaction of the testis connective tissue to blood injury

Participants of «Young Scientist' Talk Competition»

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

May 27
ONLINE DAY

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

**Experimental and computational models
in cardiovascular physiology and cardiology**

**MAY 27
9.30-11.20 (EKB)**

Stream №1

Chairs: Khokhlova A., Katsnelson L.B.

9.30-9.50 +5 min	Gurev V. Parikh J. Khokhlova A. Butova X.A. Myachina T.A. Kozloski J. <i>USA</i>	Machine learning of biophysical model parameters in analysis of cardiac inotropes
9.55-10.10 + 5 min	Kamaltdinov M.R. Porodikov A.A. Kuchumov A. Khairulin A.R. <i>Perm</i>	Patient-specific model of blood circulation to evaluate a shunting operation effectiveness
10.15-10.35 + 5 min	Danilov A.A. Vassilevski Y.V. Chernyshenko A.Y. <i>Moscow</i>	Personalized anatomical cardiac models for computational electrophysiology problems
10.40-10.50 + 5 min	Salikhova T. Pushin D. Biryukova L.S. Guria G.T. <i>Moscow</i>	Modeling of shear-induced platelet activation in patient-specific arteriovenous fistula for hemodialysis
10.55-11.05	Zykov A.A. Matveyev A.L. Matveev L.A. Sovetsky A.A. Zaitsev V.Y. <i>Nizhny Novgorod</i>	Computational model to simulate visualization of blood micro-circulation in optical coherence tomography
11.10-11.20	Mozokhina A. Volpert V. Bouchnita A. <i>Moscow</i>	The influence of inflammation on multiple thrombus formation and blood circulation in the lungs during the coronavirus disease
11.20-11.25	BREAK	

Participants of «Young Scientist' Talk Competition»

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

Biomechanics. Experiments and mathematical models

MAY 27

9.30-11.15 (EKB)

Stream №2

Chairs: Zubarev A.Y., Lookin O.

9.30-9.50 +5 min	Zubarev A.Y. <i>Ekaterinburg</i>	Magnetic biogels as matrices for biological tissues growth
9.55-10.15 +5 min	Vasserman I.N. <i>Perm</i>	Mechano-electric feedback in spatially deformed cardiac tissue
10.20-10.30 +5 min	Gologush T.S. Cherevko A.A. Ostapenko V.V. <i>Novosibirsk</i>	Mathematical modeling and optimization of multi-stage embolization of cerebral arteriovenous malformation
10.35-10.45 +5 min	Yan'kova G.S. Cherevko A.A. Bogomyakova O.B. Tulupov A.A. Khe A.K. <i>Novosibirsk</i>	Mathematical modeling of hydrocephalus: qualitative analysis of brain matter deformation
10.50-11.00 +5 min	Akulova A.R. <i>Novosibirsk</i>	Study of the patterns of growth of fetal brain structures based on MRI data
11.05-11.15	Shitoev I.D. Tverier V.M. <i>Perm</i>	Biomechanical features of the influence of the efforts of the dentofacial system on the internal carotid artery // Биомеханические особенности влияния усилий зубочелюстной системы на внутреннюю сонную артерию
11.15-11.25	BREAK	

Participants of «Young Scientist' Talk Competition»

New materials and advanced medical technologies

**MAY 27
9.30-11.20 (EKB)**

Stream №3

Chairs: Volokitina E.A., Antropova I.P.

