





# 7<sup>TH</sup> SAINT PETERSBURG MEDICAL INNOVATION FORUM MAY 14-16, 2024



#### 7TH SAINT PETERSBURG MEDICAL INNOVATION FORUM

#### ORGANIZERS

Ministry of Health of the Russian Federation Ministry of Science and Higher Education of the Russian Federation Almazov National Medical Research Centre Translational Medicine Cluster

#### INTERDEPARTMENTAL ORGANIZING COMMITTEE

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## The 7th Saint Petersburg Medical Innovation Forum includes Almazov Youth Medical Forum 2024.

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E. Pevneva (St. Petersburg)

E. Usynina (St. Petersburg)

#### TOPICS

- Information technology and AI in medicine
- Personalized medicine
- Microbial and antimicrobial therapy: state of the art and perspectives
- Controlling dangerous infections: biosafety and synthetic biology innovations
- Innovations in medicine: medications, novel instruments and devices
- Development and registration of innovative products in BRICS
- Improving cardiology care
- Modern technologies in cardiology and cardiac surgery
- Topical issues of experimental medicine
- Cardiac arrhythmias: from fundamentals to interventional treatment
- Robotic surgery: new trends and approaches in the treatment of patients with various diseases
- Drug therapy for cardiovascular disease
- Innovative approaches in metabolic and prescription imaging in oncology
- Challenging issues of hematologic oncology
- Genetics of polygenic diseases
- Trends in neuroscience and innovations in neurotechnology
- Public health and healthcare management
- Modern technologies for women's health obstetrics, gynecology, reproductive medicine
- Topical issues of perinatology and pediatrics
- New approaches to studying rare, understudied and unknown diseases
- Autoimmune diseases: a new challenge to humanity
- Drug development and registration: GLP regulation
- Medical education innovations
- Bringing foreign youth to Russian science and education: opportunities and prospects

• Intellectual property: technology transfer in drug discovery and AI market

The scientific programme of the 7th Saint Petersburg Medical Innovation Forum and Almazov Youth Medical Forum 2024 features lectures, plenary sessions, scientific symposia, workshops, clinical case discussions, e-posters, training sessions for practitioners.

Official languages: Russian, English.

#### VENUE

- Almazov National Medical Research Centre, 2 Akkuratova street, 11 Akkuratova street, 21 Kolomyazhsky avenue, Saint Petersburg
- Solnechny Biomedical Training and Research Centre, Solnechnoe village, 6 Srednyaya street
- Polenov Neurosurgical Institute, 12 Mayakovskogo street, Saint Petersburg

Address	Halls
Almazov National	Pavlov Hall, 3rd floor
Medical Research	Korotkov Hall, 2nd floor
Centre, 2 Akkuratova	Botkin Hall, 3rd floor
street	Lang Hall, 20th floor
	Museum Hall, 6th floor
	Library Hall, 9th floor
	Filatov Hall, Perinatal Centre, 4th floor
	Peter's Assembly Hall 2nd floor
Institute of Medical	Mendeleev Hall
Education, 21	Almazov Hall
Kolomyazhsky avenue	3rd Floor Hall
	Small Hall
	Meeting Room
	Smart Room
	Simulation Centre
School, 11 Akkuratova	Lecture room 5
street	
Solnechnoe village, 6	Solnechny Biomedical Training and Research Centre, Solnechnoe
Srednyaya street	hall
Polenov Neurosurgical	Molotkov Hal
Institute, 12	Polenov Hall
Mayakovskogo street	Babchin Hall

#### LOCATION OF HALLS

#### **Timings of Almazov Youth Medical Forum 2024:**

May 11, 8:00-18:00	May 13, 8:00–18:00	May 15, 8:00–18:00
May 12, 8:00-18:00	May 14, 8:00–18:00	May 16, 8:00-15:00

## Timings of the 7th Saint Petersburg Medical Innovation Forum:

May 14, 9:30–19:00 May 15, 9:30–19:00 May 16, 9:30–18:45

## OFFICIAL EVENTS OF THE 7TH SAINT PETERSBURG MEDICAL INNOVATION FORUM

May 14, 11:30–15:30	Meeting of the RAS Council on Personalized Medicine	2 Akkuratova street, Congress Centre, Pavlov Hall
May 15, 11:30–13:30	Plenary session Opening Ceremony of the 7th Saint Petersburg Medical Innovation Forum	21 Kolomyazhsky avenue, Almazov Hall
May 16, 13:30–15:00	Awarding ceremony for winners of competitions and poster sessions Closing ceremony	2 Akkuratova street, Congress Centre, Pavlov Hall

## SPECIAL EVENTS OF WORLD-CLASS RESEARCH CENTRE FOR PERSONALIZED MEDICINE

#### May 14, 2 Akkuratova street

Time	Hall	Event
9.30-11.00	Lang Hall	<b>Symposium</b> Post-mastectomy syndrome – recent discoveries
9.30–11.00	Online	<b>International seminar</b> <i>Current approaches to understanding pathological</i> <i>calcification</i> <i>(part 1)</i>
15.45-17.15	Lang Hall	<b>International seminar</b> Molecular genetic markers and personalized approach to the diagnosis and treatment of neuroendocrine tumors of various sites
15.45-17.15	Filatov Hall	<b>International seminar</b> <i>The latest technologies in the diagnosis and treatment of cervical diseases</i>
17.30–19.00	Botkin Hall	<b>Symposium</b> Heritability analysis of polygenic diseases in the context of national biobanks

