		PROGRAM GRID VII TROITSK CONFEREN	CE				
	(TCMP-7),						
	Monday, 19 October 2020						
09:00-10:00	REGISTRATION OF PARTICIPANTS						
Hall	Hall 1						
10:00-11:00	Upening of the Conterence. Greetings from the guests of honor to the participants						
13:30-13:50		Virtual exhibition	opening				
13:50-14:30		Break					
14:30-16:30		Plenary session (	continued)				
16:50-18:50		Plenary session (	continued)				
18:50-19:00		Break					
19:00		Memorial events to Viktor Bagrata	shvili and Oleg Kompanets				
08:00-09:00		ruesday, 20 October 2					
08:00-09:00	Hall 4	Hall 2		3ag 4			
09:00-11:00	Biomedical photonics	New biomedical methods, devices and materials	Regenerative technologies, tissue engineering	Sun 4 Symposium "Advanced MRI Methods for Precision Medicine"			
Session Chairs:	Vyacheslav Gordienko, Valery Tuchin, Alexander Shkurinov	Sergey Gonchukov, Vladimir Minaev	Valerian Kagan, Anastasia Efimenko, Petr Timashev	Pirogov Yu.A., Pavlovskaya G.E.			
11:00-11:15		Break					
Hall		Hall 1	cion				
11:15-12:15		Plenary ses Break	sion				
Hall	Hall 1	Hall 2	Hall 3	Hall 4			
13:00-15:15	Biomedical photonics	New biomedical methods, devices and materials	Regenerative technologies, tissue engineering	Symposium "Advanced MRI Methods for Precision Medicine"			
Session Chairs:	Vyacheslav Gordienko, Valery Tuchin, Alexander Shkurinov	Sergey Gonchukov, Vladimir Minaev	Valerian Kagan, Anastasia Efimenko, Petr Timashev	Makurenkov A.M., Polshakov V.I.			
15:15-15:30 Hall	Break Break Break						
15:30-16:30	Plenary session 2						
16:30-16:45	Break						
Hall	Hall 1	Hall 2	Hall 3	Hall 4			
16:45-18:30	Biomedical photonics	New biomedical methods, devices and materials	Regenerative technologies, tissue engineering	Symposium "Advanced MRI Methods for Precision Medicine"			
Session Chairs:	Vyacheslav Gordienko, Valery Tuchin, Alexander Shkurinov	Sergey Gonchukov, Vladimir Minaev	Valerian Kagan, Anastasia Efimenko, Petr Timashev	Makurenkov A.M., Polshakov V.I.			
18:30-18:45		Break	1				
18:45-19:30	Wednesday, 21 October 2020						
08:00-09:00	REGISTRATION OF PARTICIPANTS						
Hall	Hall 1	Hall 2	Hall 3	Hall 4			
09:00-11:00	Nanotechnology for medicine	Nuclear and radiation diagnostics and therapy	Regenerative technologies, tissue engineering				
Session Chairs:	Boris Chichkov, Andrey Naumov	Sergey Akulinichev, Alexander Chernyaev	Valerian Kagan, Anastasia Efimenko, Petr Timashev				
11:00-11:15		Break					
Hall 11:15-12:15		Hall 1 Plenary sess	ion 1				
12:15-13:00		Break					
Hall	Hall 1	Hall 2	Hall 3	Hall 4			
13:00-15:15	Nanotechnology for medicine	Nuclear and radiation diagnostics and therapy	New biomedical methods, devices and materials				
Session Chairs:	Boris Chichkov, Andrey Naumov	Sergey Akulinichev, Alexander Chernyaev	Sergey Gonchukov, Vladimir Minaev				
Hall		Hall 1					
15:30-16:30		Plenary sess	ion 2				
16:30-16:45		Break					
Hall 16:45-18:45	Hall 1	Hall 2	Hall 3 Biomedical photonics	Hall 4			
Session Chaire	Boris Chichkov, Andrey Naumov	Sergev Akulinichev, Alexander Chernysev	Vyacheslav Gordienko, Valery Tuchin, Alexander				
18-45-40-00		Brock	Shkurinov				
10:40-19:00		Closing of the conference. Win	ner's reward ceremony				
10.00	Closing of the conterence. Winner's reward ceremony.						

	PROGRAM VII TROITSK CONFERENCE ON MEDICAL PHYSICS (TCMP-7),
	19-21 October 2020, Troitsk, Moscow, online
	MONDAY, 19 OCTOBER 2020
	Hall 1
09:00-10:00	REGISTRATION OF PARTICIPANTS
10:00-11:00	Opening of the Conference. Greetings from the guests of honor to the participants
11:00–11:40	A perspective on an emerging paradigm in science <b>Prof. Li Jinghai,</b> National Natural Science Foundation of China, China
11:40–12:20	COVID-19 Netyosov S.V.
12:20-13:00	Biophotonics in neurosurgery <b>A.A. Potapov</b> , Scientific Research Institute of Neurosurgery named after N.N. Burdenko, Moscow
13:00-13:30	About new MRI methods for precision medicine Peter Maurice, Richard Boutel, Ian Hall
13:30-13:50	Virtual exhibition opening
13:50–14:30	Break
13:50–14:30 14:30–15:10	Break Biomedical products in regenerative medicine Vsevolod Tkachuk, Lomonosov Moscow State University, Moscow
13:50–14:30         14:30–15:10         15:10–15:50	Break Biomedical products in regenerative medicine Vsevolod Tkachuk, Lomonosov Moscow State University, Moscow A new concept of multimodal medical visualization based on optical clearing of tissues in a wide wavelength range Valery Tuchin, Saratov National Research State University named after N. G. Chernyshevsky, Saratov
13:50-14:30 14:30-15:10 15:10-15:50 15:50-16:30	Break         Biomedical products in regenerative medicine         Vsevolod Tkachuk,         Lomonosov Moscow State University, Moscow         A new concept of multimodal medical visualization based on optical clearing of tissues in a wide wavelength range         Valery Tuchin,         Saratov National Research State University named after N. G. Chernyshevsky, Saratov         Microfluidics and nanotechnology for personalized medical diagnostics         Vadim Govorun,         Federal Scientific and Clinical Center for Physical and Chemical Medicine FMBA of Russia, Moscow
13:50-14:30 14:30-15:10 15:10-15:50 15:50-16:30 16:30-16:50	Break         Biomedical products in regenerative medicine         Vsevolod Tkachuk,         Lomonosov Moscow State University, Moscow         A new concept of multimodal medical visualization based on optical clearing of tissues in a wide wavelength range         Valery Tuchin,         Saratov National Research State University named after N. G. Chernyshevsky, Saratov         Microfluidics and nanotechnology for personalized medical diagnostics         Vadim Govorun,         Federal Scientific and Clinical Center for Physical and Chemical Medicine FMBA of Russia, Moscow         Break
13:50–14:30         14:30–15:10         15:10–15:50         15:50–16:30         16:30–16:50         16:50–17:30	Break         Biomedical products in regenerative medicine         Vsevolod Tkachuk,         Lomonosov Moscow State University, Moscow         A new concept of multimodal medical visualization based on optical clearing of tissues in a wide wavelength range         Valery Tuchin,         Saratov National Research State University named after N. G. Chernyshevsky, Saratov         Microfluidics and nanotechnology for personalized medical diagnostics         Vadim Govorun,         Federal Scientific and Clinical Center for Physical and Chemical Medicine FMBA of Russia, Moscow         Break         Additive manufacturing technologies for biomedical products         Vladimir Popov,         Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk
13:50–14:30         14:30–15:10         15:10–15:50         15:50–16:30         16:30–16:50         16:50–17:30         17:30–18:10	Break         Biomedical products in regenerative medicine         Vsevolod Tkachuk,         Lomonosov Moscow State University, Moscow         A new concept of multimodal medical visualization based on optical clearing of tissues in a wide wavelength range         Valery Tuchin,         Saratov National Research State University named after N. G. Chernyshevsky, Saratov         Microfluidics and nanotechnology for personalized medical diagnostics         Vadim Govorun,         Federal Scientific and Clinical Center for Physical and Chemical Medicine FMBA of Russia, Moscow         Break         Additive manufacturing technologies for biomedical products         Vladimir Popov,         Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk         Radiation technologies in medicine         Aleksandr Chernyaev,         Lomonosov Moscow State University, Moscow
