30 сентября (с 12-00 до 14-00)
Новые материалы и цифровые технологии в клинике
New materials and digital technologies in the clinic

Время

НСК	**МСК**	Авторы	Название	Ключевые слова	Учреждение
12.00	8.00	Roman Kozinets, Vladimir Berikov, Julia Semenova, Vadim Klimontov	Deep learning and machine learning models for predicting day-time glucose in different ranges in patients with type 1 diabetes	type 1 diabetes, insulin, continuous glucose monitoring, time in range, glucose prediction, machine learning, deep learning	RICEL – Branch of IC&G SB RAS
12.15	8.15	Danil Kladov, Vladimir Berikov, Julia Semenova, Vadim Klimontov	Clusters of nocturnal glucose dynamics in patients with type 1 diabetes managed by continuous subcutaneous insulin infusion	type 1 diabetes, continuous subcutaneous insulin infusion, glucose, patterning, cluster analysis	RICEL – Branch of IC&G SB RAS
12.30	8.30	Julia Semenova , Elena Koroleva, Klim Serebrov, Vadim Klimontov	Analysis of continuous glucose monitoring data in patients with type 1 diabetes managed with continuous subcutaneous insulin infusion during hospital stay and after discharge from the hospital	type 1 diabetes, continuous subcutaneous insulin infusion, time in range, glucose variability, continuous glucose monitoring	RICEL – Branch of IC&G SB RAS
12.45	8.45	Elena Koroleva, Rustam Khapaev, Vyacheslav Romanov	Analysis of associations between advanced glycation end-products and vascular complications of type 2 diabetes	diabetes; atherosclerosis; advanced glycation end products	RICEL – Branch of IC&G SB RAS
13.00	9.00	Mikhail Soluianov, Fedor Rakitin, Igor Feofilov, Mikhail Gvozdev	The first results of surgical treatment of stress urinary incontinence in obese women	stress urinary incontinence, obesity, synthetic midurethral slings	RICEL – Branch of IC&G SB RAS
13.15	9.15	Yulia Timofeeva, Viktor Prokofiev, Vladimir Konenkov, Elena G. Koroleva, Alla Shevchenko, Svetlana Aidagulova	Bioinformatic analysis of the results of cytokine genotyping in a benign tumor process among Russian women of Caucasian origin	cytokine genes, single nucleotide polymorphisms, bioinformatic analysis, prognostic biomarkers, uterine leiomyoma	RICEL – Branch of IC&G SB RAS
13.30	9.30				
13.45	9.45	Vasiliy Leonenko, Andrey I. Korzin, Timofey I. Kaparulin	Assessing the applicability of the multiagent modeling approach to the epidemic surveillance of COVID-19 in Russian cities	mathematical epidemiology, covid-19, multiagent model, synthetic population, covasim	ITMO University

30 сентября (с 14-00 до 17-00)

Информационные технологии и моделирование в биоммедицине

Information technology and modeling in biomedicine

14.00	10.00	Tatiana Nesterova, Viktoria Belogurova, Polina Morozova, Olga Solovyova	Investigation of mechanisms of age-related increase in atrial arrhythmia susceptibility using computational ionic models of atrial cardiomyocytes	ionic cellular model, population-based approach, aging, human atrial cardiomyocytes, action potential, calcium transient	IIP UB RAS
14.15	10.15	Evgeniya Olegovna Gusarova, Tatiana Chumarnaya, Roman Rokeakh, Natalya Kosovtsova, Olga Solovyova	Statistical description of the shape and deformation of the left ventricle during the cardiac cycle in extremely low and very low birth weight premature infants in the early neonatal period. Pilot results.	neonatal hemodynamics, premature newborn, functional geometry, geometric morphometrics, neonatal echocardiography	Ural Federal University named after the first President of Russia B.N. Yeltsin
14.30	10.30	Daniil Baev, Evgenii Gerasimov, Vyacheslav Chukanov, Ekaterina Pchitskaya	Anomaly detection using autoencoders for miniscope calcium imaging data analysis	miniscope, autoencoder, artificial neural networks, calcium imaging, acute stress, data analysis	Peter the Great St. Petersburg Polytechnic University
14.45	10.45	Vasiliy Leonenko, Sergey D. Senichev, Aleksandr A. Fandeev	Accelerating multiagent epidemic modeling with surrogate-based methods	mathematical epidemiology, multiagent modeling, surrogate methods, autoencoders	ITMO University
15.00	11.00	Ivan Zolin, Ekaterina Pchitskaya, Vyacheslav Chukanov	TriDeFusion: Enhanced denoising algorithm for 3D fluorescence microscopy images integrating modified Noise2Noise and Non-local means	fluorescence microscopy, confocal microscopy, denoising, computer vision, deep learning, convolution neural network	Peter the Great St. Petersburg Polytechnic University
15.15	11.15	Andrey Pershin, Vasilii Borisov	Automated Segmentation of Retinal Biomarkers Using U-Net3+ in Optical Coherence Tomography Images for Enhanced Diagnosis of Age-Related Macular Degeneration	optical coherence tomography, segmentation, deep learning	Ural Federal University Named after the First President of Russia B. N. Yeltsin
15.30	11.30	Sergei Pravdin	Anti-tachycardia pacing simulation in the human heart left ventricle using the Luo--Rudy model	cardiac modeling, parallel heart simulation, low-voltage cardioversion, overdrive pacing, spiral waves, anti-tachycardia pacing, heart electrotherapy, implantable cardioverter-defibrillator	N.N. Krasovskii Institute of Mathematics and Mechanics of the Ural Branch of the Russian Academy of Sciences
15.45	11.45	Evgeniy Kuklin, Sergei Pravdin	Dynamics of Multi-armed Spiral	spiral waves, overdrive pacing,	N.N. Krasovskii