#### May 15, 2 Akkuratova street

Time	Hall	Event			
9.30-11.00	Library Hall	<b>Symposium</b> <i>Prospective methods for treating myeloproliferative neoplasms</i>			
9.30-11.00	Filatov Hall	<b>International symposium</b> <i>The fetal and neonatal heart: implications for adult life</i>			
9.30-11.00	Botkin Hall	<b>International seminar</b> Methods for producing transgenic animals and using them in medicine (part 1)			
14.00–15.30	Botkin Hall	<b>Symposium</b> Bioinformatics technologies for studying the heritability of polygenic diseases			
14.00–15.30	Online	<b>Symposium</b> Innovative approaches in metabolic and receptor imaging in oncology			
15.45-17.15	Botkin Hall	<b>Symposium</b> COVID-19, long COVID and the autoimmune response: is there a link?			
15.45-17.15	Online	International seminarCurrent approaches to understanding pathologicalcalcification (part 2)			
17.30–19.00	Filatov Hall	International seminar Modern methods of fertility preservation for cancer patients			

#### May 16, 2 Akkuratova street

Time	Hall	Event
		International seminar
9.30-11.00	Lang Hall	Methods for producing transgenic animals and using them in
		medicine (part 2)
9.30-11.00	Museum Hall	Symposium
9.30-11.00		Adipose tissue plasticity and cardiometabolic health
9.30-11.00	Online	Symposium

Time	Hall	Event
		Molecular chaperones in the diagnosis and therapy of socially significant diseases
9.30-11.00	Botkin Hall	Round table meeting Molecular cardiology
11.15-12.45	Botkin Hall	Symposium Extracellular vesicles: huge perspectives for small objects
11.15-12.45	Online	Symposium Integrative nanotechnologies in personalized medicine

#### **EXHIBITION**

An exhibition of medical equipment and pharmaceuticals will take place daily from 9.00 to 18.00 during the Forum. The expositions will be located on the 1st floor at 2 Akkuratova street and 21 Kolomyazhsky avenue.

The Healthcare Innovation Exhibition of the Translational Medicine Cluster will be held on May 15 from 9.00 to 18.00 at 21 Kolomyazhsky avenue.

#### REGISTRATION

The event is free to attend but pre-registration is required. There is no registration fee.

All registered participants will receive name badges at the registration desk for admission to all sessions and the exhibition.

During the Forum, onsite registration will take place daily from 8:30 to 16.00:

- 7th Saint Petersburg Medical Innovation Forum: Congress Centre, 2 Akkuratova street.
- Almazov Youth Medical Forum 2024: Institute of Medical Education, 21 Kolomyazhsky avenue.

#### **Onsite Wi-Fi**

Wi-Fi is available in all the Forum areas.

Wi-Fi name: nmrc-free

## SCHEDULE

## May 14, 2024

				2 Akkura	atova street				
Time	Pavlov Hall	Korotkov Hall	Botkin Hall	Lang Hall	Museum Hall	Library Hall	Filatov Hall (Perinatal Centre)	Peter's Assembly	ONLINE
				Reg	gistration (starts at 8.30)		· /		
09.30-11.00	Satellite symposium Full course completed? The role of dual antiplatelet therapy in the second year and beyond after myocardial infarction (sponsored by AstraZeneca)	Satellite symposium Current trends in the early diagnosis of rare diseases in children (presentations sponsored by Pierre Fabre, Sanofi Russia)	Symposium Basic issues in cardiology (presentation sponsored by Generium)	Symposium Post-mastectomy syndrome – recent discoveries	International symposium Microbial and antimicrobial therapy: state of the art and prospects	08:30 Poster session Cardiology: non-coronary diseases 10:00 Poster session Surgery	Symposium Forming the professional identity of a medical student	Poster session New technologies in pediatrics, microbiology, reproductive medicine and endocrinology	International seminar Current approaches to understanding pathological calcification (part 1)
11.00-11.30					Break				
11.30-13.30	Mee	ting of the RAS Co	uncil on Personaliz	ed Medicine (part 1)		nalized medicine:	experience and pro	spects Payloy Hall	live stream
13.30-14.00		Meeting of the RAS Council on Personalized Medicine (part 1) Staff training for personalized medicine: experience and prospects, Pavlov Hall   live stream Break							
14.00-15.30		Meeting of the RAS Council on Personalized Medicine (part 2) New technologies in personalized medicine, Pavlov Hall   live stream							
15.30-15.45					Break				

				2 Akkur	atova street				
Time	Pavlov Hall	Korotkov Hall	Botkin Hall	Lang Hall	Museum Hall	Library Hall	Filatov Hall (Perinatal Centre)	Peter's Assembly	ONLINE
15.45-17.15	Meeting of the RAS Council on Personalized Medicine (part 3) Basic research as a basis for personalized approaches in medicine	Satellite symposium The burden of inflammatory bowel disease as a public health issue (sponsored by Johnson & Johnson)	Satellite symposium Modern aspects of multidisciplinar y approach in diagnosis and therapy of progressive Duchenne muscular dystrophy (sponsored by Roche Moscow)	International seminar Molecular genetic markers and personalized approach to the diagnosis and treatment of neuroendocrine tumors of various sites	Symposium Using microorganisms to fight tumors	Symposium Trends in neuroscience and innovations in neurosurgery (part 1)	International seminar The latest technologies in the diagnosis and treatment of cervical diseases	Poster session Basic research in cardiology, oncology and neurology	Workshop Endoscopic interventions in patients with advanced pancreatobiliary cancer
17.15-17.30			•		Break				
17.30-19.00	Symposium Laboratory diagnostics: big data analysis	Symposium GLP rules in drug development and registration	Symposium Heritability analysis of polygenic diseases in the context of national biobanks	Symposium Fundamental aspects of rehabilitation: from clinical questions to solutions	Symposium Changes in microbiota in various diseases and ways of correction	Symposium Basic research in neurosurgery (part 2)	Symposium Infectious perinatology	Session Foreign universities' innovations in education and science	International experience in medical and biomedical training
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Sessions marked **Que** will be live-streamed