13:50–14:30         14:30–15:10         15:10–15:50         15:50–16:30         16:30–16:50         16:50–17:30         17:30–18:10         18:10–18:50	Break         Biomedical products in regenerative medicine         Vsevolod Tkachuk,         Lomonosov Moscow State University, Moscow         A new concept of multimodal medical visualization based on optical clearing of tissues in a wide wavelength range         Valery Tuchin,         Saratov National Research State University named after N. G. Chernyshevsky, Saratov         Microfluidics and nanotechnology for personalized medical diagnostics         Vadim Govorun,         Federal Scientific and Clinical Center for Physical and Chemical Medicine FMBA of Russia, Moscow         Break         Additive manufacturing technologies for biomedical products         Vladimir Popov,         Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk         Radiation technologies in medicine         Aleksandr Chernyaev,         Lomonosov Moscow State University, Moscow         Hybrid laser nanotechnologies againstresistant bacterial biofilms         Andrey Ionin,         Physical Institute named after P.N. Lebedev of RAS, Moscow
13:50–14:30         14:30–15:10         15:10–15:50         15:50–16:30         16:30–16:50         16:50–17:30         17:30–18:10         18:10–18:50         18:50–19:00	Break         Biomedical products in regenerative medicine         Vsevolod Tkachuk,         Lomonosov Moscow State University, Moscow         A new concept of multimodal medical visualization based on optical clearing of tissues in a wide wavelength range         Valery Tuchin,         Saratov National Research State University named after N. G. Chernyshevsky, Saratov         Microfluidics and nanotechnology for personalized medical diagnostics         Vadim Govorun,         Federal Scientific and Clinical Center for Physical and Chemical Medicine FMBA of Russia, Moscow         Break         Additive manufacturing technologies for biomedical products         Vladimir Popov,         Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk         Radiation technologies in medicine         Aleksandr Chernyaev,         Lomonosov Moscow State University, Moscow         Hybrid laser nanotechnologies againstresistant bacterial biofilms         Andrey Ionin,         Physical Institute named after P.N. Lebedev of RAS, Moscow

	TUESDAY, 20 OCTOBER 2020							
08:00-09:00	REGISTRATION OF PARTICIPANTS							
	Hall 1		Hali 2		Hall 3		Hall 4	
Session Chai	Biomedical photonics rs: Vyacheslav Gordienko, Valery Tuchin, Alexander Shkurinov	New Sessi	r biomedical methods, devices and materials on Chairs: Sergey Gonchukov, Vladimir Minaev	F Session Cha	Regenerative technologies, tissue engineering Session Chairs: Valerian Kagan, Anastasia Efimenko, Petr Timashev		Symposium "Advanced MRI Methods for Precision Medicine" Session Chairs: Pirogov Yu.A., Pavlovskaya G.E.	
09:00-09:20	Medical Optoacoustics: From ideas to clinical studies and theranostics Esenaliev R.O., University of Texas, Galveston, USA	09:00-09:20	Physical methods of diagnosis and treatment in oncology Reshetov I.V., I.M. Sechenov First Moscow State Medical University (Sechenov Liberariik) Moscow	09:00-09:20	Experimental approaches to the creation of bioengineered constructs of the pancreas Sevastianov V.J., Institute for Biomedical Research and Technology, Moscow	09:00-09:30	Multi-nuclear MRI techniques Pirogov Yu.A., Lomonosov Moscow State University, Moscow	
09:20-09:40	Femtosecond laser technologies indiversity of Pestosecond laser technologies indiversity of technologies indindive	09:20-09:40	(SecJenR/Or Onimersity), Musclow Magnetometric systems and methods of thin magnetic measurements for biomedical applications Maslennikov Yu.V., Institute of Terrostrial Magnetism, Jonosphere and Radio Wave Propagation named after N. V. Pushkova, Moscow, Troisk	09:20-09:40	Institute of cloneauan research and reclinicity, moscow In situ Bioprinting Mirnory VA, Institute of Regenerative Medicine J.M. Sachenov First Moscow State Medical University (Sechenov University), Maccow	09:30-09:50	MRI diagnosis of diabetes Pavlovskaya G.E., University of Notingham, UK	
09:40-10:00	Optical tweezers and new frontiers for biomedical research <b>Priezhev A.V.,</b> Lomonosov Moscow State University, Moscow	09:40-10:00	Depth-dependent determination of skin barrier related parameters of the human stratum corneum using in vivo confocal Raman microscopy Darvin. M.E., Charlier Insurative Medical Complex Partin	09:40-10:00	Study of the machanisms of intercellular communication for the creation of new approaches in regenerative medicine Efimenko A.Yuu, Institute of Regenerative Medicine, Lomonosov Moscow State University Mecanism.	9:50-10:15	Hyperpolarization diagnosis of lung diseases Meersman T., University of Nottingham, UK	
10:00-10:15	Is the Monte Carlo method accurate in theoretical problems in biomedical optics? Rogatkin D.A., Moscow Regional Research Clinical Institute named after M. F. Vladimirsky, Moscow	10:00-10:15	Fundamental aspects of the supercritical fluidic technologies used for synthesis of highly porous polymeric matrices for regenerative medicine Zimnyakov D.A., Saratov State Technical University named after Gagarin Yu.A., Saratov	10:00-10:15	BMCP for replacing skin defects: characteristics and preclinical study Aleinik D.Ya., Privolzhsky Research Medical University, Nizhny Novgorod	10:15-10:30		
10:15-10:30	New laser method for restoring the anatomical integrity of the airways in laryngeal stenosis <b>Baum O. I.</b> Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk	10:15-10:30	Minimally invasive laser thermosurgery of the glial brain turnors: clinical and experimental correlations Ostreiko O.V., Pavlov First Saint Petersburg State Medical University, Saint Petersburg	10:15-10:30	Cell-engineered constructs of cartilage tissue based on biopolymer hydrogel and tissue-specific matrices Basok Yu.B, National Medical Research Center for Transplantology and Artificial Organs named after academician V.I. Shumakova, Moscow	10:30-10:45		
10:30-10:45	Application of two-micron radiation for endovasal laser coagulation Ryabochkina P.A., National Research Mordovian State University named after N.P. Ogareva, Saransk	10:30-10:45	Experimental and clinical justification of the effectiveness of interstilial selective laser photodestruction method for the treatment of local forms of hemangiomas in children Dorofeev A.V., Research Institute of Emergency Pediatric Surgery and Traumatoloxy "Department of Health of Moscow, Moscow	10:30-10:45	Composite porous tubular biopolymer matrix for small diameter blood vessels development Surguchenko V.A., National Medical Research Center for Transplantology and Artificial Organs named after academician V.I. Shumakova, Moscow	10:45-11:00		
10:45:11:00	Optical methods in the study of ultraviolet- induced skin damage in vivo Makmatov-Rys M.B., Regional Research Clinical Institute named after M. F. Vladimirsky, Moscow	10:45:11:00	Minaev N.V., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk	10:45:11:00	Development and study matrixes for cell- and tissue- engineered constructs of liver Grigoryev A.M., National Medical Research Center for Transplantology and Artificial Organs named after academician V.I. Shumakova, Moscow			
11:00-11:15			•	Diana	Break			
11:15-12:15				Pienal	Hall 1			
11:15-11:45				Eliza Humanitas	aveta Kon, University, Milan			
11:45-12:15				Massou	und Vosough,			
12:15-13:00				Royan ir	Break			
	Hall 1		Hall 2		Hall 3		Hall 4	
						Symposium	"Advanced MRI Methods for Precision Medicine"	
Session Chai	rs: Vyacheslav Gordienko, Valery Tuchin, Alexander Shkurinov	New biomedical methods, devices and materials Session Chairs: Sergey Gonchukov, Vladimir Minaev		thods, devices and materials Regenerative technologies, tissue engine y Gonchukov, Vladimir Minaev Session Chairs: Valerian Kagan, Anastasia Efimenko		Fundamental appresentation in mage	proaches to increasing the sensitivity, spatial and temporal letic resonance imaging and spectrography (reports on RFBR projects) ssion Chairs: Makurenkov A.M., Polshakov V.I.	