9.30-9.40 +5 min	Antropova I.P. <i>Ekaterinburg</i>	Stimulation of osteogenesis with platelet concentrates. Modern approaches and problems
9.45-9.55 + 5 min	Timofeev K.A. <i>Ekaterinburg</i>	Lanthanum zirconate as a new osteotropic material
10.00-10.10 + 5 min	Udintseva M.Yu. <i>Ekaterinburg</i>	Biomechanical conformity is the basis of implantation stability
10.15-10.25 + 5 min	Gulnazarova S.V. Ganzha A. <i>Ekaterinburg</i>	Metalloimplant with diamond-like amorphous carbon covering for osteosynthesis in osteoporosis
10.30-10.40 + 5 min	Zhilyakov A.V. Chernyadiev S.A. Korobova N.Y. Gorbatov V.I. Kirshina O.V. <i>Ekaterinburg</i>	Modification of the mathematical model of thermocoagulation of cysts
10.45-10.55 +5 min	Chelchushev D.A. Volokitina E.A., Antropova I.P. <i>Ekaterinburg</i>	Remodeling of peri-implant bone tissue in the supracondylar region, depending on the morpho-functional properties of platelets upon implantation of a titanium rod (experimental study) // Особенности ремоделирования периимплантной костной ткани в надмышцелковой области, в зависимости от морфо-функциональных свойств тромбоцитов кроликов при имплантации титанового стержня (экспериментальное исследование)
11.00-11.10	Tashkinov M. Matveenko V. Gleadall A. Silberschmidt V. <i>Perm</i>	Development of personalised medical devices using additive manufacturing technologies
11.10-11.30		DISCUSSION / BREAK

Participants of «Young Scientist' Talk Competition»

<p><u>Analytical and computer epidemiology.</u></p> <p><u>Old and new infections, modern technologies for prevention and treatment</u></p> <p>MAY 27</p> <p>9.30-11.25 (EKB)</p> <p>Stream №4</p> <p>Chairs: Kosova A.A.</p>		
9.30-9.45 +5 min	<p>Platonova T.A. Golubkova A.A. Smirnova S.S. <i>Ekaterinburg</i></p>	COVID-19 in employees of medical organizations: characteristics of clinical manifestations in the acute period and the period of convalescence
9.50-10.05 + 5 min	<p>Perevalova T. Bashkirtseva I. Ryashko L. <i>Ekaterinburg</i></p>	Noise-induced phenomena in eco-epidemiological model with Allee effect
10.10-10.20 + 5 min	<p>Sankov D.I. Lukyanov S. Korneev A.G. Pan'kov A.S. <i>Orenburg</i></p>	Forecasting the incidence of HFRS in the population of steppe landscapes based on the available climatic data // Прогнозирование заболеваемости ГЛПС населения степных ландшафтов на основе доступных климатических данных
10.25-10.35 + 5 min	<p>Chalapa V. Kosova A.A. <i>Ekaterinburg</i></p>	Developing an R it solution using adaptive interface forms for estimating the reproduction number and forecasting the infectious disease incidence
10.40-11.50 + 5 min	<p>Leonenko V.N. <i>St.-Petersburg</i></p>	Compartmental modeling of long-term influenza dynamics in Russia: the role of immunity propagation and vaccination efficiency
10.55-11.10 + 5 min	<p>Kosova A.A. Sabitov A.U. Grinberg S.I. <i>Ekaterinburg</i></p>	Efficiency of application of masks, glasses and influenza vaccination in pandemic of COVID – 19.
11.15-11.25	<p>Platonova T.A. Golubkova A.A. Karbovnichaya E.A. Smirnova S.S. <i>Ekaterinburg</i></p>	Immune response to SARS-CoV-2 in patients with various clinical forms of infection: features of formation and duration of preservation
11.25-11.30	BREAK	

Participants of «Young Scientist' Talk Competition»

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)


**Experimental and computational models
in cardiovascular physiology and cardiology**

**MAY 27
11.25-12.55 (EKB)**

Stream №1

Chairs: Bershitsky S.Y., Kopylova G.

11.25-11.45 + 5 min	Shirinsky V.P. Samsonov M.V. Podkuychenko N.V. Khapchaev A.Y. Vorotnikov A.V. Shestakova M.V. <i>Moscow</i>	Opposite effects of palmitate on vascular endothelial barrier are revealed in long-term endothelial culture
11.50-12.10 + 5 min	Kapelko V.I. <i>Moscow</i>	The value of connectin (titin) for the contractile function of the heart
12.15-12.25 + 5 min	Berezhnoy A.C. Slotvitsky M.M. Tsvelaya V.A. Agladze K.I. <i>Moscow</i>	Simulation of implantation of cardiomyocytes using microfibers on cardiac tissue in vitro
12.30-12.40 + 5 min	Shcherbina S.A. Slotvitsky M.M. Tsvelaya V.A. Agladze K.I. <i>Moscow</i>	Study of the formation of cardiac tissue under pathological conditions
12.45-12.55	Pershina E.N. Azarov J. Vaykshnorayte M.A. Bernikova O.G. Ovechkin A.O. <i>Syktyvkar</i>	Duration of type 1 diabetes mellitus influences susceptibility to life-threatening ventricular arrhythmias in experimental ischemia-reperfusion
12.55-13.00	BREAK	

