

# II JOINT LIFE SCIENCES FORUM

◆ VI CIS CONGRESS ON PHYSIOLOGY  
◆ VI RUSSIAN BIOCHEMICAL CONGRESS  
◆ IX RUSSIAN SYMPOSIUM “PROTEINS AND PEPTIDES”

Sochi–Dagomys, October 1–6, 2019

## PROGRAM-AT-A-GLANCE

### OCTOBER 1<sup>st</sup>

<b>11.00 – 19.00</b>	Foyer	<b>Registration Desk Open</b>
<b>16.00 – 16.30</b>	Main Hall	<b>CONGRESS OPENING</b> Chairs: Alexander Gabibov, Revaz Sepiashvili, Vladimir Chekhonin, Kurt Wüthrich
<b>16:30 – 18:55</b>	Main Hall	<b>PLENARY SESSION</b> Chairs: Alexander Gabibov, Revaz Sepiashvili <i>Keynote Lecture</i> <b>KURT WÜTHRICH</b> Signal transfer by G protein-coupled receptors <i>Keynote Lecture</i> <b>VLADIMIR CHEKHONIN</b> Vector nanocontainer systems in diagnostics and therapy of brain tumors <i>Plenary Lecture</i> <b>SERGEY DEYEV</b> Supramolecular structures-based oncotheranostics <i>Plenary Lecture</i> <b>MIKHAIL OSTROVSKY</b> Molecular physiology of the vision
16.30 – 17.15 17.15 – 17:55 17:55 – 18:25 18:25 – 18:55		
<b>19:10 – 21:00</b>		<b>Get Together Parthy</b>

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OCTOBER 2<sup>nd</sup>

08:00 – 10:00	Main Hall	<b>PLENARY SESSION OF THE IX RUSSIAN SYMPOSIUM "PROTEINS AND PEPTIDES"</b> Chair: Vadim Ivanov <b>ALEXANDER ARCHAKOV</b> Challenges of the Human Proteome Project: 10-year experience of the Russian Consortium <b>ALEXEY FINKELSTEIN</b> 60+ years of protein folding <b>MIKHAIL BOGDANOV</b> Membrane protein folding <b>VALENTIN GORDELIY</b> Membrane proteins: Methods, structure, molecular mechanisms and applications <b>IVAN SMIRNOV</b> Ultrahigh-throughput screening technologies to discover new therapeutics	
08:00 – 10:00	Hall # 1	<b>S Y M P O S I A</b>	<b>CREATION OF INTELLECTUAL SENSOR AND BIOMECHATRON REHABILITATION TECHNOLOGIES FOR PATIENTS WITH SEVERE DAMAGES OF THE SENSOR-MOTOR SYSTEM BASED ON THE INTEGRATION OF THE NEWEST ACHIEVEMENTS IN BRAIN SCIENCES</b> Chairs: Anatoly Grigoriev, Inessa Kozlovskaya. 1
08:00 – 10:00	Hall # 2		
08:00 – 10:00	Hall # 3		<b>SYNAPTIC AND EXTRASYNAPTIC MECHANISMS OF SIGNAL TRANSMISSION IN NORM AND PATHOLOGY</b> Chairs: Lev Magazanik, Alexey Semyanov, Alexey Zaitsev, Andrey Zefirov. Session 1
08:00 – 10:00	Hall # 4		<b>INTEGRATIVE MECHANISMS OF REGULATION OF VISCERAL FUNCTIONS</b> Chairs: Lyudmila Filaretova, P. Ferdinandy
08:00 – 10:00	Hall # 5		<b>INHIBITION AND PLASTICITY</b> Chairs: Pavel Balaban, Alexey Malyshev
08:00 – 10:00	Hall # 6		<b>MODERN PHYSIOLOGY OF THE HEART</b> (Chairs: Denis Abramochkin, Alexander Panfilov, Irina Roshchevskaya, Mikhail Roshchevsky, Olga Solovyova) Session 1
10:15 – 10:55	Main Hall	<i>Ivan Pavlov Keynote Lecture</i> <b>MIKHAIL UGRYUMOV</b> The brain as a "conductor" of the development and regulation of the most important functions of the body Moderators: Svyatoslav Medvedev, Mikhail Ostrovskiy	
10:55 – 11:35	Main Hall	<i>Keynote Lecture</i> <b>ARIEH WARSHEL</b> Modeling the action of biological molecules Moderators: Michael Blackburn, Alexander Gabibov	
11:35 – 12:00		<b>Coffee Break</b>	
12:00 – 12:30	Main Hall	<i>Leon Orbeli Keynote Lecture</i> <b>YURI NATOCHIN</b> Physiology: modernity and classic Moderators: Revaz Sepiashvili, Vsevolod Tkachuk	
12:30 – 14:00	Main Hall	<b>PLENARY SESSION</b> Chairs: Olga Dontsova, Vadim Ivanov <b>VSEVOLOD TKACHUK</b> Regulation of cell renewal, tissue regeneration and repair processes <b>MICHAEL BLACKBURN</b> TBA <b>PIOTR SERGIEV</b> Functional role of new mitochondrial proteins	
12:30 – 13:00			
13:00 – 13:30			
13:30 – 14:00			
14:00 – 15:00		<b>Lunch Time</b>	