#### MAY 14, 2024

#### 11:30-13:30 Pavlov hall, 2 Akkuratova street || live stream MEETING OF THE RAS COUNCIL ON PERSONALIZED MEDICINE (part 1) Staff training for personalized medicine: experience and prospects

Chairs:	Konradi A. (St. Petersburg) (St. Petersburg), Sychev D. (Moscow)
11:30-11:45	Opening remarks
11:45-12:00	Sychev D., Mirzaev K.B. (Moscow)
	Continuing professional education as a tool for introducing pharmacogenetics and personalized therapy into practice
12:00-12:15	Shikh E., Anikin G. (Moscow)
	Specialist's and master's educational programs and training modules on
	personalized medicine
12:15-12:30	Prirodova O., Sychev D. (Moscow)
	Personalized medicine for practitioners: continuing education opportunities
12:30-12:45	Parmon E. (St. Petersburg)
	Experience in the implementation of student training in personalized medicine
12:45-13:30	Discussion of the framework recommendations of the RAS Council on
	Personalized Medicine for the inclusion of personalized medicine modules in
	the training of students, residents, doctors and health care executives

#### 14:00-15:30 Pavlov hall, 2 Akkuratova street || live stream MEETING OF THE RAS COUNCIL ON PERSONALIZED MEDICINE (part 2) New technologies in personalized medicine

Chairs:	Golukhova E., Drapkina O., Rumyantsev A. (Moscow)
14:00-14:15	Golukhova E., Garmanov S., Darvish N., Bakuleva N., Salohedinova R. (Moscow)
	Personalized surgical approaches for the repair of combined lesions of the brachiocephalic arteries and aortic arch with a customized prefabricated
	multibranch graft based on the patient's anatomy
14:15-14:30	Drapkina O. (Moscow)
	Current potential of genetic technologies in personalized prevention
14:30-14:45	Rumyantsev A., Scherbina A., Kuzmenko N., Rodina Yu. (Moscow) Genetic immune defects as a basis for personalized autoimmune and inflammatory therapies
14:45-15:00	<b>Popov S., Boschenko A., Ryabov V. (Tomsk)</b> Critical cardiology technologies at a federal research centre: where is personalization?
15:00-15:15	Kudlai D. (Moscow)
	First autologous cell platforms for Russian healthcare
15:15-15:30	Discussion

15:45-17:15

Pavlov hall, 2 Akkuratova street || live stream

#### MEETING OF THE RAS COUNCIL ON PERSONALIZED MEDICINE (part 3) Basic research as a basis for personalized approaches in medicine

Chairs:	Lukyanov S. (Moscow), Shlyakhto E. (St. Petersburg)
15:45-16:00	Kogan I., Bespalova O., Glotov A. (St. Petersburg) Biobanking as a promising tool for new technologies in reproductive medicine
16:00-16:15	Klimenko A. (Moscow)
	Frontiers in the study of autoimmune and autoinflammatory diseases 2023: personalization trend
16:15-16:30	Filipenko M. (Novosibirsk)
	Digital measurement of biomarkers as a logical step in developing and advancing diagnostic systems for personalized medicine
16:30-16:45	Polonikov A. (Kursk)
	Cataloguing and potential use of genetic markers for multifactorial disease risk assessment for personalized medicine
16:45-16:55	Tikunova N. (Novosibirsk)
	Experience of personalized phage therapy in the treatment of wound infections
16:55-17:05	Richter V. (Novosibirsk) Anticancer drug based on vaccinia virus
17:05-17:15	Shlyakhto E. (St. Petersburg)
	Closing remarks

#### 17:30-19:00

Pavlov hall, 2 Akkuratova street || live stream

#### Symposium

#### LABORATORY DIAGNOSTICS: BIG DATA ANALYSIS

Chairs:	Vavilova T., Sirotkina O., Ivanov A. (St. Petersburg), YANG Li-Ming (Harbin, China)
17.30-17.40	Sirotking O. (St. Petersburg)

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	Synthetic biology as a modern trend in harmonizing basic and applied
	biomedical tasks using big data
17:40-17:50	Osipov N., Vlasov V. (St. Petersburg)
	Potential of mathematical modelling in laboratory diagnostics
17:50-18:00	Vavilova T. (St. Petersburg)
	Laboratory markers of coagulation activation and risk scores
18:00-18:10	Startseva O., Zybina N. (St. Petersburg)
	Monitoring of low-molecular-weight heparin therapy using various
	laboratory methods
18:10-18:20	YANG Li-Ming (Harbin, China)
	The mechanism of berberine inhibited SASP-related inflammation in foam
	cells
18:20-18:30	Skibo I. (St. Petersburg)
	Comparing specific IgE results obtained by different technologies

- 18:30-18:40
   18:40-18:50
   Comparing specific rgE results obtained by different technologies
   Modern laboratory diagnostic testing in professional and amateur sports
   Krobinets I. (St. Petersburg)
- Innovative trends in immunohematology
- 18:50-19:00 Discussion