 *Participants of «Young Scientist' Talk Competition»*

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

Biomechanics. Experiments and mathematical models

**MAY 27
11.25-12.45 (EKB)**

Stream №2

Chairs: Koubassova N., Shchepkin D.

11.25-11.45 +5 min	Koubassova N. Tsaturyan A. <i>Moscow</i>	Structure of myosin filaments in the relaxed state of striated muscle
11.50-12.00 +5 min	Tsinker M. <i>Perm</i>	Approach to simulating air motion in human lung
12.05-12.15 +5 min	Savinkov R.S. Grebennikov D. Bocharov G. <i>Moscow</i>	Modeling and analysis of the human lymphatic system using graph theory
12.20-12.30 +5 min	Perelygin L.Y. Gavrilov V.A. <i>Perm</i>	Prediction of the results of surgical treatment of hernia based on the theory of fuzzy sets
12.35-12.45 +5 min	Nekrasova A.V. Tsinker M. <i>Perm</i>	Mathematical modeling of air flow in the upper airways of a person
12.45-13.00	BREAK	

Participants of «Young Scientist' Talk Competition»

New materials and advanced medical technologies

**MAY 27
11.30-13.00 (EKB)**

Stream №3

Chairs: Sidenkova A.P., Baranskaya L.T.

11.30-11.40 + 5 min	Kalimullin R.K. Sivuhina V.Yu. <i>Tyumen</i>	Development of the neurocomputer interface "Neuro-bridge"
11.40-11.55 + 5 min	Kuianova I.O. Parshin D.V. <i>Novosibirsk</i>	On the particle swarm method in the optimization of cerebral vessels network parameters with the bypass formation
12.00-12.10 + 5 min	Petrenko T. Kublanov V. Retiunskiy K. <i>Ekaterinburg</i>	Polyfactorial neuroelectrostimulation of neck nerve structures for treatment of neuropsychiatric diseases
12.15-12.20 + 5 min	Nazarikov S.I. Naumov A.M. Padalko M.A. Filatov I.D. Lushnikov A.A. <i>Kaliningrad</i>	Automatic system for determining Cobb angles of scoliotic deformity of the human spine
12.25-12.35 + 5 min	Zudova A.I. Sukhorosova A.G. Shur M.V. Solomatina L. <i>Ekaterinburg</i>	Calculator for determining the severity and feasibility of surgical intervention in patients with traumatic brain injury
12.40-12.50	Kashina Y. Pokrovskii V. <i>Krasnodar</i>	The quantitative adaptation indicator
12.50-13.00	DISCUSSION / BREAK	

 *Participants of «Young Scientist' Talk Competition»*

Immunology. Biomedical and molecular genetic aspects

**MAY 27
11.30-13.00 (EKB)**

Stream №4

Chairs: Bolkov M.A.