13:00-13:20	NIR autofluorescence of biotissues: its origin and novel diagnostic capabilities Shirshn E.A., Lomonosov Moscow State University, Moscow	13:00-13:20	New in medical devices and methods, used laser light Minaev V.P., IPG IRE-Polus, Fryazino	13:00-13:20	Mechanisms of damage and repair of brain neurons in the model of tissue engineering therapy of craniocerebral trauma <b>Pinelis V.G.</b> , National Medical Research Center for Children's Health, Moscow	13:00-13:15	Parahydrogen-induced polarization of nuclear spins in homogeneous and heterogeneous hydrogenation processes for magnetic resonance applications Koptyug I.V., International tomography center, Siberian Branch of RAS, Norvesilink	
13:20-13:40	Prospects and artifacts of THZ time-domain spectroscopy of biological solutions Nazarov M.M., National Research Center «kurchatov Institute», Moscow	13:20-13:40	New photonic technologies for assessing the severity of edematous syndrome in chronic heart failure Gurfinkel Yu.I., Lomonosov Moscow State University, Moscow	13:20-13:40	Mechanisms of actions of transplanted neural precursor cells in spinal cord injury Baklaushev V.P., Federal scientific clinical center for specialized types of medical care and medical technologies FMBA of Russia, Moscow	13:15-13:30	Highly sensitive optical quantum magnetic field sensor for bimodal structural and functional neuro mapping systems that combine magnetic resonance imaging and magnetoencephalography Vershovsky A.K., Ioffe Institute, Saint Petersburg	
13:40-13:55	Itterbium porphyrin complexes in luminescent diagnostics and cancer teranostics Vanov A.V., N.N. Blokhin National Medical Research Center of Oncology, Moscow	13:40-14:00	Is it possible for optical coherence tomography to take a reliable place in non-ophthalmological clinical studies? Glatkova N.D., Privolzhsky Research Medical University, Nizhny Novgorod	13:40-14:00	Nonwoven fibrous materials based on polysaccharides modified in solid state Akopova T.A., Institute of synthetic polymeric materials named after N.S. Enikolopov, Moscow	13:30-13:45	Quantitative approaches to processing magnetic resonance imaging data to increase the sensitivity and information content of the method for diagnostic tasks Ilyasov K.A., Kazan Federal University, Kazan	
13:55-14:10	Action of low-intensity femtosecond laser radiation with a wavelength of 525 nm on mouse tissue in vivo Dyukina A.R., Institute of theoretical and experimental	14:00-14:15	Redistribution of the brain reactions to the rhytmical visual stimulation in the cerebral cortex Polikarpov M.A., National Research Center «Kurchatov Institute», Moscow	14:00-14:15	Laser correction of cytoglobin- coupled signal network in chondrocytes Tiftova 0. A., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Trotisk	13:45-14:00	Numerical modeling and experimental study of thermophysical and electromagnetic properties of helium-free MRI in order to create a new generation MRI scanner Demikhov Ye.I., Lebedev Physical Institute of RAS, Moscow	
14:10-14:25	Diagnostics of slow deformations in cartilage implants by the means of optical coherence elastography Alexandrovskaya Yu.M., Federal Research Center "Crystallography and Photomics" of PAC Mercour Troitek	14:15-14:30	Prospects use of low-temperature plasma of atmospheric pressure against intracellular parasites Ermolaeva S.A., National Research Center for Epidemiology and Microbiology named after N.F. Gamaleya, Moscow	14:15-14:30	Testing biodegradable vascular prostheses in large laboratory animal models: 5 stages of accepting the inevitable Antonova L.V., Research Institute of Complex Problems of Cardiovascular Diseases, Komerovo	14:00-14:15	Development of new theranostic MRI agents based on magnetic nanoparticles for the diagnosis and therapy of cancer Subthorukev CB.9, National Research Mordovian State University named after N.P. Ogareva, Saransk	
14:25-14:40	Raman diagnostics of carotenoids: experiment and DFT computation <b>Prokhorov K.A.</b> , Institute of General Physicsnamed after A.M. Prokhorov. Moscow	14:30-14:45	Evaluation of a novel MID-IR laser for soft tissue ablation Arkhipova V. A., IPG IRE-Polus, Fryazino	14:30-14:45	Homologous BMCP model Egorikhina M.N., Privolzhsky Research Medical University, Nizhny Novgorod	14:15-14:30	Development of methods for increasing the sensitivity of magnetic resonance imaging and spectroscopy on the nuclei of fluorine, sodium and phosphorus Gulyaev M.V., Lomonosov Moscow State University, Moscow	
14:40-14:55	Examination of blood and urine of children with macrohematuria syndrome by IR spectroscopy <b>Pavlov A.N.</b> , North - Eastern Federal University named after M.K. Ammosova, Physics and Technology Institute Yakutsk	14:45-15:00	Modeling of 1.94 µm endovenouse laser treatment with blood plasma Kaperiz K.A., First Phlebological Center, Moscow	14:45-15:00	Innovative approaches to optimizing the quality of bone implants Rozanov V.V., Lornonosov Moscow State University, Moscow	14:30-14:45	Thermo-acoustic detection of electron paramagnetic resonance by recombination heat release <b>Anisimov O.A.</b> , Voevodsky Institute of Charling Kinetics and Combustion, Novosibirsk	
14:55-15:10	Molecular THZ and IR imaging of cancer tissues embedded in paraffin Kistenev Yu.V., Tomsk State University, Tomsk	15:00-15:15	Advanced fiber solutions in 0.3-16µm range for medical applications Artyushenko V. G., Art photonics GmbH, Berlin	15:00-15:15	Application of cellular technologies for deep thermal burns and local radiation injuries Astrelina T.A., Federal Medical Biophysical Center named after A.I. Burnazyan, Moscow	14:45-15:00	Development of a fundamental method for the hyperpolarization of nuclear spins of some noble gases for MRI based on spectrally selective sources of high-power narrow-band laser radiation Antipov A., Federal Research Center "Crystallography and Photonics" of RAS. Moscour. Trolisk	
15:15-15:30				Diares	Break			
15:30-16:30				Pienal	Hall 1			
15:30-16:00			Institute of Regenerative Medicine, I.M.	Roc Sechenov First M	chev Y.A., loscow State Medical University (Sechenov University), Moscow			
			This beautiful, greasy and rusty	life: Redox Lipidon	nics of Cell Programs for Elimination of the Unnecessary			
16:00-16:30	Kagan V.E., University of Pittsburgh, Pittsburgh, USA							
16:30-16:45	Hall 4		Hall		Break		Lieu -	
Session Cha	Biomedical photonics rs: Vyacheslav Gordienko, Valery Tuchin,	New Sessie	nair 2 I biomedical methods, devices and materials on Chairs: Sergey Gonchukov, Vladimir Minaev	Hall 3 Regenerative technologies, tissue engineering Session Chair: Valerian Kanan, Anatoria Elimonto, Det Terreturi		Hall 4 Symposium "Advanced MRI Methods for Precision Medicine" Fundamental approaches to increasing the sensitivity, spatial and temporal resolution imagnetic reasonage imagina and experienzative (server an PER		
	Alexander Shkurinov		,			Se	projects) ssion Chairs: Makurenkov A.M., Polshakov V.I.	