17:30-19:00

Symposium

#### GLP RULES IN DRUG DEVELOPMENT AND REGISTRATION

Chairs:	Galagudza M., Vakhitova Yu., Li Xiao-Bo (Harbin, China)
17:30-17:45	Syubaev R. (Moscow)
	Preclinical studies of drugs:
	EAEU requirements and current changes in national legislation
17:45-18:00	Popov N., Baranov M. (Tver)
	Mass spectrometry and high-performance liquid chromatography methods
	for preclinical study of biotransformation of leading compounds from the
	sydnonimine group
18:00-18:15	Li Xiao-Bo (Harbin, China)
	Targeting ribosome biogenesis is a novel strategy to treat colorectal cancer
18:15-18:30	Semivelichenko E., Grishina A. (St. Petersburg)
	The system of good laboratory practice in a preclinical testing centre
18:30-18:45	Shustov E. (St. Petersburg)
	Modern approaches to pharmacological neuroprotection
18:45-19:00	Discussion

09:30-11:00

#### Museum hall, 2 Akkuratova street || live stream

## Symposium

#### MICROBIAL AND ANTIMICROBIAL THERAPY: STATE OF THE ART AND PROSPECTS

Chairs:	Shevchenko S. (St. Petersburg), Ling Hong (Harbin, China)
09:30-09:45	Goncharov A. (St. Petersburg), Lavrinenko A. (Karaganda, Kazakhstan)
	Bioprospecting of bacteriophages in the XXI century
09:45-10:00	Pchelin I., Azarov D. (St. Petersburg)
	Meta-analysis of spectral width of the phage lytic activity
10:00-10:15	Ling Hong (Harbin, China)
	Declining prevalence of multidrug-resistant tuberculosis in Heilongjiang
	Province, China: 2013–2021 trend and after COVID-19 onset
10:15-10:25	Mayorova I., Desheva Yu. (St. Petersburg)
	Associated vaccine based on recombinant A/H1N1pdm09 influenza virus
	expressing the S. pneumoniae fragment
10:25-10:35	Desheva Yu. (St. Petersburg)
	Prototypes of broadly protective neuraminidase-based influenza vaccines
10:35-10:45	Shamova O., Zharkova M., Sukhareva M. (St Petersburg)
	Antimicrobials peptides effective against antibiotic-resistant bacteria
10:45-10:55	Spiridonova A., Afinogenova A. (St. Petersburg)
	Synergism of antimicrobial agents: prospects of clinical application
10:55-11:00	Discussion

#### International seminar CURRENT APPROACHES TO UNDERSTANDING PATHOLOGICAL CALCIFICATION (PART 1)

Chairs:	Malashicheva A. (St. Petersburg), Kang Xu (Wuhan, China)
09:30-09:45	Kang Xu (Wuhan, China)
	Study of andrographolide to alleviate aortic valve calcification
09:45-10:00	Kutikhin A. (Kemerovo)
	Histological and electron microscopic approaches to three-dimensional
	imaging of pathological calcification of circulatory system elements
10:00-10:15	Tanyansky D. (St. Petersburg)
	Low-density lipoprotein transport across endothelial cells: process
	regulation and possible activation mechanisms in atherogenesis
10:15-10:30	Dokshin P. (St. Petersburg)
	Gender-specific features of the transcriptomic landscape in aortic valve
	interstitial cells during pathological calcification
10:30-10:50	Malashicheva A. (St. Petersburg)
	Critical role of Notch signaling pathway in osteogenic differentiation as a
	way to control pathological calcification and osteogenesis
10:50-11:00	Discussion

## SCHEDULE

## May 15, 2024

	2 Akkuratova street								
Time	Pavlov Hall	Korotkov Hall	Botkin Hall	Lang Hall	Museum Hall	Library Hall	Filatov Hall	Peter's Assembly	ONLINE
	1	1	1		registration starts at 8-30)	1	Γ	1	Π
9.30-11.00	Panel discussion Prospects of generative artificial intelligence in healthcare	Symposium Preclinical trials in the Russian Federation: opportunities and prospects	International seminar Methods for producing transgenic animals and using them in medicine (part 1)	2nd All- Russian Competition in Neurology	Satellite symposium New opportunities in thrombosis prevention and cardiovascular disease treatment (sponsored by Organica)	Symposium Prospective methods for treating myeloproliferative neoplasms (presentations sponsored by Novartis Pharma)	International symposium The fetal and neonatal heart: implications for adult life	Symposium Innovative technologies in the teaching of preclinical disciplines in medical universities (part 1)	Satellite symposium Forxiga for chronic heart failure: innovations and new therapeutic approaches in 2024 (sponsored by
					-				AstraZeneca)
11.00-11.30		1	1	1	Break	1	1	1	1
11.30-13.30 13.30 -		PLENARY SESSION	– OPENING CE		THE 7TH SAINT PE yazhsky avenue, Almaz Break		ICAL INNOVATI	ON FORUM	
14.00		1	•			1	r	1	T
14.00-15.30	International session Innovations and new development vectors for the export of medical services to improve health, longevity and quality of life (presentation sponsored by Peterburgskie apteki)	Satellite symposium Radiation and radionuclide imaging in the perioperative management and diagnosis of complications in patients with arrhythmias (sponsored by GE Healthcare)	Symposium Bioinformatics technologies for studying the heritability of polygenic diseases	2nd All- Russian Competition in Neurology with international participation	Round table meeting <i>Tools for attracting</i> <i>foreign youth to</i> <i>Russian science and</i> <i>education</i>	Symposium Endovascular aortic surgery: exploring advanced technologies and looking beyond	Symposium Preconceptional genomic technologies: application in practice and perspectives	Symposium Innovative technologies in the teaching of preclinical disciplines in medical universities (part 2)	WCRC symposium Innovative approaches in metabolic and receptor imaging in oncology
15.30-15.45		•	•		Break		•		•