11.30-11.40 +5 min	Kadochnikova Y.A. Gein S.V. <i>Perm</i>	The effect of endomorphins-1, 2 on the functions of innate immune cells in vitro
11.45-11.55 +5 min	Kim A.V. Bocharov G.A. Ivanov A.V. <i>Ekaterinburg</i>	Mathematical and computer modeling of HIV dynamics
12.00-12.10 +5 min	Pashnina I.A. <i>Ekaterinburg</i>	Defects of T-lymphocyte differentiation in patients with primary immunodeficiency // Нарушения дифференцировки Т-лимфоцитов при первичных иммунодефицитах
12.15-12.25 +5 min	Cheremokhin D.A. Deryabina S.S. <i>Ekaterinburg</i>	Results of the implementation of the method for the quantitative determination of markers of naive T- and B-lymphocytes (TREC and KREC) for the diagnosis of congenital immunity errors in the Sverdlovsk region // Результаты внедрения метода количественного определения маркёров наивных Т- и В-лимфоцитов (TREC и KREC) для диагностики врожденных ошибок иммунитета в Свердловской области
12.30-12.40 +5 min	Ryashko L. Bashkirtseva I. Chukhareva A. <i>Ekaterinburg</i>	Modeling and analysis of complex tumor-immune dynamics under chemoradiotherapy
12.45-12.55	Krivolapova I.M. <i>Ekaterinburg</i>	Imbalance of pro- and anti-inflammatory cytokines in chronic inflammatory diseases of the joints in children // Дисбаланс про- и противовоспалительных цитокинов при хронических воспалительных заболеваниях суставов у детей
12.55-13.00	BREAK	
	Guojun L. China, Hohhot	Immune Subtype in Muscle-invasive Bladder Cancer: Molecular, functional characterization and clinical implications Recorded talk (Link)

Participants of «Young Scientist' Talk Competition»

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

Plenary Lectures

**MAY 27
13.00-14.55 (EKB)**

Chairs: Solovyova O.E., Tsaturyan A.

13.00-13.25	Chereshnev V.A. <i>Ekaterinburg</i>	New directions for the development of biomedicine in the XXI century
13.30-13.55	Kovtun O.P. <i>Ekaterinburg</i>	Integration of the University and academic science on the platform of the Ural World-class research and educational centers «Advanced production technologies and materials» // Об интеграции университета и академической науки на платформе Уральского межрегионального НОЦ мирового уровня «Передовые производственные технологии и материалы»
14.00-14.25	Kohl P. <i>Germany</i>	Cardiomyocyte Fluid Pumping at the Sub-Microscale
14.30-14.55	McCulloch A. <i>USA</i>	Systems Mechanobiology of Cardiac Myocytes

**Experimental and computational models
in cardiovascular physiology and cardiology**

**MAY 27
15.00-17.15 (EKB)**

Stream №1

Chairs: Abramochkin D., Ryvkin A.

15.00-15.20 + 5 min	Iribe G. <i>Japan</i>	Mechano-electric, -calcium, and -metabolic feedbacks in cardiac cellular function
15.25-15.45 + 5 min	Tsaturyan A. Syomin F.A. <i>Moscow</i>	A simple electromechanical model of cardiac muscle
15.50-16.05 + 5 min	Peyronett R. <i>Germany</i>	Functional coupling between potassium-selective and cation nonselective stretch-activated channels in human atrial fibroblasts: relevance for atrial fibrillation
16.10-16.25 +5min	Kuzmin V.S. Ivaniva A.D. Filatova T.S. <i>Moscow</i>	Downregulated Na ⁺ /K ⁺ -ATPase but not NCX contributes to prolonged APs and resting membrane potential instability in caval vein myocardium
16.30-16.45 + 5 min	Abramochkin D.V. Dzhumaniiazova I.Kh. Haverinen Ia. Vornanen M. <i>Moscow</i>	Factors determining the resistance of fast sodium current to heating in fish cardiomyocytes
16.50-17.00 + 5 min	Kharkovskaia E. Osipov G. Mukhina I. <i>Nizhny Novgorod</i>	The role of store-operated calcium entry in the electrical activity of the heart under conditions of hypoxia/reoxygenation
17.05-17.15	Romanova S.G. Berezhnoy A.C. Frolova S.R. Tsvelaya V.A. Slotvitsky M.M. Popov A. Shumakov D.V. Zybin D.I., Agladze K.I. <i>Moscow</i>	The effect of cardioplegic solution Custodiol on fast sodium channels of human cardiomyocytes
12.50-13.00	BREAK	

Participants of «Young Scientist' Talk Competition»

Biomechanics. Experiments and mathematical models

MAY 27
15.10-16.40 (EKB)

Stream №2

Chairs: Shenkman B.S., Nabiev S.