			Waves	symmetry, computer applications in life and medical science	Institute of Mathematics and Mechanics of the Ural Branch of the Russian Academy of Sciences
16.00	12.00	Natalia Neustroeva, Sergei Pravdin	Overdrive Pacing Assimilation in a Personalized Human Heart Model	computer applications in life and medical science, spiral waves, cardiac modeling, overdrive pacing	N.N. Krasovskii Institute of Mathematics and Mechanics of the Ural Branch of the Russian Academy of Sciences
16.15	12.15	Yulia Preobrazhenskaya, Pavel Kulemin	Tendencies of Unsupervised Learning on ECG Signals	ecg signal analysis, convolutional autoencoder, specialized neurons, unsupervised learning, mann–whitney u test	Lobachevsky State University of Nizhny Novgorod
17.00	13.00	Denis Mikhailapov, Kirill Kirillov, Andrey Tulupov, Vladimir Berikov	Segmentation of 3D Non-Contrast CT Brain Images Using Transformer Neural Networks	neural networks, swin-transformer, semantic segmentation, ischemic stroke, non-contrast ct	Sobolev Institute of Mathematics of the Siberian Branch of the RAS
17.15	13.15	Elvira Sobolevskaya, Michail Smagin, Oleg Shumkov, Rustam Khapaev, Vadim Nimaev	Integrated approach to forecasting and evaluation of endovascular treatment outcomes in patients with chronic lower limb ischemia	cardiovascular diseases, trophic ulcers, critical ischemia, diabetes mellitus, obliterating diseases, wifi system, revascularization, endovascular intervention, restenosis, global limb anatomical staging system, ultrasound duplex scanning, personalized treatment.	RICEL – Branch of IC&G SB RAS
17.30	13.30	Elviray Sobolevskaya, Oleg Shumkov, Elena Koroleva, Vladimir Anishchenko	Dynamics of Lipid Profile Parameters After Mini-Gastric Bypass and Sleeve Gastrectomy Combined with Single Anastomosis Sleeve-Ileal Bypass (SASI Surgery)	type 2 diabetes; morbid obesity; mini gastric bypass; sleeve gastrectomy combined with single anastomosis sleeve-ileal bypass; total cholesterol;	RICEL – Branch of IC&G SB RAS

01 октября (с 12-00 до 13-30)
Системные алгоритмы в биомедицине
System algorithms in biomedicine

12.00	8.00	Andrey Letyagin, Vladimir Nebrat, Natalia Bgatova	The interstitial channel system as a photobiomodulation regulatory system of the body	interstitium; interstitial fluid; primary fibrous mesh matrices of the interstitium, long-distance interstitial tracts; visualization of flows, photobiomodulation, model of dissipative structures of water	RICEL – Branch of IC&G SB RAS
12.15	8.15	Anastasia Serykh, Svetlana Michurina, Irina Ishchenko, Valentina Arkhipova, Sergey Arkhipov, Evgeny Zavjalov	Effects of melatonin on brain's glymphatic system and cell hypoxia in mice with a genetically determined model of type II diabetes mellitus	glymphatic system, melatonin, hif-1α, type 2 diabetes mellitus, hypoxia	FRC FTM, NIIEKM; RICEL- Branch of IC&G SB RAS
12.30	8.30	Vadim Nimaev, Irina Shvab, Rustam Khapaev	Bioinformatics analysis of genes involved in the development of adipogenesis in lymphedema	lymphatic system, lymphedema, adipogenesis, gene network.	RICEL – Branch of IC&G SB RAS
12.45	8.45	Rustam Khapaev, Irina Shvab, Vadim Nimaev	Upper limbs volumetry by the disc method: methodology and results evaluation for breast cancer related lymphedema	volumetry, disc method, upper limb lymphedema, cancer related lymphedema, methodology	RICEL – Branch of IC&G SB RAS
13.00	9.00	Nataliya Bgatova, Nikita Skudin, Stanislav Serafimov, Dmitriy Chernykh, Andrey Letyagin	Structural organization of interstitial pathways of tissue fluid movement	gingival mucosa, synovium, eye, colon adenocarcinoma, interstitium, ultrastructure	RICEL – Branch of IC&G SB RAS