	2 Akkuratova street								
Time	Pavlov Hall	Korotkov Hall	Botkin Hall	Lang Hall	Museum Hall	Library Hall	Filatov Hall	Peter's Assembly	ONLINE
15.45 - 17.15	Workshop Medical and health tourism: organizing culturally sensitive interactions	Symposium Progress of neuromodulation in cardiology (presentation sponsored by Cardiomedics)	Symposium COVID-19, long COVID and the autoimmune response: is there a link?	2nd All- Russian Competition in Neurology with international participation	Training session Innovative technologies: from idea to implementation	Round table meeting <i>Clinical</i> <i>application of</i> <i>innovative</i> <i>technology for the</i> <i>synthesis of nitric</i> <i>oxide from</i> <i>atmospheric air</i>	Symposium Modern technologies in the obstetrical practice	Symposium Innovations in medical education	International seminar <i>Current</i> approaches to understanding pathological calcificati on (part 2)
17.15 - 17.30					Break	·			•
17.30 - 19.00	Symposium Robotic surgery: new trends and approaches in the treatment of patients with various diseases	Training session Problems and challenges of modern arrhythmology	Symposium Topical issues of cardio- oncology	Round table meeting Vocational guidance of schoolchildr en and pre- university training of medical students	Round table meeting Intellectual property: technology transfer in the pharmaceutical and AI markets	Symposium Topical issues of modern therapy of acute leukemia (presentations sponsored by Pharmstandard, Alpharma)	International symposium Modern methods of fertility preservation in cancer patients	Round table meeting World outlook and methodologica l aspects of teaching humanities in a medical University	Joint symposium of Almazov Centre and Kazakh Russian Medical University (KRMU)

Sessions marked will be live-streamed

#### MAY 15, 2024

11:30-13:30

Almazov hall, 21 Kolomyazhsky avenue || live stream

#### PLENARY SESSION OPENING CEREMONY OF THE 7TH SAINT PETERSBURG MEDICAL INNOVATION FORUM

Chairs:	Demidov A., Kryukov E., Maksimov A., Rudskoy A., Shlyakhto E., Ergashev O. (St. Petersburg)
11:30-12:10	Welcome addresses
12:10-12:30	Shlyakhto E. (St. Petersburg) Madiaina of the future – madiaina of knowledge, data and tashnalagias
12:30-12:50	Medicine of the future – medicine of knowledge, data and technologies Lukyanov S. (Moscow)
	Sectoral suppression of T-cell immunity – a new strategy for treatment of autoimmune diseases
12:50-13:10	Sychev D. (Moscow)
13:10-13:30	Pharmacogenetics: a universal approach to personalization of drug use Li Yue (Harbin, China) History of development and current issues in cardio-oncology

#### 14:00-15:30

Pavlov hall, 2 Akkuratova street|| live stream

#### INTERNATIONAL SESSION INNOVATIONS AND NEW DEVELOPMENT VECTORS FOR THE EXPORT OF MEDICAL SERVICES TO IMPROVE HEALTH, LONGEVITY AND QUALITY OF LIFE

- Chairs: Tereshin A., Kuzenskaya Y. (St. Petersburg)
- 14:00-14:05 **Opening remarks**
- 14:05-14:20Dr. Viswanathan Mohan (India)Precision diabetes care becoming a reality
- 14:20-14:30 Belova S. (St. Petersburg)
- 14:30-14:40 St. Petersburg as a centre for development of medical and health tourism **Grigorieva N. (St. Petersburg)** 
  - Intellectual potential of society and innovations in medicine: ways of development as a system of strategic knowledge and skills
- 14:40-14:55 **Dorosh Zh. (Moscow)** Application of clinical guidelines in outpatient and inpatient settings: automation possibilities
- 14:55-15:10Antonyuk O. (St. Petersburg)<br/>Relevance of pharmaceutical compounding and its role in modern drug<br/>supply (sponsored by Peterburgskie apteki)15:10:15:20With Definition of the pharmaceutical compounding and its role in modern drug<br/>supply (sponsored by Peterburgskie apteki)
- 15:10-15:20 Vitkovskaya E. (St. Petersburg) Cardiological Saint Petersburg
- 15:20-15:30 **Komlichenko E. (St. Petersburg)**
- Prospects for the development of the oncology service at Almazov Centre