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OCTOBER 2<sup>nd</sup>

15:00 – 15:40	Main Hall	<i>Ivan Sechenov Keynote Lecture</i> <b>ALEXANDER NOZDRACHEV</b> Multimodal interoceptive sensory system Moderators: Oleg Bukharin, Mikhail Roshchevsky	
15:40 – 16:20	Main Hall	<i>Plenary Lecture</i> <b>ALEXEY EGOROV, MARIA RUBTSOVA</b> Bacterial enzymes – targets of beta-lactams: evolution and resistance Moderator: Sergey Kochetkov	
16:30 – 18:30	Main Hall	<b>S Y M P O S I A</b>	<b>CREATION OF INTELLECTUAL SENSOR AND BIOMECHATRON REHABILITATION TECHNOLOGIES FOR PATIENTS WITH SEVERE DAMAGES OF THE SENSOR-MOTOR SYSTEM BASED ON THE INTEGRATION OF THE NEWEST ACHIEVEMENTS IN BRAIN SCIENCES</b> Chairs: anatoly Grigoriev, Inessa Kozlovskaya. Session 2
16:30 – 18:30	Hall # 1		<b>NEURODEGENERATIVE DISEASES: FROM BASIC KNOWLEDGE OF PATHOGENESIS MECHANISMS TO DIAGNOSTICS AND TREATMENT</b> Chairs: Mikhail Ugryumov (Moderators: Nataliya Bobkova, Nataliya Gulyaeva, Svetlana Limborskaya, Piotr Slominsky)
16:30 – 18:30	Hall # 2		<b>MOLECULAR MECHANISMS OF KIDNEY FUNCTION IN HOMEOSTASIS</b> Chairs: Fira Dzugkoeva, Yuri Natochin
16:30 – 18:30	Hall # 3		<b>PROTEINS AND PEPTIDES “Search for New Natural Peptides and Proteins and Their Isolation”</b> Chairs: Yuri Utkin, Alexander Vassilevsky. Session 1
16:30 – 18:30	Hall # 4		<b>NEUROGENESIS IN THE HIPPOCAMPUS: FUNCTIONAL VALUE IN THE CONTINUUM “PLASTICITY – PATHOLOGY”</b> Chairs: Viktor Aniol, Mikhail Stepanichev
16:30 – 18:30	Hall # 5		<b>PROTEINS AND PEPTIDES “Physical-Chemical Methods in Study of Peptide and Protein Structure ‘Structure—Function’ Relationship”</b> Chairs: Roman Efremov, Alexey Finkelstein. Session 1 (Moderators: Roman Efremov, Valentin Gordeliy)
16:30 – 18:30	Hall # 6	<b>BIOCHEMISTRY AND MOLECULAR MEDICINE</b> Chairs: Boris Dzantiev, Alexey Egorov, Nataliya Klyachko. Session 1 “New Trends in Bio-Drug Design” (Moderators: Nataliya Klyachko, Ekaterina Kolesanova)	
18:40 – 19:40	Main Hall	<i>Plenary Lecture</i> <b>ALEXANDER NOZDRACHEV</b> Nobel Prizes in Physiology or Medicine (Biology) Moderator: Mikhail Roshchevsky	
09.00 – 17.00		<b>YOUNG SCIENTISTS’ COMPETITION. Poster session</b>	