16:45-17:00	Ozone-photodynamic therapy of experimental tumors Shcherbatyuk T.G., Pushchino State Natural Science Institute, Pushchino	16:45-16:55	The use of optical methods in the detection of fibril Rovnyagina N.R., Lomonosov Moscow State University, Moscow	16:45-17:05	Silk structural proteins for tissue engineering and regeneration Moisenovich M.M., Lomonosov Moscow State University, Moscow	16:45-17:00	Spin hyperpolarization in switched magnetic fields Yurkovskaya A.V., International tomography center, Siberian Branch of RAS, Novosibirsk	
17:00-17:15	Investigation of the metabolism of cancer cells during apoptosis using fluorescence time- resolved microscopy Gavrina A.I., Privolzhsky Research Medical University, Michnu Neurogod	16:55-17:05	Method of laser doppler flowmetry in the assessment of the severity of diabetic neuropathy Kozlova K.A., Regional Research Clinical Institute named after M. F. Vladimirsky, Moscow	17:05-17:25	Application of stereolitographic 3D-printing for the formation of scutfold with a complex interior architecture Putlyaev V.I, Lomonosov Moscow State University, Moscow	17:00-17:15	Photo-induced hyperpolarized triplet states as promising spin labels for high-sensitivity dipole EPR spectroscopy Krumkacheva O.A., International tomography center, Siberian Branch of RAS, Novosibirsk	

17:15-17:30	Analysis of the dynamics of human radiation in the IR-THZ of the frequency range as a new approach to diagnosis of the psycho-emotional state of the human Berlovskaya E.E., Lomonosov Moscow State University, Moscow	17:05-17:15	Study of the hydrogel volume photocrosslinking process Savelyev A.G., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk	17:25-17:45	Cell therapy possibilities in the restoring of the vocal folds biomechanics after scarring. An experimental study Svistushkin V.M., I.M. Sechenov First Moscow State Medical University (Sechenov University), Moscow	17:15-17:30	Methods of excitation of magnetic resonance in ultra-high-field tomography of the human body, based on the emission of leaky waves Simovsky K.R., ITMO University, Saint Petersburg
17:30-17:45	Possibilities of terahertz pulsed spectroscopy in the diagnosis of molecular markers of gliomas <b>Cherkasova O.P.</b> , <i>Institute of Laser Physics</i> , Novosibirsk	17:15-17:25	Hemodynamic disorders in the urethra with uretral pain syndrome in women Kuyarov A.S., Clinical hospital "kusar Akiways-Medicine", Nizhny Novgorod	17:45-18:00	The experimental model of cancer cells growth on polymer microspheres Bonartsev A.P., Lomonosov Moscow State University, Moscow	17:30-17:45	Evaluation of the ratio of GABA concentrations in the white and gray matter of the brain as a new biomarkee of disorders of brain metabolism and standardization of studies for clinical MRI scanners from different manufacturers Kupriyanov D.A., National Research Center «Kurchatov institute», Moscow
17:45-18:00	Terahertz reflectometry for evaluation of the stability of the tear film Ozheredov I.A., Lomonosov Moscow State University, Moscow	17:25-17:35	New technology for hemodynamics assessment in patients with diabetes mellitus Glazkov A.A., Regional Research Clinical Institute named after M. F. Vladimirsky, Moscow	18:00-18:15	Adoptive cellular immunotherapy of solid tumors by means of tumor inflating lymphocytes Yusubalieva C.M., Federal scientific clinical center for specialized types of medical care and medical technologies FMBA of Russia, Moscow		
18:00-18:15	THz spectroscopy for diagnostics of dry pellets of human blood plasma Smolyanskaya O.A., Saint Petersburg National Research University of Information Technologies, Mechanics and Optics, Saint Petersburg	17:35-17:45	Photophysical properties and photochemical activity of fullerene-chlorin dyad nanostructures Belik A.Yu., Institute of Problems of Chemical Physics of RAS, Chernogolovka	18:15-18:30	Sapphire shaped crystals for medical applications Dolganova I.N., Institute of Solid State Physics RAS, Chernogolovka		
		17:45-17:55	Photosenstive star-shaped polylacide: physicochemical, antimicrobial properties and biocompatibility of three- dimensional scatfolds based on it Bardakova K.N., Federal Research Center "Crystallography and Photonics" of the RAS, Moscow, Troitsk				
		17:55-18:05	Novel techniques based on femtosecond laser scalpel for assisted reproductive technologies (art) lina I.V., Joint Institute for High Temperatures of RAS, Moscow				
18:30-18:45					Break		
18:45-19:30	Poster session						

			WEDNESDAY, 21 OCTOBER 2020				
08:00-09:00	REGISTRATION OF PARTICIPANTS						
	Hall 1		Hall 2		Hail 3		
Session	Nanotechnology for medicine Chairs: Boris Chichkov, Andrey Naumov	Nu Session	Iclear and radiation diagnostics and therapy Chairs: Sergey Akulinichev, Alexander Chernyaev	Session	Regenerative technologies, tissue engineering Chairs: Valerian Kagan, Anastasia Efimenko, Petr Timashev		
09:00-09:20	Targeted nanostructures for oncotheranosis Deev S.M., Shemyakin and Ovchinnikov Institute of Bioorganic Chemistry, Moscow	09:00-9:20	Development of proton radiation therapy in Russia and the world Klenov G.I., National Research Center «Kurchatov Institute», Moscow	09:00-09:20	Entropy of nanonechance and optical microscopy of nanonechanical mapping of cells Efremov Yu.M., Institute of Regenerative Medical University Sechenov First Moscow State Medical University (Sechenov University), Moscow		
09:20-09:40	Gold and hybrid plasmonic nanoparticles for biomedical applications Khlebtsov N.G., Institute of Biochemistry and Physiology of	09:20-09:40	Opportunities of proton flash therapy at the accelerator of IHR RAS Akulinichev S.V., Institute for Nuclear Research (INR) of RAS, Moscow	09:20-09:35	Metabolic status as a potential marker of effectiveness of induced pluripotent stem cells differentiation Kashirina A.S., Privolzhsky Research Medical University, Nizhny Novgorod		
09:40-10:00	Figure 2017 Functional advantages of upconversion nanomaterials for biotechnologies and medicine Khaydukov E.V., Federal Research Center "Crystallography and	09:40-10:00	Pplications of modern optical diagnostic methods in radiation oncology Maslennikova A.V., Privolzhsky Research Medical University, Nizhny	09:35-09:45	Metabolic imaging of the liver tissue in the process of normal regeneration <b>Rodimova 5.A.,</b> Privolzhsky Research Medical University, Nizhny Novgorod		