01 октября (с13-30 до 15-00)

Новые материалы в биомедицине и клинике

New materials in biomedicine and clinic

13.30	9.30	Anastasia Serykh, Svetlana Michurina, Irina Ishchenko, Lyubov Rachkovskaya, Sergey Arkhipov, Valentina Arkhipova	Effect of aluminum oxide and polydimethylsiloxane composites modified with melatonin and lithium on the expression of LYVE-1 and HIF-1α in db/db mouse brain	type 2 diabetes mellitus, obesity, glymphatic system, sorbents, lithium, melatonin, lyve-1, hif1a, hypoxia	FRC FTM, NIIEKM; RICEL-Branch of IC&G SB RAS
13.45	9.45	Natalya Slazhneva, Natalya Bondarenko	Plant extracts provide antiosteoporotic effect in vitro	osteoblasts, osteoclasts, osteoporosis, plant extracts, rice husk, silicon	RICEL – Branch of IC&G SB RAS
14.00	10.00	Edmund Rachkovsky, Lubov Rachkovskaya, Andrey Letyagin, Svetlana Michurina, Natalia Bgatova, Maxim Korolev	Biosimility in the properties of medical sorbents	medical sorbents, modifiers, structure, surface nature, safety	RICEL – Branch of IC&G SB RAS
14.15	10.15	Natalia Obanina, Nataliya Bgatova	Effect of lithium and chloroquine on	chloroquine, lithium, neuroprotection,	RICEL – Branch of

			neuronal ultrastructure in a melanoma mice model	melanoma, ultrastructure	IC&G SB RAS
14.30	10.30	Alexandra Shvetsova, Alexey Churin, Maxim Korolev, Konstantin Ershov, Pavel Madonov	Ultrastructural and general toxic parallels of pegylated hyaluronidase	hyaluronidase, toxicity, ultrastructure, experimental animals.	RICEL – Branch of IC&G SB RAS

01 октября (с 15-00 до 17-00)

Геномные и постгеномные подходы в биомедицине и фармакологии

Genomic and postgenomic approaches in biomedicine and pharmacology

15.00	11.00	Peter Evseev	Diversity of Tailed Bacteriophages Infecting Pseudomonas aeruginosa	phages, bacteriophages, pseudomonas aeruginosa, phage genomics, phage therapy	Institute of Bioorganic Chemistry
15.15	11.15	Elena Bondareva, Alexander Evstropov, Pavel Madonov, Lubov Burova, Elizaveta Lyubushkina	Analysis of the potential clinical application of the peptidomimetic SAMP-1 to eliminate biofilms caused by S. aureus	antimicrobial peptide (amp), staphylococcus aureus, biofilm.	RICEL – Branch of IC&G SB RAS
15.30	11.30	Elizaveta Lyubushkina, Elena Bondareva, Marina Soldatova, Pavel Madonov	Experimental determination of the “therapeutic window” of the synthetic peptidomimetic SAMP-1	samp-1, minimum inhibitory concentration, acute toxicity, semi-lethal doses, “therapeutic window”	RICEL – Branch of IC&G SB RAS
15.45	11.45	Anna Davydova	Aptamers joined with a peroxidase-mimicking DNAzyme as potential reporters for colorimetric detection of protein biomarkers	dnazyme, aptamer, hemin, tmb oxidation, colorimetric detection, il-17a	Institute of chemical biology and fundamental medicine SB RAS
16.00	12.00	Natalya Bondarenko, Vitaly Omelchenko, Natalya Slazhneva, Mariya Vorobyeva, Nadezhda Kropacheva, Maxim Korolev	An influence of anti-sclerostin oligonucleotide aptamers on viability and proliferation of osteoblasts and osteoclasts in vitro	aptamers, osteoblasts, osteoclasts, wnt-pathway, sclerostin, cytotoxicity	RICEL – Branch of IC&G SB RAS