

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
11.10-11.20		DISCUSSION

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

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**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

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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		
15.10-17.55 (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

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

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 +5 min	Filatov I.D. Padalko M.A. Naumov A.M. Nazarikov S.I. Lushnikov A.A. <i>Kaliningrad</i>	Leukocytes counting in a blood smear using segmentation and classification neural networks
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