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OCTOBER 3<sup>rd</sup>

08:00 – 10:00	Main Hall	<b>S Y M P O S I A</b>	<b>PROTEINS AND PEPTIDES “Biological Functions and Mechanisms of Action of Peptides and Proteins”</b> Chairs: Alexei Belogurov, Sergey Deyev. Session 1
08:00 – 10:00	Hall # 1		<b>MOLECULAR MECHANISMS OF HYPOXIA</b> Chairs: Lyudmila Lukyanova, Elena Rybnikova, Igor Zhuravin
08:00 – 10:00	Hall # 2		<b>MOLECULAR IMAGING</b> Chair: Alexander Savitsky
08:00 – 10:00	Hall # 3		<b>SPACE AND GRAVITATION PHYSIOLOGY</b> Chairs: Б.С. Шенкман, Э.А. Бухараева
08:00 – 10:00	Hall # 4		<b>PLANT BIOCHEMISTRY</b> Chairs: Alexander Grechkin, Dmitry Los
08:00 – 10:00	Hall # 5		<b>FUNCTIONAL GENOMICS</b> Chairs: Sergei Razin, Egor Vassetzky
08:00 – 10:00	Hall # 6		<b>BIOCHEMISTRY AND MOLECULAR MEDICINE</b> Chairs: Boris Dzantiev, Alexey Egorov, Nataliya Klyachko. Session 2 “Structure of Immunoglobulins and New Vaccines” (Moderators: Alexey Egorov, Andrey Vasin)
10:15 – 11:00	Main Hall	<i>Keynote Lecture</i> <b>AARON CIECHANOVER</b> : The revolution of personalized medicine: are we going to defeat all diseases and at what price? Moderator: Revaz Sepiashvili	
11:00 – 11:40	Main Hall	<b>PLENARY SESSION</b> Chairs: <b>ALEXEY BELOGUROV</b> : Molecular mechanisms of substrates recognition by regulatory proteasome subparticles <b>DMITRY CHUDAKOV</b> : Analysis of T cell receptor and antibody repertoires: practical applications	
11:00 – 11:20			
11:20 – 11:40			
11:40 – 12:10		<b>Coffee Break</b>	
12:10 – 13:50	Main Hall	<b>PLENARY SESSION</b> Chair: Alexander Gabibov <b>ANTON MAXIMOV</b> Molecular mechanisms of memory storage <b>VICTOR TARABYKIN</b> Molecular genetic bases for the cerebral cortex development <b>ILYA BEZPROZVANNY</b> Sigma-1 receptor as a new target to treat neurodegenerative diseases <b>SERGEY RAZIN</b> 3D genomics	
12:10 – 12:35			
12:35 – 13:00			
13:00 – 13:25			
13:25 – 13:50			
13:50 – 14:45		<b>Lunch Time</b>	
14:45 – 15:45	Main Hall	<b>PLENARY SESSION</b> Chairs: Lev Magazanik, Tatiana Slavyanskaya <b>RUDOLF VALENTA</b> : Towards prophylactic vaccination against allergy <b>MENACHEM SEGAL</b> : Alzheimer’s disease in mouse hippocampal slices and culture	
14:45 – 15:15			
15:15 – 15:45			

