

Conference time: UTC+5:00 (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

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**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	Nekrasova A.V. Tsinker M. <i>Perm</i>	Mathematical modeling of air flow in the upper airways of a person

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PLENARY LECTURES

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

Chairs: Solovyova O., 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
15.10-16.40 (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. Pymentova D. Lessley N. <i>Moscow</i>	On optimal treatment strategy in the mathematical model of prostate cancer
16.00-16.10	Bekero I.D. Tsaturyan A.K. Kruchinin P.A.	Modeling the work of human muscles when body tilting

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+5 мин	Kruchinina A.P. Khoroshun A.A. <i>Moscow</i>	
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