10:00-10:20	Advanced nanotechnologies for nuclear nanomedicine Zavestovskaya I.N., Higher School of Physicists named after N.G.	10:00-10:15	Validation of the Monte Carlo code of electron transfer and gamma radiation MC Gorlachev G.E., N.N. Blokhin National Medical Research Center of	09:45-09:55	Replacement of bone defects with synthesized biocomposite Afonin I.S., Pacific State Medical University, Vladivostok		
10:20-10:35	Basov, Moscow Magnetic nanoparticles for nucleic acid isolation from blood cells Komina A.V., Krasnoyarsk Scientific Center, Krasnoyarsk	10:15-10:30	Oncology, Moscow Concept of a compact linear proton accelerator for medicine Institute for Nuclear Research (INR) of RAS, Moscow	09:55-10:05	Biomechanical properties of the human lens capsule assessed with AFM and nanoindenter in relation to human age, disease and dye straining Shavkuta B.S., Institute of Regenerative Medicine, I.M. Sechenov First Moscow State Medical University (Sechenov University). Moscow		
10:35-10:50	High pressures in the synthesis of materials for nanobiotechnology Davydov V.A., Institute for High Pressure Physics named after L.F. Vereshchagina of RAS, Troitsk	10:30-10:45	Changing the paradigm of radiation therapy in the era of stereotactic radiotherapy Golanov A.V., Scientific Research Institute of Neurosurgery named after N.N. Burdenko. Moscow	10:05-10:15	Features of the growth of tumor cell during repopulation of acellular organ matrices Pospelov A.D., Lobachevsky State University, Nizhni Novgorod		
		10:45-11:00	Influence of high-power pulses of terahertz radiation on cell viability Sitnikov D.S., Joint Institute for High Temperatures of RAS, Moscow	10:15-10:25	Photobiomodulation of cell metabolism within 3D tissue-engineered structures Bikmulina P.Yu., Institute of Regenerative Medicine, I.M. Sechenov First Moscow State Medical University (Sechenov University), Moscow		
				10:25-10:35	Smart scaffolds with up-converting nanophosphors for tissue ebgineering Trifanova E.M., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk		
				10:35-10:45	Stem cell metabolism on heterogeneous tissue-engineered constructs Kuznetsova D.S., Privolzhsky Research Medical University, Nizhny Novgorod		
				10:45-10:55	Minaeva E.D., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk		
<u>11:00-11:15</u> 11:15-12:15			Break Plenary session 1				
11:15-11:45	Hall 1       1:45     A linacfor proton therapy: advantages and outlook Dr. Jonathan Farr, Clinic for Progressive Cancer Therapy, Switzerland						
11:45-12:15		In	frared molecular fingerprinting of human blood as a possible i Mihaela Zigman, Max Planck Institute for Quantum Optics, Garching	tool for disease de g, Germany	tection		
12:15-13:00	Hall 1		Hall 2		Hall 3		
Session	Nanotechnology for medicine Chairs: Boris Chichkov, Andrey Naumov	Nu Session	iclear and radiation diagnostics and therapy Chairs: Sergey Akulinichev, Alexander Chernyaev	\$	New biomedical methods, devices and materials Session Chairs: Sergey Gonchukov, Vladimir Minaev		
13:00-13:20	Laser printing of biomaterials and living cells Chichkov B.N., University of Hannover, Hannover, Germany	13:00-13:20	Radiopharmaceuticals for targeted therapy of oncological diseases based on alpha- and beta-emitting radionuclides Chuvilin D.Yu., National Research Center «Kurchator Institute», Moscow	13:00-13:15	Diagnostic systems based on microfluidic technologies Klinov D.V., Scientific Research Institute of Physical-Chemical Medicine, Moscow		
13:20-13:40	The challenge of intracellular temperature Plakhotnik T.V., University of Queensland, Brisbane, Australia	13:20-13:40	New Ideas in Radiation Therapy Yartsev V.M., Westem University, London, Canada	13:15-13:30	Oct-lymphangiography and oct-angiography for assessing the functional state of the vulvar mucosa Sirotkina M.A., Privolzhsky Research Medical University, Nizhny Novgorod		
13:40-14:00	How plasmonic biosensors can be useful for medical applications Drachev V.P., North Texas University, Denton, USA	13:40-14:00	Modern computing technologies in radiation medicine and radiobiology Kurachenko Yu.A., Russian Institute of Radiology and Agroecology, Obninsk	13:30-13:45	Cross-polarization oct and oct-angiography for the evaluation of small intestine vitality in acute ischemia Kiseleva E.B., Privolzhsky Research Medical University, Nizhny Novgorod		
14:00-14:20	Non-conventional approaches to signal acquisition, processing and analysis in nuclear magnetic resonance Krzysztof Kazimierczuk, University of Warsaw, Warsaw, Poland	14:00-14:15	Physico-biological aprouches for verification of stereotactic radiotherapt plans Sukhikh L.G., Tomsk Polytechnic University, Tomsk	13:45-14:00	Optical coherence tomography for middle ear investigation Shilyagin P.A., Institute of Applied Physics of RAS, Nizhny Novgorod		
14:20-14:35	X-RAY radiation in liquid crystal nanostructures with metals Skorkin V.M., Institute for Nuclear Research (INR) of RAS, Moscow	14:15-14:30	Efficiency of high-energy radiation therapy: comprehensive study of risk factors <b>Zhełtonozhskaya N.V.</b> Lomonosov Moscow State University, Moscow	14:00-14:15	Analysis of interictal EEG signals correlations for diagnostic of epilepsy Demin S.A., Kazan Federal University, Kazan		
14:35-14:50	Photoluminescent silicon nanoparticles of the "core-shell" type as a diagnostic biomaterial Sviridov A.P., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk	14:30-14:45	Correction factors for the output of micro-ionization chambers for dosimetry of small fields generated by bremsstrahlung beams with a maximum energy of 18 MeV Serikbekova Z.K., Burnasyan Federal Medical Biophysical Center of Federal Medical Biological Agency. Moscow	14:15-14:30	Influence of physical factors associated with high-current electrical explosion of conductors in a vacuum on biological systems <b>Pryakhin E.A.,</b> Ural Scientific and Practical Center for Radiation Medicine, Chelyabinsk		
14:50-15:05	Biogenic ferrihydrite nanoparticles: characterization and «in vivo» testing in experimental hemolitic anemia Boldyreva A.V., Krasnoyarsk Scientific Center of the Siberian Branch of RAS. Krasnovarsk	14:45-15:00	"Solid" (gel-like) particles of liquid crystal dispersion of DNA as a new type of carrier for gadolinium for neutron capture therapy Evdokimov Yu.M., Engelhardt Institute of Molecular Biology of RAS, Moscow	14:30-14:45	Optimization of parameters of processing bioobjects using radiation technologies Biznyuk U.A., Lomonosov Moscow State University, Moscow		