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OCTOBER 3<sup>rd</sup>

16:00 – 18:00	Main Hall	<b>S Y M P O S I A</b>	<b>PROTEINS AND PEPTIDES “Innovative Peptide- and Protein-Based Medicines”</b> Chairs: Nikolai Myasoedov, Tatiana Ovchinnikova. Session 1
16:00 – 18:00	Hall # 1		<b>PHYSIOLOGY OF THE IMMUNE SYSTEM</b> Chairs: Revaz Sepiashvili, Tatiana Slavyanskaya, Valery Chereshev. Session 1
16:00 – 18:00	Hall # 2		<b>CHEMISTRY AND BIOLOGY OF NUCLEIC ACIDS</b> (Chairs: Georgy Georgiev, Olga Dontsova, Andrei Konevega, Maria Rubtsova, Piotr Sergiev). Session 1 “Organization, Maintenance and Functioning of the Genome”
16:00 – 18:00	Hall # 3		<b>MODERN PHYSIOLOGY OF THE HEART</b> (Chairs: Denis Abramochkin, Alexander Panfilov, Irina Roshchevskaya, Mikhail Roshchevsky, Olga Solovyova) Session 2
16:00 – 18:00	Hall # 4		<b>PROTEINS AND PEPTIDES “Search for New Natural Peptides and Proteins and Their Isolation”</b> Chairs: Yuri Utkin, Alexander Vassilevsky. Session 2
16:00 – 18:00	Hall # 5		<b>PHYSICAL AND CHEMICAL METHODS IN RESEARCH OF PHYSIOLOGICAL PROCESSES AND SYSTEMS</b> Chairs: Vladimir Oleinikov, Irina Zavestovskaya
16:00 – 18:00	Hall # 6		<b>BIOCHEMISTRY AND MOLECULAR MEDICINE</b> Chairs: Boris Dzantiev, Alexey Egorov, Nataliya Klyachko). Session 3. “Neurobiochemistry” (Chairs: Svetlana Demyanenko, Sergey Seredenin, Piotr Slominsky)
16:00 – 18:00	Hall # 7		<b>MOLECULAR CELL PHYSIOLOGY. RECEPTORS, ION CHANNELS AND SYGNALLING SYSTEMS</b> Chairs: Pavel Avdonin, Elena Kaznacheeva, Sergey Kolesnikov, Denis Tikhonov) Session 1
18:00 – 18:15		<b>Break</b>	
18:15 – 20:16	Main Hall	<b>S Y M P O S I A</b>	<b>CHEMISTRY AND BIOLOGY OF NUCLEIC ACIDS</b> Chairs: Georgy Georgiev, Olga Dontsova, Andrei Konevega, Maria Rubtsova, Piotr Sergiev. Session 2 “Functional and Regulatory RNAs”
18:15 – 20:16	Hall # 1		<b>PHYSIOLOGY OF THE IMMUNE SYSTEM</b> Chairs: Revaz Sepiashvili, Tatiana Slavyanskaya, Valery Chereshev. Session 2
18:15 – 20:16	Hall # 2		<b>NEUROBIOLOGY OF ADDICTIVE DISORDERS</b> Chairs: Alexey Egorov, Piotr Shabanov
18:15 – 20:16	Hall # 3		<b>PHYSIOLOGICAL ASPECTS OF TUMOR GROWTH</b> Chairs: Mamed Aliev, Mikhail Krasilnikov
18:15 – 20:16	Hall # 4		<b>PROTEINS AND PEPTIDES “Physical-Chemical Methods in Study of Peptide and Protein Structure. ‘Structure—Function’ Relationship”</b> Chairs: Roman Efremov, Alexey Finkelstein. Session 2 (Moderators: Alexey Finkelshtein, Vladimir Polshakov)
18:15 – 20:16	Hall # 5		<b>FUNCTIONAL GENOMICS</b> Chairs: Sergei Razin, Egor Vassetzky
18:15 – 20:16	Hall # 6		<b>BIOCHEMISTRY AND MOLECULAR MEDICINE</b> Chairs: Boris Dzantiev, Alexey Egorov, Nataliya Klyachko). Session 4. “Principles and Methods of Molecular Diagnostics (Moderators: Boris Dzantiev, Ilya Kurochkin)
18:15 – 20:16	Hall # 7		<b>MOLECULAR CELL PHYSIOLOGY. RECEPTORS, ION CHANNELS AND SYGNALLING SYSTEMS</b> Symposium Chairs: Pavel Avdonin, Elena Kaznacheeva, Sergey Kolesnikov, Denis Tikhonov) Session 2
20:30 – 21:00		<b>CIS UNION OF PHYSIOLOGICAL SOCIETIES: PLENUM OF THE BOARD</b>	
09.00 – 17.00		<b>YOUNG SCIENTISTS’ COMPETITION. Poster session</b>	