15.10-15.30 +5 мин	Shenkman B.S. <i>Moscow</i>	Plantar support afferentation controls the rat soleus mechanical characteristics and cytoskeletal proteins: NO as the second messenger
15.35-15.55 +5 мин	Yurtchenko D. Bratus' A.S. Pymenova D. Lessley N. <i>Moscow</i>	On optimal treatment strategy in the mathematical model of prostate cancer
16.00-16.10 +5 мин	Bekero I.D. Tsaturyan A.K. Kruchinin P.A. Kruchinina A.P. Khoroshun A.A. <i>Moscow</i>	Modeling the work of human muscles when body tilting
16.15-16.25 +5 мин	Idrisov A. Belikov N.V. <i>Moscow</i>	Development of a system for determining hand movements
16.30-16.40	Chikova T.N. Tverier V.M. <i>Perm</i>	Biomechanics of bone tissue remodeling under the influence of external forces

Participants of «Young Scientist' Talk Competition»

New materials and advanced medical technologies

**MAY 27
15.10-17.55 (EKB)**

Stream №3

Chairs: Tsyvyan P.B.

15.10-15.25 + 5 min	Savchenko N.V. Nikolaeva K.I. Ufimtceva M.A. Podymova A.S. <i>Ekaterinburg</i>	Medical and organizational technology for the prevention of dermatoses in children of socially vulnerable groups and HIV-positive children
15.30-15.45 + 5 min	Nechaeva O.V. Shulgina T.A. Bespalova N.V. Glinskaya E.V. Zubova K.V. Tikhomirova E.I. <i>Saratov</i>	Rationale for the use of aqueous dispersions of metal nanoparticles as highly effective components of antiseptic preparations
15.50-16.05 + 5 min	Ermolaev P.A. <i>Omsk</i>	Advanced technologies for the preservation of the donor heart // Перспективные технологии консервации донорского сердца
16.10-16.20 +5 min	Gurin A.E. <i>Pushchino</i>	Investigation of organoprotective effects of carbon monoxide to prolong the time frames of heart hypothermic storage
16.25-16.35 +5 min	Ugraitskaya S.V. <i>Pushchino</i>	Effect of helium on cryoconception of HELA and L929 cells
16.40-16.50 +5 min	Zalomova L.V. <i>Serpukhov</i>	Efficiency of preservation of human gut microbiota in liquid nitrogen, depending on the composition of the cryoprotective medium
16.55-17.05 +5 min	Baikenova M.B. Sokolova K.V. Gette I.F. Danilova I.G. <i>Ekaterinburg</i>	Impact of (sodium) aminophthalhydrazide on insulin+ and Pdx1+ rat liver cells in experimental model of diabetes mellitus type 1
17.10-17.20	Filatov I.D. Padalko M.A. Naumov A.M. Nazarikov S.I.	Leukocytes counting in a blood smear using segmentation and classification neural networks

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

+5 min	Lushnikov A.A. <i>Kaliningrad</i>	
17.25- 17.35 +5 min	Yakovleva J.A. <i>Krasnoyarsk</i>	Analysis of the influence of the time of irradiation of experimental tumor cells with electromagnetic radiation of the microwave range on the generation of free radicals
17.40- 17.55		DISCUSSION

Participants of «Young Scientist' Talk Competition»

**Molecular, cellular and genetic investigations and technologies
in biology and medicine**

**MAY 27
15.05-17.20 (EKB)**

Stream №4

Chairs: Dementyeva E.V., Shchepkin D.