#### INTERNATIONAL SESSION - EXPORT OF MEDICAL SERVICES Workshop

#### MEDICAL AND HEALTH TOURISM: ORGANIZING CULTURALLY SENSITIVE INTERACTIONS

Chairs:	Tereshin A., Kuzenskaya Yu., Belova S. (St. Petersburg)
15:45-15:55	Guzalov P. (St. Petersburg)
	Health resort facilities of St. Petersburg
15:55-16:05	Abramov K. (St. Petersburg)
	Possibilities of high-tech neurosurgical medical care at Almazov Centre
16:05-16:15	Morozova M. (St. Petersburg)
	Services and prospects for sustainable international inbound tourist flow to
	St. Petersburg in the context of medical tourism development.
16:15-16:25	Voschinchuk A. (Belarus)
	Characteristics of health resort personnel training in the Republic of Belarus
16:25-16:35	Tadzhieva U. (Uzbekistan)
	Priority areas of cooperation between Russia and Uzbekistan in the field of
	medical and health tourism
16:35-16:45	Hasanov E. (Azerbaijan)
	Health resort facilities of Azerbaijan
16:45-16:55	Asrorova E. (Tajikistan)
	Health resort facilities of Tajikistan
16:55-17:05	Rajiv Taneja (India)
	Development of medical tourism between Russia and India
17:05-17:15	Mert Akkok (Turkey)
	Public-private partnerships in medical tourism

#### 14:00-15:30

Library hall, 2 Akkuratova street / live stream

#### Symposium ENDOVASCULAR AORTIC SURGERY: EXPLORING ADVANCED TECHNOLOGIES AND LOOKING BEYOND

Chairs:	Chang Shu (Beijing, China), Imaev T. (Moscow), Chernyavsky M. (St. Petersburg)
14:00-14:10	Chang Shu (Beijing, China)
	Endovascular procedures in patients with aortic arch pathology
14:10-14:20	Khafizov T. (Ufa)
	Fenestrated stent grafting for juxtarenal aneurysms
14:20-14:30	Imaev T. (Moscow)
	Endovascular treatment of aortic arch disease: a single centre experience
14:30-14:40	Chernyavsky M. (St. Petersburg)
	Treatment of complex aortic arch and thoracoabdominal aortic aneurysms:
	new solutions in the era of endovascular technology
14:40-14:50	Polyakov R. (Moscow)
	Branched endovascular technique for the treatment of thoracoabdominal
	aortic aneurysms
14:50-15:00	Krestyaninov O. (Novosibirsk)
	Robot-assisted procedures for aorto-iliac segment
15:00-15:30	Live surgery broadcast from the hybrid OR of Almazov Centre:
	Endovascular repair of the aortic arch with intraoperative stent-graft
	fenestration

#### International seminar CURRENT APPROACHES TO UNDERSTANDING PATHOLOGICAL CALCIFICATION (PART 2)

Chair:	Malashicheva A. (St. Petersburg)
15:45-15:55	<b>Perepletchikova D. (St. Petersburg)</b> Cellular and molecular mechanisms of endothelial cell effects on osteogenic differentiation
15:55-16:05	<b>Basovich L. (St. Petersburg)</b> Effect of suppression of Notch signaling pathway components in endothelial cells on osteogenic differentiation of MSCs
16:05-16:15	<b>Kachanova O. (St. Petersburg)</b> <i>Ex vivo</i> model of aortic valve calcification using human valves
16:15-16:25	<b>Nyrov V. (St. Petersburg)</b> Effect of regulation of estrogen-related receptor alpha expression on osteogenic differentiation in cell cultures
16:25-16:35	Smirnova D. (St. Petersburg) Role of KLF2/KLF4 mechanotransduction factors in maintaining functional properties of endothelial cells
16:35-16:45	<b>Boyarskaya N. (St. Petersburg)</b> Pinostrobin – a potential inhibitor of aortic valve calcification
16:45-16:55	<b>Gromova E. (St. Petersburg)</b> Mechanisms of Runx2 transcription factor regulation at early stages of osteogenic cell differentiation
16:55-17:05	Panshin D. (St. Petersburg) Differential expression of profibrotic markers in response to variation in RUNX2 and NOTCH activity in human cells
17:05-17:15	Discussion

## SCHEDULE

## May 16, 2024

	2 Akkuratova street										
Time	Pavlov Hall	Korotkov Hall	Botkin Hall	Lang Hall	Museum Hall	Library Hall	Filatov Hall	Peter's Assembly	ONLINE		
9.30-11.00	Final stage of the research paper competition	6 <sup>th</sup> All- Russian Competition in Cardiology with international participation	Round table meeting <i>Molecular</i> <i>cardiology</i>	International seminar Methods for producing transgenic animals and using them in medicine (part 2)	Symposium Adipose tissue plasticity and cardiometabolic health	Training session CT and MRI of the heart and great vessels	Symposium Gynecology at the intersection of specialties	Round table meeting Interactions between large clinics, universities and organizations in healthcare (part 2)	Symposium Integrative nanotechnolog es in personalized medicine		
11.00-11.15					Break						
11.15-12.45	Final stage of the research paper competition	6 <sup>th</sup> All- Russian Competition in Cardiology with international participation	Symposium Extracellular vesicles: huge perspectives for small objects	Symposium Opportunities of Russian science and industry, current import substitution projects in cardiovascular and endovascular surgery	Symposium Autoimmune diseases: from theory to practice	Training session Fundamentals of CT and MRI safety in cardiac imaging	Symposium Intrauterine surgery	Strategy session Interactions between large clinics, universities and organizations in healthcare (part 3)	Symposium Molecular chaperones in the diagnosis and therapy of socially significant diseases		
12.45-13.30		Break TOUR OF THE CENTRE FACILITIES FOR PARTICIPANTS OF ALMAZOV YOUTH MEDICAL FORUM									
13.30-15.00	AWARDING CEREMONY FOR WINNERS OF COMPETITIONS AND POSTER SESSIONS, Congress Centre, Pavlov Hall										
15.00-15.30	CLOSING CEREMONY										