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## PROGRAM-AT-A-GLANCE

OCTOBER 4<sup>th</sup>

08:00 – 10:00	Main Hall	<b>S Y M P O S I A</b>	<b>PROTEINS AND PEPTIDES «Biological Functions and Mechanisms of Action of Peptides and Proteins»</b> Chairs: Alexei Belogurov, Sergey Deyev. Session 2
08:00 – 10:00	Hall # 1		<b>CHEMISTRY AND BIOLOGY OF NUCLEIC ACIDS</b> Chairs: Georgy Georgiev, Olga Dontsova, Andrei Konevega, Maria Rubtsova, Piotr Sergiev. Session 3 “Transcription and Translation”
08:00 – 10:00	Hall # 2		<b>BIOENGINEERING: FUNDAMENTAL BASICS AND APPLICATIONS</b> Chairs: Vladimir Popov, Alexander Yanenko. Session 1 (Moderators: Vladimir Popov, Alexander Yanenko)
08:00 – 10:00	Hall # 3		<b>PHYSIOLOGICAL MECHANISMS OF HEALTH AND ITS TARGETED FORMATION</b> Chairs: Fedor Furdui, Valentina Chokine.
08:00 – 10:00	Hall # 4		<b>MOLECULAR IMAGING</b> Chair: Alexander Savitsky. Session 2
08:00 – 10:00	Hall # 5		<b>GENOM. PROTEOM. METABOLOM</b> Chairs: Alexander Archakov, Vadim Govorun, Andrei Lisitsa, Elena Ilina Session 1 “Genomics and Metagenomics” (Moderators: Eduard Generozov, Elena Filatova)
08:00 – 10:00	Hall # 6		<b>BIOCHEMISTRY AND MOLECULAR MEDICINE</b> Chairs: Boris Dzantiev, Alexey Egorov, Nataliya Klyachko. Session 5. “Molecular Oncology” (Moderators: Elena Kalinina, Nikolai Litvyakov)
08:00 – 10:00	Hall # 7		<b>MOLECULAR CELL PHYSIOLOGY. RECEPTORS, ION CHANNELS AND SYGNALLING SYSTEMS</b> (Chairs: Pavel Avdonin, Elena Kaznacheeva, Sergey Kolesnikov, Denis Tikhonov) Session 3
10:15 – 11:00	Main Hall	<i>Platon Kostyuk Keynote Lecture</i> <b>SVYATOSLAV MEDVEDEV</b> The hidden links of the brain systems Moderators: Mikhail Ostrovsky, Mikhail Ugryumov	
11:00 – 11:30	Main Hall	<i>Iliia Metchnikoff Keynote Lecture</i> <b>OLEG BUKHARIN</b> Infectology from Iliia Metchnikoff to the present day Moderators: Irina Balmasova, Sergey Deyev	
11.30 – 12.00		<b>Coffee Break</b>	
12.00 – 13:20	Main Hall	<b>PLENARY SESSION</b> Chair: Alexey Egorov <b>SERGEY KOCHETKOV</b> Cell reactions at viral infection <b>VADIM GOVORUN, ELENA ILINA</b> Metaboloc potential of gut microbiota <b>NIKOLAI RAVIN</b> Metagenomics: genome analysis of microorganisms without their cultivation	
13:20 – 14:20		<b>Lunch Time</b>	
14.20 – 15.00	Main Hall	<i>Keynote Lecture</i> <b>VALERY CHERESHNEV, MARGARITA CHERESHNEVA</b> The development of physiology and immunology: Sechenov, Metchnikoff, Pasteur Moderators: Alexander Nozdrachev, Tatiana Slavyanskaya	
15:00 – 15:45	Main Hall	<b>PLENARY SESSION</b> Chair: Alexander Grechkin <b>ILYA YAMPOLSKY</b> Mechanisms of light emission by living organisms <b>EVGENY NIKOLAEV</b> Mass spectrometry assisted tissue imaging. The current state of research	