15.05-15.20 + 5 min	Dementyeva E.V. Pavlova S.V. Vyatkin Yu.V. Medvedev S.P. Zakian S.M. <i>Novosibirsk</i>	Generating and studying cell models of hypertrophic cardiomyopathy
15.25-15.40 + 5 min	Minin A.S. Zubarev I.V. Rodionov A.S. <i>Ekaterinburg</i>	Using 3D printing to create cheap and customizable cell organoids
15.45-16.00 +5 min	Bobylev A.G. Pashkin M.O. Shymeyko S.A. Yakupova E.I. Vikhlyantsev I.M. Bobyleva L.G. <i>Pushchino</i>	Aggregation of skeletal myosin-binding protein C
16.05-16.20 + 5 min	Yakupova E.I. Bobyleva L.G. Vikhlyantsev I.M. Bobylev A.G. <i>Pushchino</i>	Oligomeric structure of smooth muscle titin
16.25-16.40 + 5 min	Bashkirtseva I. Zaitseva S. Tsvetkov I. Ryashko L. <i>Ekaterinburg</i>	Stochastic excitement in a model of enzyme kinetics
16.45-17.00 +5 min	Kholina E.G. Orekhov Ph.S. Kovalenko I.B., Bozdaganyn M.E., Strakhovskaya M.G. <i>Moscow</i>	Interaction of cationic antiseptics with the bacterial plasma membrane containing cardiolipin revealed by coarse-grain molecular dynamics
17.05-17.20	Nekrasov P.V. Bobylev A.G. Vikhlyantsev I.M. <i>Pushchino</i>	The concept of muscle aging at hibernation

Participants of «Young Scientist' Talk Competition»

**Experimental and computational models
in cardiovascular physiology and cardiology**

**MAY 27
17.20-19.30 (EKB)**

Stream №1

Chairs: Solovyova O., Bernikova O.

17.20-17.40 + 5 min	Khassanov I.Sh. <i>Germany</i>	Remote Patient Monitoring in Interventional Arrhythmology
17.45-18.05 + 5 min	Voigt N. <i>Germany</i>	Atrial cardiomyopathies: Many roads lead to atrial fibrillation
18.10-18.25 + 5 min	Lyubimtseva T. Chumarnaya T. Lebedeva V.K. Lebedev D.S. Solovyova O.E. <i>St.-Petersburg</i>	Evaluation of the relationship between electrical delay time and reverse left ventricular remodeling in patients with resynchronizing quadripole devices // Оценка взаимосвязи между временем электрической задержки и обратным ремоделированием левого желудочка у пациентов с ресинхронизирующими квадриполярными устройствами
18.30-18.45 + 5 min	Nezlobinsky T. Okenov A. Panfilov A. <i>Belgium</i>	Multiparametric large-scale analysis of arrhythmogenic fibrotic textures
18.50-19.05 + 5 min	Iaparov B. Zahradnik I. Moskvin A. Zahradnikova A. <i>Slovakia</i>	RyR distribution affects the properties of calcium sparks in cardiac myocytes. An in silico study
19.10-19.20 + 5 min	Tsvetkova A.S. Bernikova O.G. Ovechkin A.O. Demidova M.M. Platonov P.G. Azarov J. <i>Syktvykar</i>	Melatonin ameliorates activation slowing and decreases the risk of ventricular fibrillation in the porcine model of acute myocardial ischemia
19.20-19.30	Nizamieva A.A. Agladze K.I. Tsvelaya V.A. Balashov V.A. <i>Dolgoprudny</i>	Optical biopacemaker experimental model

Participants of «Young Scientist' Talk Competition»

May 28

ONLINE DAY

**Joint Symposium with “IEEE Ural-Siberian Conference
on Computational Technologies in Cognitive Science,
Genomics and Biomedicine (CSGB)”**