		15:00-15:15	Custom blocks made of metal crumb for electron external beam radiotherapy <b>Moiseev A.N.</b> , <i>Ltd Medskan, Moscow</i>	14:45-15:00	Functional microwave thermal imaging method: testing on models of experimental oncology Zinovyee S.V., N.M. Blokhin National Medical Research Center of Oncology, Moscow The tochonology of build in the second seco		
1				15:00-15:15	tissue cysts and fistulaseň		
				10.00 10.10	Abushkin I.A., Center for Medical Laser Technologies, Chelyshinsk		

	Plenary session 2					
15:30 -16:30			Hall 1			
15:30-16:00	Optical coherence tomography, non-linear microscopy, and optogenetic control for mechanistic investigation of early embryonic development Irina Larina, Baylor College of Medicine, Houston, USA					
16:00-16:30	Recent advances in particle therapy Marco Durante, Heavy Ion Research Center Helmholtz, Darmstadt, Germany					
16:30-16:45			Break	.,		
	Hall 1		Hall 2		Hall 3	
Session (	Nanotechnology for medicine Chairs: Boris Chichkov, Andrey Naumov	Nu Session	clear and radiation diagnostics and therapy Chairs: Sergey Akulinichev, Alexander Chernyaev	Session Cha	Biomedical photonics irs: Vyacheslav Gordienko, Valery Tuchin, Alexander Shkurinov	
16:45-17:00	Biofunctional nanoparticles for laser modification and therapy of cartilage tissue Omelchenko A.I., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk	16:45-17:00	Development of a method for control of dose distribution in radiation therapy on photon beams <b>Sinelnikov A.G.,</b> <i>Lomonosov Moscow State University, Moscow</i>	16:45-17:00	Measurement of GABA+, GABA- and MM in response to visual stimulation Yakovlev A.N., Emanuel Institute of Biochemical Physics of RAS, Moscow	
17:00-17:10	Photoelastic deformations of phantoms and tissues impregnated with nanoparticles Kasianenko E.M., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk	17:00-17:15	Radiation-hygienic and dosimetric aspects of extravasal introduction of therapeutic radiopharmaceuticals Lysak Yu.V., Ltd Medskan, Moscow	17:00-17:15	Investigation of formation mechanisms of optical properties of heterogeneous fluorophore systems and their role in optics of biological tissues Rubekina A.A., Lomonosov Moscow State University, Moscow	
17:10-17:20	Influence of silver nanoparticles on cognitive abilities in mice and offspring <b>Ivlieva A.L.,</b> Regional Research Clinical Institute named after M. F. Vladimirsky, Moscow	17:15-17:30	Modern paradigm of total body irradiation development technologies for pediatric's hematology needs Loginova A.A., Dmitry Rogachev National Research Center, Moscow	17:15-17:25	Optical approaches for measuring hydration and kinetics of water content in tissues Yakimov B.P., Lomonosov Moscow State University, Moscow	
17:20-17:30	Control of permeability of polyelectrolyte microcapsules by using a low-frequency magnetic field Burmistrov I.A., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk	17:30-17:40	The effect of PGH synthetase inhibitors on the intensity of bold signal in the brain visual cortex during video stimulation. Functional MRI <b>Ublinskiy M.V.,</b> Research Institute of Emergency Pediatric Surgery and Traumatology, Moscow	17:25-17:35	Comparison of two approaches to accounting for absorption in monte carlo modeling of light transport in tissues Tarasov A.P., Regional Research Clinical Institute named after M. F. Vladimirsky, Moscow	
17:30-17:40	Study of the influence of brownian diffusion on mössbauer spectra of magnetic nanoparticles in cell cytoplasm simulating media Gabbasov R.R., National Research Center «Kurchatov Institute». Moscow	17:40-17:50	Results of first biological experiments on flash therapy at the INR RAS accelerator <b>Martynova V.V.,</b> Institute for Nuclear Research (INR) of RAS, Moscow	17:35-17:45	Impact of the bound water on dielectric properties of blood serum with experimental liver cancer in thz frequency range Konnikova M.R., Federal Research Center "Crystallography and Photonics" of RAS, Shatura	
17:40-17:50	Investigation and visualization of the volume with magnetic nanoparticles without applying a magnetic field using a multi-channel magneto- encephalographic device Yurenya A.Yu., National Research Center «Kurchatov Institute». Moscow	17:50-18:00	Application of a powerful electron accelerator for the production of medical radioisotopes and photoneutrons Onischuk H.A., Technical Academy of Rosatom, Obninsk	17:45-17:55	Analysis of collagen optical and structural characteristics by SHG microscopy in 3D tumor models in vitro and during chemotherapy of tumors in vivo Dudenkova V.V., Privolzhsky Research Medical University, Nizhny Novgorod	
17:50-18:00	Epifanov E., Federal Research Center "Crystallography and Photonics" of RAS, Moscow, Troitsk	18:05-18:15	Influence of a buffering agent on the ratio of chemical forms of gallium-68 in drugs for nuclear medicine Arefieva E.S., Lomonosov Moscow State University, Moscow	17:55-18:05	Laser doppler flowmetry in estimating tone of skin micro-vessels in patients with arterial hypertension Glazkova P.A., Regional Research Clinical Institute named after M. F. Vladimirsky, Moscow	
		18:15-18:25	Possibility of realization of the proton tomography system as a part of proton therapic complexes based on protom synchrons <b>Pryanichnikov A.A.,</b> JSC Protom, Protvino	18:05-18:15	Possibilities of differentiation of the thyroid gland from the parathyroid glands using the autofluorescence signal Gogoleva M.A., Lomonosov Moscow State University, Moscow	
		18:25-18:35	Modeling the head of a medical linear accelerator Shcherbakov A.A., Lomonosov Moscow State University, Moscow	18:15-18:25	THZ dielectric spectroscopy of human brain gliomas featuring who grade I—IV and THZ microscopy of glioma model 101.8: a potential of intraoperative THZ neurodignosis and origin of contrast <b>Zaytsev K.I.,</b> Institute of General Physics named after A.M. Prokhorov of RAS, Moscow	
		18:35-18:45	Magnetic resonance spectroscopy as a tool for glutamate concentration measurement in activated human cerebral cortex Marzhurtsev A.V., Emanuel Institute of Biochemical Physics of RAS, Moscow			
18:45-19:00		-	Break	•	•	
19:00			Closing of the conference. Winner's reward of	eremony.		