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OCTOBER 4<sup>th</sup>

16:00 – 18:00	Main Hall	<b>S Y M P O S I A</b>	<b>SYNAPTIC AND EXTRASYNAPTIC MECHANISMS OF SIGNAL TRANSMISSION IN NORM AND PATHOLOGY</b> Chairs: Lev Magazanik, Alexey Semyanov, Alexey Zaitsev, Andrey Zefirov. Session 2
16:00 – 18:00	Hall # 1		<b>PROBLEMS OF SELECTION, PERFORMANCE AND ADAPTATION OF HUMAN IN THE FAR NORTH AND IN THE ARCTIC</b> Chairs: Evgeny Boiko, Arkady Maximov
16:00 – 18:00	Hall # 2		<b>FUNCTIONAL INTERACTIONS BETWEEN HUMAN BRAIN STRUCTURES AS THE BASIS OF THE BRAIN SYSTEM ACTIVITY</b> Chairs: Maxim Kireev, Svyatoslav Medvedev
16:00 – 18:00	Hall # 3		<b>CHEMISTRY AND BIOLOGY OF NUCLEIC ACIDS</b> Chairs: Georgy Georgiev, Olga Dontsova, Andrei Konevega, Maria Rubtsova, Piotr Sergiev. Session 4 “Translation and RNA Tools”
16:00 – 18:00	Hall # 4		<b>PROTEINS AND PEPTIDES “Bioengineering of Proteins and Peptides”</b> Chairs: Dmitry Dolgikh, Alexey Fedorov. Session 1
16:00 – 18:00	Hall # 5		<b>GENOM. PROTEOM. METABOLOM</b> Chairs: Alexander Archakov, Vadim Govorun, Andrei Lisitsa, Elena Ilina Session 2 “Genomics and Metagenomics” (Moderators: Elena Ilina, Alexander Merkel)
16:00 – 18:00	Hall # 6		<b>BIOCHEMISTRY AND MOLECULAR MEDICINE</b> Chairs: Boris Dzantiev, Alexey Egorov, Nataliya Klyachko. Session 6. “Molecular Oncology” (Moderators: Konstantin Efetov, Elena Mil)
16:00 – 18:00	Hall # 7		<b>GLYCOBIOLOGY</b> Chairs: Nikolai Bovin, Tatiana Gorshkova. Session 1 (Moderators: Lyudmila Kozlova, Leonid Kononov)
18:00 – 18:15		<b>Break</b>	
18:15 – 20:15	Main Hall	<b>S Y M P O S I A</b>	<b>PROTEINS AND PEPTIDES “Chemistry and Biology of Enzymes”</b> Chairs: Sergey Kochetkov, Olga Lavrik, Ivan Smirnov. Session 1
18:15 – 20:15	Hall # 1		<b>SYNAPTIC AND EXTRASYNAPTIC MECHANISMS OF SIGNAL TRANSMISSION IN NORM AND PATHOLOGY</b> Chairs: Lev Magazanik, Alexey Semyanov, Alexey Zaitsev, Andrey Zefirov. Session 3
18:15 – 20:15	Hall # 2		<b>PROTEINS AND PEPTIDES «Innovative Peptide- and Protein-Based Medicines”</b> Chairs: Nikolai Myasoedov, Tatiana Ovchinnikova. Session 2
18:15 – 20:15	Hall # 3		<b>TEACHING PHYSIOLOGY.</b> Round Table Discussion Moderators: Vitaly Degtyarev, Alexander Nozdrachev, Mikhail Roshchevsky, Revaz Sepiashvili
18:15 – 20:15	Hall # 4		<b>REGENERATIVE PHYSIOLOGY / BIOCHEMICAL ASPECTS OF CELL TECHNOLOGIES</b> Chairs: Lyudmila Buravkova, Maria Lagarkova
18:15 – 20:15	Hall # 5		<b>GENOM. PROTEOM. METABOLOM</b> Chairs: Alexander Archakov, Vadim Govorun, Andrei Lisitsa, Elena Ilina Session 3 “System Biology” (Moderators: Vassily Lazarev, Igor Fesenko)
18:15 – 20:15	Hall # 6		<b>PROTEINS AND PEPTIDES” «Physical-Chemical Methods in Study of Peptide and Protein Structure. ‘Structure—Function’ Relationship”</b> Chairs: Roman Efremov, Alexey Finkelstein). Session 3 (Moderators: Oxana Galzitskaya, Alexey Feofanov)
18:15 – 20:15	Hall # 7		<b>GLYCOBIOLOGY</b> Chairs: Nikolai Bovin, Tatiana Gorshkova. Session 2 (Moderators: Yulia Fedonenko, AnnA Kulminskaya)
09.00 – 17.00		<b>POSTER SESSION</b>	

