

Conference time: UTC+5:00 (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 + 5 min	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

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**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

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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

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**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. Dzhumaniazova 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

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**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 квадрупольными 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	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