POSTER SESSION, 20 OCTOBER 2020				
Biomedical photonics				
P. Ermolinskiy, F. Yaya, A. Lugovtsov, K.	The effect of RBC age on their aggregation properties			
A.A. Gerzhik, I.A. Raznitsyna	RGB image analysis for blood concentration estimation			
N.Yu. Ignatieva, O.L. Zakharkina, E.A. Sergeeva, E.N. Iomdina	Change in sclera permeability after infrared laser exposure of moderate intensity			
A.A. Kapkov, P.B. Ermolinsky , Popov A.P., Lugovtsov A.E. , Priezzhev A.V.	Interaction of erythrocytes with silicon nanoparticles			
I. A. Raznitsyna, D.A. Rogatkin	Method for calculating the fluorophore concentration in biotissues based on a laser fluores-cence spectroscopy in vivo			
V.A. Semchishen, E.V. Khaidukov	Phase screen model for a three-dimensional scattering medium			
Shimolina L.E., Shirmanova M.V., Kuimova M.K., Lukina M.M., Ignatova N.I., Zagainova E.V.	Imaging of membrane microviscosity changes in tumor cell using fluorescent molecular ro-tors and flim microscopy during chemotherapy			
O.L. Zakharkina, N.B. Serezhnikova, A.B. Shekhter, N.Yu. Ignatieva	Laser-induced modification of cartilage to prepare a double-layered scaffold			
	Nanotechnology for medicine			
V.A.Arkhipov, A. A. Nikitin, M. A. Abakumov	Investgation of the reaction parameters influence on shape and size of magnetic nanoparti-cles			
I.A. Burmistrov, D.B. Trushina, T.N. Borodina, M.M. Veselov, N.L. Klyachko, V.B. Zaitsev, Y. González-Alfaro, T.V. Bukreeva	Control of permeability of polyelectrolyte microcapsules by using a low- frequency magnetic field			
I. N. Dashevskiy	AB INITIO calculations of bond energy (adhesive strength) between titanium and bioactive coating fragments			
P.A. Demina, N.V. Sholina, R.A. Akasov, N.A. Arkharova, A.V. Nechaev, A.N. Gen- eralova, E.V. Khaydukov	Biocompatible nanoagents based on apconversion nanoparticles for acute inflammation vis-ualization in vivo			
I.A. Konobeev, I.N. Sheino	Calculation of cell survival after irradiation in the presence of gold nanoparticles taking into account oxidative stress			
A.V. Koshelev, N.A. Ivanovskaya, N.A. Arkharova, D.N. Karimov, E.V. Khaydukov	Obtaining and studying the structure of crystal nanoparticles NaYF4:Yb3+, Er3+			
V.V.Malyshko	Effect of heat treatment on the sorption of silver nanoparticles on the surface of the suture material			
E. Perevedentseva, N. Ali, R. Selvam, KT. Wu, A. Karmenyan, S. Vanio, M. Kinnunen, CL. Cheng	Perspectives for multifunctional biomedical applications of nanodiamonds with added magnetic properties			
A.A. Ramanenka, S.V. Vaschenko, O.S. Kulakovich, A.O. Muravitskaya, A.A. Lizunova, S.V. Gaponenko	Plasmon-enhanced fluorescence using silver nanoparticles for immunofluorescence point-of-care testing of prostate specific antigen			
A.V. Sokovikov	Upconversion nanoparticles for local thermal sensing in nanodiamonds modified polymer capsules			
Yu.V. Soldatova, A.V. Zhilenkov, Troshin P.A., D.A. Areshidze, Kotelnikova R.A.	Anti-diabetic action of pentamino acid derivatives of fullerene C60			
I. A. Sologubova, A. I. Omelchenko, E.M. Kasianenko, Yu.M. Alexandrovskaya, K.V.Frolov	Impregnation of biotissue with ferrofluid of composite nanoparticles with x- ray contrast substance			
D.A. Zazymkina,S.I. Kudryashov, A.A. Nastulyavichus, E.R. Tolordava, A.A.Rudenko, Yu.M. Romanova, A.A. Ionin	Laser-induced forward transfer (lift) as a method for destroying bacterial biofilms			
New bion	nedical methods, devices and materials			

A. E. Aldibekova, , E. V. Styazhkina, L. I. Urutskoev, N. Z. Chikovani , E. A. Pryakhin	Study of mutagenic properties of factors associated with high-current electrical explosion of conductors in vacuum using the allium test
A.A. Antipov, A.G. Putilov, A.V. Osipov,	Narrow-band tunable laser for application in methods of spin-exchange
M. M. Akhmetov, G. G. Gumarov, V. Yu.	
Petukhov, M. Yu. Volkov	NMR study of the mixture of gluconic acid salts
K.A. Achkasova, E.B. Kiseleva, K.S. Yashin, A.A. Moiseev, N.D. Gladkova	Cross-polarization optical coherence tomography for intraoperative navigation in neurosur-gery
D. V. Bagrov, E. R. Pavlova, E. N. Grafskaia, D. V. Klinov	Could an enzyme keep its activity upon electrospinning?
A.V.Birdibekova, M.V.Shinkareva, A.A.Frolova, B.S. Shavkuta, S.A.Minaeva, T.S. Demina, E.V. Istranova,T.A. Akopova,P.S. Timashev	Bilayer polylactide/collagenfilms: low-temperature plasma treatment
M. V. Chukalina, V. V. Arlazarov, D. P. Nikolaev	Problems of semi-automatic analysis of tomographic images: analysis of reasons and ways of solution
A. Y. Chushnikov, M. I. Ibragimova, V. Yu Petukhov	Investigation of the mechanism of iron metabolism disorders in elite professional athletes by EPR spectroscopy
M.O. Dabizha, M.M. Slotvitsky, V.A.	Development of a method for assessing the functionality of the heart with
I SVeelaya, K.I. Agladze	Iong-term storage Biomechanical aspects of digital technology of personified planning of
I. N. Dashevskiy	dental restorations on implants
S.A. Demin, V.A. Yunusov, O.Y. Panischev	Development of statistical methods for the diagnosis of neurological diseases based on multi-parameter analysis of brain activity
E.N. Denisova, G.V. Kozmin, Yu.A. Kurachenko	Internal irradiation of the rodent digestive tract with "hot" radioactive
V.A. Fedulova, A.V. Yuzhakov	Study of laser radiation effect on the cornea of the eye by speckle interferometry
E.N. Gasanova, N.E. Gorbatova , S.A. Zolotov, A.V. Bryantsev, I.V. Batunina, A.A. Sirotkin, G.P. Kuzmin, O.V. Tikhonevich	Selective laser photo-destruction by means of green laser radiation. A promising method for treatment of capillary skin angiodysplasia and telangiectasia in children
E.V. Gubarkova, A.A. Sovetsky, A.A. Moiseev, D.A. Vorontsov, A.A. Plekhanov, M.A. Sirotkina, E.B. Kiseleva, S.S. Kuznetsov, A.Y. Vorontsov, V.Y. Zaitsev, N.D. Gladkova	Cross-polarization OCT and OCT-elastography for evaluation of the breast tissue microstruc-ture
A. V. Ivanova, A. A. Nikitin, A.N. Gabashvili, M.A. Abakumov	Visualization macromolecules by method of transmition electron microscopy of high resolution combined with an element analysis
E.V. Orlova, L.M. Smirnova, L.N. Kayumova, V.D. Rumyantseva, I.P. Shilov	Pharmaceutical composition based on itterbium porphyrin complex for early diagnostics of malignant melanocytic skin lesions
D. G. Lapitan, D. A. Rogatkin, V. V. Makarov	Device for non-invasive complex assessment of central and peripheral hemodynamics pa-rameters
I.V. Lunev, A.V. Birdibekova, T.N. Popyrina, M.S. Piskarev, T.S. Demina, A.B. Gilman, T.A. Akopova	Effect of thermal and plasma treatment on physico-chemical proprties of films made of chitosan and its copolymer with oligolactide and collagen
A. O. Mariyanats, E. N. Antonov, V. K. Popov	Kinetics of levofloxacin release from polymeric matrixes to physiological media
S.S. Miheev, A.B. Sotsky, M.M. Nazarov, L.I. Sotskaya	Model of the waveguide probe for terahertz skin spectroscopy