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## PROGRAM-AT-A-GLANCE

OCTOBER 5<sup>th</sup>

08:00 – 10:00	Main Hall	<b>S Y M P O S I A</b>	<b>BIOCHEMISTRY AND MOLECULAR MEDICINE</b> Chairs: Boris Dzantiev, Alexey Egorov, Nataliya Klyachko. Session 7 “Biochemical Aspects of Pathology Development” (Moderators: Martin Herrmann, Roman Zinovkin)
08:00 – 10:00	Hall # 1		<b>NEW TECHNOLOGIES FOR ASSESSING THE STATES OF ADAPTATION AND DISADAPTATION OF A HUMAN</b> Chairs: Gulnar Dzhususova, Sergey Krivoshekov, Svyatoslav Soroko
08:00 – 10:00	Hall # 2		<b>PROTEINS AND PEPTIDES “Biological Functions and Mechanisms of Action of Peptides and Proteins”</b> Chairs: Alexei Belogurov, Sergey Deyev. Session 3
08:00 – 10:00	Hall # 3		<b>PHYSIOLOGY, PATHOLOGY AND BIOCHEMISTRY OF HEMOSTASIS</b> Chairs: Fazoil Attaullakhanov, Mikhail Pantelev. Session 1
08:00 – 10:00	Hall # 4		<b>BIOENGINEERING: FUNDAMENTAL BASICS AND APPLICATIONS</b> Chairs: Vladimir Popov, Alexander Yanenko. Session 2 (Moderators: Nikolai Pimenov, Nikolai Ravin)
08:00 – 10:00	Hall # 5		<b>GENOM. PROTEOM. METABOLOM</b> Chairs: Alexander Archakov, Vadim Govorun, Andrei Lisitsa, Elena Ilina Session 4 (Moderators: Mikhail Gorshkov, Lyudmila Smirnova)
08:00 – 10:00	Hall # 6		<b>COMPENSATOR RESOURCES OF THE BRAIN IN NORM AND PATHOLOGY</b> Chair: Olga Razumnikova
08:00 – 10:00	Hall # 7		
10:15 – 11:45 10:15 – 10:45 10:45 – 11:15 11:15 – 11:40	Main Hall	<b>PLENARY SESSION</b> Chairs: Alexey Belogurov, Musa Khaitov <b>FAZIOL ATTAULLAKHANIV</b> Physiology and biomechanics of mitosis <b>VLADIMIR SKREBITSKY</b> Peptidergic modulation of synaptic transmission in the hippocampus <b>TATIANA GORSHKOVA</b> Cell wall: a reliance of plant kingdom	
11.40 – 12.10		<b>Coffee Break</b>	
12:10 – 13:30 12:10 – 12:40 12:40 – 13:05 13:05 – 13:30	Main Hall	<b>PLENARY SESSION</b> Chair: Ivan Smirnov <b>DMITRY ZOROV</b> Potassium energy of mitochondria <b>DMITRY GRYADUNOV</b> Hydrogel biochips as a tool for personalized medicine in present and future <b>MUSA KHAITOV</b> Innovative strategies for creating drugs for the prevention and treatment of immuno-mediated diseases	
13:50 – 14:30		<b>Lunch Time</b>	
14.30 – 15.00	Main Hall	<i>Oleg Gzenko Keynote Lecture</i> <b>MIKHAIL KHOMENKO</b> Contribution of Oleg Gzenko to the formation of aviation and space physiology, biology and medicine Moderators: Anatoly Grigoriev, Inessa Kozlovskya	
15.00 – 15.30	Main Hall	<i>Plenary Lecture</i> <b>S. MATSKEPLISHVILI</b> Digital and computer technology in biomedicine in 2019 - myths or reality? Moderators: Irina Roshchevskaya, Olga Solovyeva	
14:30 – 15:30	Hall # 5	<b>GENOM. PROTEOM. METABOLOM</b> Chairs: Alexander Archakov, Vadim Govorun, Andrei Lisitsa, Elena Ilina RHUPO Round Table Discussion (Moderators: Andrei Lisitsa, Elena Zorina)	