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

Computational and Experimental Techniques in Bio-Medicine and In-Silico Medicine		
MAY 28		
9.00-10.45 (EKB)		
Stream №1		
Chairs: Savostyanov Alexander		
9.00-9.15	Saik Olga Klimontov Vadim <i>Novosibirsk</i>	Bioinformatic analysis by ANDSystem revealed members of IL-6 signaling pathway initiated by glucose variability and involved in diabetic retinopathy
9.15-9.30	Ishchenko Irina Michurina Svetlana Arkhipov Sergey Letyagin Andrey Solovyova Anastasia <i>Novosibirsk</i>	Features of the hyaluronan receptor LYVE-1 expression using 3D modeling technology in liver sinusoidal endothelial cells (LSECs) in C57Bl/6 mice under long-term constant lighting
9.30-9.45	Taskaeva Iuliia Makarova Viktoriia Bgatova Nataliya <i>Novosibirsk</i>	Ultrastructural features of poorly differentiated hepatocellular carcinoma
9.45-10.00	Latyshev Nikolay Kryukova Olga Pyankov Vladimir Stolyar Sergey <i>Krasnoyarsk</i>	Analysis of Ehrlich ascites carcinoma using electron paramagnetic resonance
10.00-10.15	Chernopyatov Danila Nikonov Sergey Nimaev Vadim Bgatova Nataliya Taskaeva Iuliia Mayorov Alexander <i>Novosibirsk</i>	The confocal microscopy for assessment of transdermal transport of the photosensitizer chlorin E6 after non-ablative photothermolysis
10.15-10.30	Lykov Alexander Rachkovskaya Lubov Rachkovsky Edmund <i>Novosibirsk</i>	Compatibility of γ -Al ₂ O ₃ @PDMS modified with SWCNTs or CNFs with platelets
10.30-10.45	Lykov Alexander Rachkovskaya Lubov Poveshchenko Olga Rachkovsky Edmund Surovtseva Maria Kim Irina Bondarenko Natalia Volodin Alexander Bauman Yuri Mishakov Ilya Vedyagin Aleksey <i>Novosibirsk</i>	Biocompatibility of the complex aluminum oxide and polydimethylsiloxane modified with carbon nanofibre

Computational and Experimental Techniques in Bio-Medicine

**MAY 28
11.00-12.45 (EKB)**

Stream №1

Chairs: Lookin Oleg

11.00-11.45	Gorchakov Vladimir Gorchakova Olga Demchenko Georgy <i>Novosibirsk</i>	Parameters of hydration and structure of lymph nodes during the maximum development of lymphoid tissue
11.15-11.30	Shurlygina Anna Rachkovskaya Lubov Shurlygina Anna Nimaev Valery Smagin Alexander Pivkina Anastasiya Rachkovsky Edmund Yastrebova Ekaterina Korolev Maxim Maltsev Valery Letyagin Andrey <i>Novosibirsk</i>	Quantification of the interaction of hemosorbents with red blood cells using scanning flow cytometry
11.30-11.45	Chudinov Vyacheslav Shardakov Igor Litvinov Valery Ivanov Yaroslav Solodnikov Sergey Kondyurin Alexey <i>Perm</i>	To avoid a foreign body reaction for polyurethane implants modified by high-energy ions
11.45-12.00	Zhdanov Aleksei Borisov Vasillii Dorosinskiy Leonid Lucian Evdochim <i>Ekaterinburg</i>	Electric drive control system based on a reversible motor driver
12.00-12.15	Zhdanov Aleksei Negodyaev Konstantin Borisov Vasillii Lucian Evdochim Dorosinskiy Leonid <i>Ekaterinburg</i>	Development of a weight sensor based on strain gauge transducer
12.15-12.30	Podgurskaya Alisa Slotvitsky Mikhail Tsvelaya Valeriya Agladze Konstantin	Diphenhydramine arrhythmogenicity testing using monolayers of human iPSC-derived cardiomyocytes
12.30-12.45	Shatrov Anatoly Kudryavtsev Vladimir <i>Moscow</i>	Sedimentation process visualization of blood erythrocytes on transitive layer "Erythrocytes - Plasma"

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

Plenary Lectures

**MAY 28
13.30-14.55 (EKB)**

Chairs: Savostyanov Alexander, Lookin Oleg

13.30-13.55	Savostyanov Alexander <i>Novosibirsk</i>	Combination of EEG and linguistic methods for searching of neurological markers of personality traits and mental disorders
14.00-14.25	Panfilov Alexandr <i>Belgium</i>	Control of cardiac excitation patterns via combination of computational and experimental tools
14.30-14.55	Efimov Igor <i>USA</i>	A new generation of implantable heart devices: extensible, flexible and soluble bioelectronics