M.A. Orlov, N.A. Zakharov	Calcium carbonate morphotrophy modifications in crystallization from solutions and bio-mineralization
Y. L. Orlov, I. A. Shaderkin, G. S. Lebedev	Telemedicine technologies for health care
O.Y. Panischev, S.A. Demin, S.N. Panischeva, R.R. Latypov	Frequency-phase synchronization in eeg signals at cognitive activity

A.R. Putintseva, A.A. Novikov	Study of the effectiveness of ultrasound treatment for urological catheter rehabilitation
A. V. Sochilina, A. G. Savelyev, A. N. Generalova, E. V. Khaydukov	Photocrosslinkable hydrogels based on modified hyaluronic acid as matrix material for pro-longed drug release
M.V. Shinkareva, A.V. Birdibekova, A.S. Kuryanova, A.A. Dulyasova, T.V. Chernenok, E.D. Minaeva, S.A. Minaeva, N.V. Minaev, T.A. Akopova, P.S. Timashev	Fabrication of polycaprolactone materials and their modificated via physical methods
S. A. Shuteev, V. V. Rozanov, I. V. Matveychuk	Model of the temperature field of bone tissues during waterjet cutting
M. A. Syachina, E. N. Antonov, V. K. Popov	Study of gentamycin release kinetics from formed SKF by the method of polymer matrixes
A.A. Titaeva, E.A. Belousova, S.G. Tereschenko, L.G. Lapaeva, E.V. Velikanov	Diagnostic of changes of gastric and colon mucosa at patients with acromegaly
A.A. Titaeva, S.G. Tereschenko, A.V. Rubolovlev, L.G. Lapaeva, E.V. Velikanov	Optimization of planning sessions of brachytherapy based on the data of biospectrophotometry
Titaeva A. A., Semenov D. U., Lobakov A. I., Shubin V. K., Bogomazov U. K., Morohotov V. A., Zaharov U. I., Tereshenko S. G., Lapaeva L. G., Bogdanov A. P.	Experience of application of photodynamic therapy in ulcer proctitis in operated patients as a preparatory stage for reconstructive operation
. O. Ukhanova, N. R. Krutyak, D. A. Spassky	Influence of temperature on the optical and luminescent properties of crysyals based on GAGG:Ce
E.V. Ushakova, I.O. Slavnetskov, D.A. Zimnyakov	Low-coherence reflectometry of highly porous bioresorbable matrices synthesized using pol-ylactide foaming in sub-/supercritical carbon dioxide

## Regenerative technologies, tissue engineering

A.I. Aleksandrov, A.A. Mishin, V.G. Shevchenko, T.S. Demina, T.A. Akopoya	Hybrid biocompatible nanocomposite based on chitozan
N.A. Basalova, G.D. Sagaradze, O.A.	Extracellular vesicles as key mediators of antifibrotic MSC effects in vitro
Grigorieva, K.Yu. Kulebyakin, I.L. Zaitsev,	and in vivo
T.S. Demina, N.V. Minaev, E.D. Minaeva,	Microparticles for fabrication of 3D structures via surface-selective laser
T.A. Akopova, P.S. Timashev	sintering
E.R. Gafarova, E.A. Ivukina, A.E. Lazhko,	Comparative analysis of the effectiveness of the methods of
A.S. Kuryanova, B.S. Capomba, I.A.	decellularization in SCCO2 medium
E.S. Novoseletskaya, G.D. Sagaradze, N.A.	Soluble components of extracellular matrix in regulation of mesenchymal
Basalova, O.A. Grigorieva,	stem cells differ-ention in in vitro
S.K. Suleimanov, G.K. Vladimirov, V.S.	Luminol-dependent chemiluminescence revealed neurtophil activation in
Presnyakova, E.V. Mikhalchik,	blood samples exposed to pericardial decellularized scaffolds
E.V.Sysolyatina, R.K.Chailakhyan,	
A.G.Grosheva, Yu.V.Gerasimov,	
N.N.Vorobieva,	Effect of cold placma to proliferation and adhesion of multipotent stremal
S.A.Ermolaeva, M.V.Kazakova,	Effect of cold plasma to promeration and adhesion of multipotent stromation
Yu.S.Akishev,	cens to ussue en-gineering construction
A.V.Petryakov, K.V.Sidoruk,	
B.F.Burdukovskii, P.S.Timashev	

S.V. Akulinichev	Study of combined photodynamic and radiation therapy
S. V. Akulinichev, S. I. Derzhavin, V. I. Derzhiev, D. A. Kokontsev, D. N. Mamonov, V. V. Martynova, D. A. Mashkovsky, S. V. Olkhovka	Stand for combined cell irradiation
Basova M.A., Medzhidov I.M., Denisova E.N., Kozmin G.V., Kurachenko Yu.A.	"Activity-dose rate" conversion factors for radioiodines in cattle irradiation

V.Yu.Babikov, A.Yu.Fisenko, E.V.Barysheva, V.V.Udut, I.G.Frolova, W.Yu.Ussov	Use of fusion of images and quantification of contrast-enhanced MRI and 99MTc-MIBI spect in life prognosis of lung cancer patients
S.Z. Bagova, A.V. Vertinskiy, E.S. Sukhikh, L.G. Sukhikh	The role of 3D estimates for vmat plans
V. I. Derzhiev, S. V. Akulinichev, A. A. Antonovich, I. P. Zibrov, S. V. Olkhovka, V. P. Filonenko	Method for manufacturing ytterbium sources for brachytherapy
D.A. Kokontsev, A.A.Kokontsev, A.Yu.Smyslov	Application of a radiochromic film and gamma-analysis method for estimating the error of the algorithm for calculation the dose distribution during irradiation of irregular contours in superficial x-ray therapy
A.A.Kokontsev, V.N.Vasiliev, A.Yu.Smyslov, E.L.Slobina	Problems of the stereotactic vmat patient-specific treatment plan verification
A.Yu.Kovalenko, S.P.Yaroshevskiy, M.I.Bahmetyeva, W.Yu.Ussov	Dynamic MRI with polyacetate paramagnetic complexes of Gd in quantification of permeability of blood-myocardium barrier in inflammatory and ischemic damage
Krivorotko M.S., Nedorezov V.G., Rudnev N.V., Zuev S.V., Podurets K.M.	The method of neutron activation and x-ray-fluorescent analysis research the mineral composition of bone tissues of bone tissue taken from the iliac wing
A.A. Larenkov, M.G. Rakhimov, K.A. Lunyova, M.V. Zhukova, A.Ya. Maruk, A.E. Machulkin	Pharmacokinetic properties of gallium-68 radiopharmaceuticals based on folic acid: im-provement using his-glu tag
V.N. Morozov, A.N. Moiseev, I.A. Kholomov, V.I. Zverev	Investigation of dosimetric characteristics of NG-24 neutron generator for therapeutic usage
N.D. Pilia, E.A. Priakhin	Evaluation of effects of factors associated with a low-temperature plasma at a high-current electric explosion of conductors in vacuum on germination of lettuce (lactuca sativa) seeds
V.A. Platonova, S.N. Mamaeva, S.R. Antonov, M.N. Semenova, R.Z. Alekseev, G.V. Maximov	The study of the morphology of red blood cells under the influence of ultra- low temperatures during radiation therapy using optical, atomic force and electron microscopy
P. D. Remizov, M. V. Zheltonozhskaya, A. P. Chernyaev, D. A. Yusyuk	Research in producing of the ZR-89 medical isotope at electron accelerators
S.S. Rusetskiy, V.N. Vasiliev, A.Yu.Smyslov	Features of the MONTE-CARLO simulation of linac electron beams shaped by a multileaf collimator
V. M. Skorkin, S. V. Akulinichev, Yu. K. Gavrilov, D. A. Kokontsev, I. A. Yakovlev	Radiation monitoring of the absorbed dose of proton pulsed beam
Soroko S.S., Brilkina A.A., Balalaeva I.V., Vodeneev V.A., Shilyagina N.Yu.	Estimation of the dynamics of the content of hydrogen peroxide in tumor cells using hyper fluorescent protein sensor under the action of beta radiation
V. N. Vasiliev, A. Yu. Smyslov	Frequency chacateristics of the TrueBeam dose distribution
I. A. Yakovlev, S. V. Akulinichev, V.N. Vasiliev, D.A. Kokontsev, V. V. Martynova	Processing of radiochromic films in experiments on irradiation of cell cultures