# II JOINT LIFE SCIENCES FORUM

◆ VI CIS CONGRESS ON PHYSIOLOGY  
◆ VI RUSSIAN BIOCHEMICAL CONGRESS  
◆ IX RUSSIAN SYMPOSIUM “PROTEINS AND PEPTIDES”

Sochi–Dagomys, October 1–6, 2019

## PROGRAM-AT-A-GLANCE

OCTOBER 5<sup>th</sup>

15:45 – 17.45	Main Hall	<b>S Y M P O S I A</b>	<b>PROTEINS AND PEPTIDES “Chemistry and Biology of Enzymes”</b> Chairs: Olga Lavrik, Sergei Kochetkov, Ivan Smirnov. Session 2
15:45 – 17.45	Hall # 1		
15:45 – 17.45	Hall # 2		<b>ИСПОЛНИТЕЛЬНЫЕ ФУНКЦИИ И ТОРМОЗНЫЕ ПРОЦЕССЫ В ОНТОГЕНЕЗЕ</b> Chair: Elena Nikolaeva
15:45 – 17.45	Hall # 3		<b>CHEMISTRY AND BIOLOGY OF NUCLEIC ACIDS</b> Chairs: Georgy Georgiev, Olga Dontsova, Andrei Konevega, Maria Rubtsova, Piotr Sergiev. Session 5 “Translation and RNA Tools”
15:45 – 17.45	Hall # 4		<b>PROTEINS AND PEPTIDES “Bioengineering of Proteins and Peptides”</b> Chairs: Dmitry Dolgikh, Alexey Fedorov. Session 2
15:45 – 17.45	Hall # 5		<b>GENOM. PROTEOM. METABOLOM</b> Chairs: Alexander Archakov, Vadim Govorun, Andrei Lisitsa, Elena Ilina Session 5 “Proteomics and Metabolomics” (Oxana Trifonova, Vadim Yanshole)
15:45 – 17.45	Hall # 6		<b>BIOCHEMISTRY AND MOLECULAR MEDICINE</b> Chairs: Boris Dzantiev, Alexey Egorov, Nataliya Klyachko. Session 8 “Biochemical Aspects of Pathology Development and Immunology” (Moderators: Vadim Kashuro, Boris Kershengoltz)
15:45 – 17.45	Hall # 7		<b>PHYSIOLOGY, PATHOLOGY AND BIOCHEMISTRY OF HEMOSTASIS</b> Chairs: Fazoil Attaullakhanov, Mikhail Panteleev. Session 2
09:00 – 17:00			<b>POSTER SESSION</b>
18:00 – 19:00	Main Hall		<b>CLOSING CEREMONY. Handling of awards to the authors of best poster presentations and winners of Young Scientists’ Competition</b> Chairs: Alexander Gabibov, Revaz Sepiashvili