Computational Imaging and Data Processing in Bio-Medicine

**MAY 28
15.00-17.15 (EKB)**

Stream №1

Chairs: Ushenin Konstantin

15.15-15.30	Liou Michelle Liou Jiun-Wei Wang Po-Shan Wu Yu-Te Lee Sheng-Kai Chang Mike S. D. <i>Taiwan</i>	The P200 Component and ECG Very Low-Frequency Power Under Resting-State Conditions
15.30-15.45	Omelchenko Vitaly Vaver Andrey Akimova Anna Kurochkina Yuliya Letyagina Elena Korolev Maxim <i>Novosibirsk</i>	Cardiac valves involvement in ankylosing spondylitis patients, taking different treatment
15.45-16.00	Yerukalareddy Dinesh Reddy Pavlovskiy Evgeniy <i>Novosibirsk</i>	Brain tumor classification based on MR images using GAN as a pre-trained model
16.00-16.15	Ishchenko Irina Svetlana Michurina Svechnikova Natalia Letyagin Andrey Arkipov Sergey Solovyova Anastasia <i>Novosibirsk</i>	Digital 3D technology in the assessment of LYVE-1 expression in skin eczema and type 2 diabetes mellitus
16.15-16.30	Markov Nikita Ushenin Konstantin Bozhko Yakov Arkipov Mikhail Solovyova Olga <i>Ekaterinburg</i>	Heart rate variability reveals two phenotypes of atrial fibrillation
16.30-16.45	Slastnikov Kirill Koscheeva Ekaterina Chupov Alexey Konstantinova Anna <i>Ekaterinburg</i>	Review of instrumental methods for detecting the respiratory signal

Conference time: UTC+5:00 (EKB) (Moscow Time Zone +2 hours)

16.45- 17.00	Lukin Anton Gisina Alisa Devyatkin Dmitry Lupatov Alexey Molodchenkov Alexey Kholodenko Irina <i>Moscow</i>	Method for biomedical information extraction of immunosuppressive cell properties
17.00- 17.15	Rimskaya Elena Apollonova Irina Kudrin Konstantin Otstavnov Stanislav Reshetov Igor <i>Moscow</i>	Development of a mobile application for an independent express assessment of pigmented skin lesions

Computational Modeling in Physiology and Medicine

**MAY 28
17.30-19.00 (EKB)**

Stream №1

Chairs: Ryvkin Alexander

17.30-17.45	Shurlygina Anna Letyagin Andrey Shurlygina Anna Robinson Margarete Belan Ivan Trufakin Valery Borodin Yury <i>Novosibirsk</i>	The effects of modification of the daily rhythm of motor activity on the spatio-temporal organization of the immune system
17.45-18.00	Balakina-Vikulova Nathalie Katsnelson Leonid <i>Ekaterinburg</i>	Work performance in failing myocardium assessed in a mathematical model of the human ventricular myocyte electromechanical coupling
18.00-18.15	Dokuchaev Arsenii Bazhutina Anastasia Khamzin Svyatoslav Zubarev Stepan Solovyova Olga <i>Ekaterinburg</i>	Comparison of His-Purkinje and biventricular pacing in patient-specific computer models
18.15-18.30	Bazhutina Anastasia Dokuchaev Arsenii Khamzin Svyatoslav Solovyova Olga Zubarev Stepan <i>Ekaterinburg</i>	Comparison of CRT optimization results for different accuracy personalized models
18.30-18.45	Markuleva Marina Gerashchenko Mikhail Semenov Anatoly Gerashchenko Sergey <i>Penza</i>	The brachial artery oscillometry process modeling with the pneumo and hydro-cuff technology applying
18.45-19.00	Ali Sarah Motasim Nourhan Adel Hassan Elbeheiry Ahmad Nashaat Haroon, Thanaa Ibrahim Shalaby <i>Egypt</i>	A computational model of cancer photothermal therapy mediated by gold nanoparticles
19.00-19.15	Kursanov Alexander Balakina-Vikulova Nathalie Katsnelson Leonid <i>Ekaterinburg</i>	Arrhythmogenesis in calcium-overloaded human cardiomyocytes in isolation and within cardiac tissue. Simulation study
19.15-19.30	Ryvkin Alexander Markov Nikita Lebedeva Elena Gonotkov Mikhail <i>Ekaterinburg</i>	Studying of the ontogenetic changes in electrophysiological properties of mouse cardiac pacemaker cells