Sessions marked will be live-streamed

## MAY 16, 2024

09:30-11:00

Botkin hall, 2 Akkuratova street || live stream

#### Round table meeting MOLECULAR CARDIOLOGY

<b>Chairs:</b> 09:30-09:45	Kostareva A., Yakovlev A. (St. Petersburg) Kostareva A. (St. Petersburg)
09:45-10:00	New genetic determinants of congenital myocardial pathology Malashicheva A. (St. Petersburg) New data of aortic valve calcification
10:00-10:15	<b>Dmitrieva R. (St. Petersburg)</b> RNA-sequencing approaches in the mechanisms of metabolic
10:15-10:30	reprogramming of myoblasts <b>Kalinina N. (St. Petersburg)</b> Immunopathogenesis of necrotizing enterocolitis in children with congenital
10:30-11:00	heart defects Discussion
11:15-12:45	Botkin hall, 2 Akkuratova street    live stream
EXTRACELI	Symposium LULAR VESICLES: HUGE PERSPECTIVES FOR SMALL OBJECTS
Chairs:	Kostareva A., Golovkin A. (St. Petersburg), Wenjing Sun (Harbin,
11:15-11:25	China) Golovkin A. (St. Petersburg) Methods for obtaining extracellular vesicles. Opportunities and prospects
11:25-11:35	for highly specific sorting Yakovlev A. (Moscow) Increased levels of small extracellular vesicles in the blood serum of
11:35-11:55	patients with depression, epilepsy, and epilepsy with depression Wenjing Sun (Harbin, China) The mechanism of TGF- $\beta$ mediated cholangiocyte paracrine in biliary
11:55-12:05	fibrosis of biliary atresia <b>Yunusova N. (Tomsk)</b> Concentration, composition and expression phenotype of circulating adipocyte-derived vesicles in patients with colon polyps and colorectal
12:05 -12:15	cancer Basalova N. (Moscow) The role of microRNAs, transported by mesenchyme stromal cell-derived extracellular vesicles, in the regulation of fibrosis process
12:15-12:25	Mikhailova V., Sokolov D., Selkov S. (St. Petersburg) Microvesicles as subjects of intercellular communication in reproductive
12:25-12:30	biology <b>Miroshnikova V. (St. Petersburg)</b> Extracellular vesicles of adipose tissue: the role in the development of concomitant pathologies in obesity
12:30-12:35	Petrova T. (St. Petersburg) Peculiarities of microRNA transport performed by extracellular vesicles of blood plasma
12:35-12:45	Sambur D. (St. Petersburg) Extracellular vesicles secreted by THP-1 cells as regulators of the immune response during spinal cord injury in <i>Danio rerio</i>

#### Symposium AUTOIMMUNE DISEASES: FROM THEORY TO PRACTICE

Chairs:	Maslyansky A. (St. Petersburg), Starshinova A. (St. Petersburg), Ses T. (St. Petersburg), Zhang Fengmin (Harbin, China)
11:15-11:25	Vasilyeva E., Vavilova T. (St. Petersburg) Multidisciplinary palette of autoimmune diseases in a multidisciplinary hospital
11:25-11:35	Lapin S. (St. Petersburg)
	Serological methods for autoimmune diseases examination: Problems and solutions
11:35-11:45	Zhang Feng-Min (Harbin, China)
	Photo-medical technology benefit for the treatment and prevention of autoimmune and infectious disease
11:45-11:55	Maslyansky A. (St. Petersburg)
	Idiopathic recurrent pericarditis as an example of an autoinflammatory IL-1 driven disease: New treatment opportunity
11:55-12:05	Ses T. (St. Petersburg)
	Sarcoidosis – unresolved issues of pathogenesis
12:05-12:15	Starshinova A. (St. Petersburg)
	ASIA syndrome and sarcoidosis: Is there a relationship?
12:15-12:25	Savchenko A. (Krasnoyarsk)
	The role of regulatory T lymphocytes in the immunopathogenesis of Graves' disease
12:25-12:35	Li Chao (Harbin, China)
	Construction of 4-1BB nanoantibody targeted probe and its application in
10.25 10.45	early diagnosis of rheumatoid arthritis
12:35-12:45	<b>Novosad S. (Moscow)</b> Immune checkpoint inhibitors and autoimmunity: features of the development of adverse endocrine events

09:30-11:00

Online hall || live stream

## Symposium

### INTEGRATIVE NANOTECHNOLOGIES IN PERSONALIZED MEDICINE

Chairs: Shevtsov M. (St. Petersburg), Sonawane Avinash (Indore, India), Wenfeng Jia (Chengdu, China)

09:30-09:45 Sakhabeev R. (St. Petersburg)

 A new class of biocompatible preparations that can selectively sorb viruses and biological objects on their surface
 09:45-10:00 Sonawane Avinash (Indore, India)

 Development of novel M-ASPAR for the treatment of primary and relapse acute lymphatic leukemia
 10:00-10:15 Shirish Hari Sonawane (Warangal, India)

 Process intensification using ultrasound for the synthesis of polymer spheres and nanoemulsion for delivery systems
 10:15-10:30 Huile Gao (Chengdu, China) A Brain targeted drug delivery for the

treatment of Alzheimer's disease

10:30-10:40	Wenfeng Jia (Chengdu, China)
	Dual-responsive shape-transformable nanoparticles combined with
	photodynamic therapy and immunotherapy for breast cancer and lung
	metastasis.
10:40-10:50	Skorik Yu. (St. Petersburg)
	Nanotechnologies in the development of polymeric antibiotic delivery systems (polymyxins as an example)
10:50-11:00	Zimina T. (St. Petersburg)
	Hybrid microfluidic systems with integrated multiple sensors for real-time monitoring of life tissues

