

**May 28**

**ONLINE DAY**

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

## 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	<b>Saik Olga</b> 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	<b>Ishchenko Irina</b> 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	<b>Taskaeva Iuliia</b> Makarova Viktoriia Bgatova Nataliya <i>Novosibirsk</i>	Ultrastructural features of poorly differentiated hepatocellular carcinoma
9.45-10.00	<b>Latyshev Nikolay</b> Kryukova Olga Pyankov Vladimir Stolyar Sergey <i>Krasnoyarsk</i>	Analysis of Ehrlich ascites carcinoma using electron paramagnetic resonance
10.00-10.15	<b>Chernopyatov Danila</b> 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	<b>Lykov Alexander</b> Rachkovskaya Lubov Rachkovsky Edmund <i>Novosibirsk</i>	Compatibility of $\gamma$ -Al <sub>2</sub> O <sub>3</sub> @PDMS modified with SWCNTs or CNFs with platelets
10.30-10.45	<b>Lykov Alexander</b> 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	<b>Gorchakov Vladimir</b> 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	<b>Shurlygina Anna</b> 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	<b>Chudinov Vyacheslav</b> 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	<b>Zhdanov Aleksei</b> Borisov Vasili Dorosinskiy Leonid Lucian Evdochim <i>Ekaterinburg</i>	Electric drive control system based on a reversible motor driver
12.00-12.15	<b>Zhdanov Aleksei</b> Negodyaev Konstantin Borisov Vasili Lucian Evdochim Dorosinskiy Leonid <i>Ekaterinburg</i>	Development of a weight sensor based on strain gauge transducer
12.15-12.30	<b>Podgurskaya Alisa</b> Slotvitsky Mikhail Tsvelaya Valeriya Agladze Konstantin	Diphenhydramine arrhythmogenicity testing using monolayers of human iPSC-derived cardiomyocytes
12.30-12.45	<b>Shatrov Anatoly</b> Kudryavtsev Vladimir <i>Moscow</i>	Sedimentation process visualization of blood erythrocytes on transitive layer "Erythrocytes - Plasma"

Plenary Lectures

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

Chairs: Savostyanov Alexander, Lookin Oleg

13.30-13.55	<b>Savostyanov Alexander</b> <i>Novosibirsk</i>	Combination of EEG and linguistic methods for searching of neurological markers of personality traits and mental disorders
14.00-14.25	<b>Panfilov Alexandr</b> <i>Belgium</i>	Control of cardiac excitation patterns via combination of computational and experimental tools
14.30-14.55	<b>Efimov Igor</b> <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	<b>Liou Michelle</b> 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	<b>Omelchenko Vitaly</b> 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	<b>Yerukalareddy Dinesh Reddy</b> Pavlovskiy Evgeniy  <i>Novosibirsk</i>	Brain tumor classification based on MR images using GAN as a pre-trained model
16.00-16.15	<b>Ishchenko Irina</b> 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	<b>Markov Nikita</b> Ushenin Konstantin Bozhko Yakov Arkipov Mikhail Solovyova Olga  <i>Ekaterinburg</i>	Heart rate variability reveals two phenotypes of atrial fibrillation
16.30-16.45	<b>Slastnikov Kirill</b> Koscheeva Ekaterina Chupov Alexey Konstantinova Anna  <i>Ekaterinburg</i>	Review of instrumental methods for detecting the respiratory signal
16.45-17.00	<b>Lukin Anton</b> Gisina Alisa Devyatkin Dmitry	Method for biomedical information extraction of immunosuppressive cell properties

	Lupatov Alexey Molodchenkov Alexey Kholodenko Irina  <i>Moscow</i>	
17.00- 17.15	<b>Rimskaya Elena</b> 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	<b>Shurlygina Anna</b> 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	<b>Balakina-Vikulova Nathalie</b> 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	<b>Dokuchaev Arsenii</b> 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	<b>Bazhutina Anastasia</b> 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	<b>Markuleva Marina</b> 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	<b>Ali Sarah Motasim</b> 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	<b>Kursanov Alexander</b> 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	<b>Ryvkin Alexander</b> Markov Nikita Lebedeva Elena Gonotkov Mikhail  <i>Ekaterinburg</i>	Studying of the ontogenetic changes in electrophysiological properties of mouse cardiac pacemaker cells