11:15-12:45

Online hall || live stream

Symposium MOLECULAR CHAPERONES IN THE DIAGNOSIS AND THERAPY OF SOCIALLY SIGNIFICANT DISEASES (PART 2)

Chairs	Chairs: Shevtsov M. (St. Petersburg), Shalija Singh (Delhi, India)
11:15-11:30	Shevtsov M. (St. Petersburg)
	Membrane-associated heat shock protein Hsp70 as a target for tumor
	disease theranostics
11:30-11:45	Shalija Singh (Delhi, India)
	Targeting PfProhibitin 2 - Hu-Hsp70A1A complex during Plasmodium
	falciparum invasion of erythrocytes as a novel approach towards vaccine
	candidacy
11:45-12:00	Ankita Behl (Delhi, India)
	Discovery of a potential transmission blocking anti-malarial 'LI71'
	targeting 'PfCoSP' that facilitates parasite adaptation upon cold stress in
	mosquito host
12:00-12:10	Kokoreva N. (St. Petersburg)
	The immune component effect of the microenvironment on tumor cell
	proteostasis during recurrence
12:10-12:20	Vladimirova S. (St. Petersburg)
	Heat shock factor inhibitor 1 as a component of combined antitumor
	therapy: Mechanisms of action
12:20-12:30	Bobkov D. (St. Petersburg)
	Chaperones in tumor cell migration and invasion
12:30-12:40	Likhomanova R. (St. Petersburg)
	Involvement of membrane-associated protein Hsp70 in tumor cell invasion
	and migration
12:40-12:45	Discussion

#### MAY 14, 2024 – POSTER SESSION

#### PETER'S ASSEMBLY HALL

09:30-11:00

Peter's Assembly hall, 2 Akkuratova street || live stream

#### **POSTER SESSION**

#### NEW TECHNOLOGIES IN PEDIATRICS, MICROBIOLOGY, REPRODUCTIVE MEDICINE AND ENDOCRINOLOGY

**Chairs:** Suvorov A., Vasichkina E., Karonova T. (St. Petersburg), Zhang Fengmin (Harbin, China) 09:30-09:35 Komarova D., Samusenkova D., Oskolkova E., Lebedeva E., Dengina N., Odintsova G. (St. Petersburg) Physical activity and sport in patients with epilepsy: A single-centre uncontrolled retrospective cohort study Todorov S., Kazmin A., Hovsepyan A., Todorov S., Spesivtseva K. 09:35-09:40 (Rostov-on-Don) Pathomorphological features of pulmonary vascular lesions in COVID-19 pneumonia Kulpina A., Vasichkina E. (St. Petersburg) 09:40-09:45 Heart damage in children on the background and after COVID-19: peculiarities of course and diagnostics Pashuk S., Gusina A. (Minsk, Belarus) 09:45-09:50 Mutations in fibroblast growth factor receptor genes in systemic skeletal dysplasias and syndromal forms of craniosynostosis in patients from **Belarus** Deinega V., Govorov I., Pavlov V., Komlichenko E., Ulrich E., Fedorov 09:50-09:55 S., Savinov P., Zavyalov S. (St. Petersburg), Kesic V. (Belgrade, Serbia) Artificial intelligence based neural network algorithm in the diagnosis of cervical pathology Rykov M. (Moscow), Dolgopolov I. (Tver) 10.00-10.05 Immunotherapy of malignant glial tumors of the CNS in children 10:05-10:10 Timkina N., Ustyuzhanina A., Simanenkova A. (St. Petersburg) Bone metabolism in patients with type 1 diabetes mellitus and diabetic peripheral polyneuropathy Rykov M. (Moscow), Dolgopolov I. (Tver) 10:10-10:15 The influence of patient routing on the diagnosis of acute leukemia in children 10:15-10:25 Amosova N. (St. Petersburg) Peripheral nervous system damage associated with coronavirus infection 10:25-10:30 Prokudina E., Senokosova E., Antonova L., Kochergin N. (Kemerovo) Biopolymer vascular patch - preclinical testing in a large animal model MENG Qing-Tai (Harbin, China) 10:30-10:35 The gut-joint axis mediates the TNF-induced RA process and PBMT therapeutic effects through the metabolites of gut microbiota Yue Luxiao (Harbin, China) 10:35-10:40 Crocin alleviates vascular endothelial senescence induced by diabetes through regulating mitochondrial homeostasis at YAP1/FOXO1/GPX1 axis Morozova A., Suvorov A. (St. Petersburg) 10.45 - 10.50Antitumour properties of group A streptococcal superantigens Akino A., Mikhailova A., Golovkin A. (St. Petersburg), Karonova T. 10:50-10:55

#### (St. Petersburg)

Dynamics of regulatory T cells as a marker of immune rehabilitation in patients after acute coronavirus infection

10:55-11:00Akhmetova A., Filippov A. (St. Petersburg)<br/>Characteristics of glucose level in different sex and age groups11:00:11:05Value B. Gittin B. Gi

11:00-11:05 Vasilieva L., Fedotov P., Sitnikova M., Korneva L., Simonenko M. (St. Petersburg)
 Hospital-acquired infections in the early posttransplantation period: risk

Hospital-acquired infections in the early posttransplantation period: risk factors