

**3rd International Symposium on  
“Physics, Engineering and Technologies for Biomedicine”**

**POSTER SESSION**

**October 16, Tuesday**

*The Intourist Kolomenskoe,  
Kashyrskoye shosse, 39b, Moscow*

**Section 1.**

***Nuclear medicine, radiodiagnosics and radiotherapy***

**Chair: A.A. Postnov**

- P1.1 **COMBINATION OF PET TRACERS IN BRAIN TUMOR STUDIES**  
*A.V.Agafonova, I.N.Pronin, A.A.Postnov*
- P1.2 **DEVELOPMENT OF CONE-BEAM 4DCT FOR PROTON THERAPY OF MOVING TUMORS IN SITTING POSITION: FIRST EXPERIMENTAL RESULTS**  
*M.A. Belikhin, A.A. Pryanichnikov, A.E. Shemyakov, A.I. Shestopalov*
- P1.3 **INTERACTIVE SOFTWARE FOR IRRADIATION GUR-120 FACILITY**  
*E.N. Denisova, A.S. Snegiryov, G.V. Kozmin, Yu.A. Kurachenko*
- P1.4 **PRECISION MODELING OF THYROID LESIONS IN RADIATION ACCIDENTS**  
*E.N. Denisova, A.S. Snegiryov, G.V. Kozmin, Yu.A. Kurachenko*
- P1.5 **COMBINED ACTION OF CHEMICALS AND IONIZING RADIATION ON CELL SURVIVAL**  
*A.N. Filimonova, Yu.N. Anokhin*
- P1.6 **EVALUATION OF <sup>99</sup>Mo AND <sup>177</sup>Lu FOR NUCLEAR MEDICINE IN LOW POWER REACTORS**  
*E. Gubanov, A. Maksimushkina, H. Nepovimnykh, T. Osipova, S. Shkavrov, N. Usov, N. Epshtein*
- P1.7 **ETCH TRACK DETECTOR METHODS FOR THE MEASUREMENTS OF SECONDARY COSMIC RADIATION DOSES ONBOARD THE INTERNATIONAL SPACE STATION**  
*K.O. Inozemtsev, V.V. Kushin, S. Kodaira, T. Kusumoto, A. Strádi, J. Szabó, I. Ambrožová, R.V. Toloček, V.A. Shurshakov*
- P1.8 **THE RATIO BETWEEN ABSORBED DOSE, KERMA AND IONIZATION KERMA FOR SMALL-SIZE PHOTON BEAM**  
*M. Kolyvanova, G. Galjautdinova, V. Klimanov*
- P1.9 **SYNERGISM OF COMBINED ACTION OF ULTRAVIOLET LIGHT AND IONIZING RADIATION**  
*L.N. Komarova*
- P1.10 **MICRODISTRIBUTION OF DEPOSITED DOSE IN BIOLOGICAL TISSUE IN THE PRESENCE OF GOLD AND GADOLINIUM NANOPARTICLES UNDER PHOTON BEAM IRRADIATION**  
*Konobeev I.A., Sheino I.N.*

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- P1.11 **CREATION OF MEDICAL DATABASE  
FOR DECISION SUPPORT SISTEM FOR MRI DIAGNOSIS  
OF ONCOLOGICAL DISEASES OF THE HUMAN BRAIN**  
*V. S. Kozlov*
- P1.12 **THE EFFECT OF SEMAX AND SELANK  
ON HEMISPHERIC BRAIN ASYMMETRY IN RATS  
WITN DIFFERENT MOTOR LAT-ERALIZATION PROFILE  
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NUCLEUS DE-STRUCTION**  
*I. Latynova, M. Fedorova, Zh. Vishnyakova, S. Mozerov*
- P1.13 **FUNCTIONAL MAGNETIC RESONANCE SPECTROSCOPY STUDY  
OF ASPARTATE IN ACTIVATED CORTEX AT 3T**  
*A. Manzhurtsev, P. Menshchikov, O. Vasiukova,  
M. Ublinskiy, N.Semenova, T. Akhadov*
- P1.14 **FUNCTIONAL MAGNETIC RESONANCE SPECTROSCOPY  
OF GLUTAMATE AT 3T**  
*A. Manzhurtsev, P. Menshchikov, M. Ublinskiy,  
O. Vasiukova, N.Semenova, O. Bozhko, T. Akhadov*
- P1.15 **MONTE CARLO MODULATION OF LEKSELL GAMMA KNIFE PERFEXION**  
*T. Medjadj, A. Ksenofontov, A. Dalechina*
- P1.16 **RESTING-STATE FMRI: PREOPERATIVE MAPPING IN PATIENTS  
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*T. Melnikova-Pitskhelauri, M.Sharaev, A.Smirnov,  
E.Pogosbekyan, E.Burnaev, L.Fadeeva, I.Pronin, D.Pitskhelauri*
- P1.17 **31P-MR SPECTROSCOPY FOR BRAIN TUMORS PH-METRY**  
*M. Mertsalova, L. Fadeeva, D.Piashina, A. Postnov, I. Pronin*
- P1.18 **MONTE-CARLO CALCULATION OF DOSE ENHANCEMENT FACTOR IN  
THE PARTICLE OF DNA LIQUID-CRYSTALLINE DISPERSION  
IN PRENCE OF GOLD NANOPARTICLES**  
*K.V. Morozov, V.N. Morozov, A.V. Belousov,  
G.A. Krusanov, M.A. Kolyvanova, A.A. Shtil*
- P1.19 **FUNCTIONALIZATION OF POLYELECTROLYTE MICROCAP-SULES  
FOR SMART TARGETED DELIVERY OF THERANOSTIC AGENTS**  
*Galina Nifontova, Maria Baryshnikova, Alyona Sukhanova*
- P1.20 **BREMSSTRAHLUNG OF HIGH-CURRENT ELECTRON ACCEL-ERATOR  
FOR RADIOISOTOPE PRODUCTION**  
*H.A. Onischuk, Yu.A. Kurachenko*
- P1.21 **NEUTRON BEAMS QUALITY PERFORMANCE CRITERIA  
FOR NEUTRON CAPTURE THERAPY**  
*H.A. Onischuk, Yu.A. Kurachenko, Eu.S. Matusevich*
- P1.22 **EX VIVO BIODISTRIBUTION  
OF GALLIUM-68-LABELED POROUS SILICON NANOPARTICLES**  
*V.M. Petriev, V.K. Tishchenko, A.A. Mikhailovskaya,  
O.A. Smoryzanova A.V.Kabashin, I.N. Zavestovskaya*

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- P1.23 **BIODISTRIBUTION EX VIVO OF  $^{213}\text{Bi}$ -KHEDP – A PROMISING BONE-SEEKING AGENT FOR TARGETED ALPHA THERAPY**  
*V.M. Petriev, V.K. Tishchenko, A.A. Mikhailovskaya, O.A. Smoryzanova*
- P1.24 **THE INFLUENCE OF WHOLE BODY RADIATION EXPOSURE ON THE BIO-DISTRIBUTION OF MONOPOTASSIUM SALT OF 1-HYDROXYETHYLIDENE DIPHOSPHONIC ACID LABELED WITH RHENIUM-188**  
*V.M. Petriev, V.K. Tishchenko, O.A. Smoryzanova,  
E.D. Stepchenkova, I.N. Zavestovskaya*
- P1.25 **CYTOGENETIC EFFECTS IN LETTUCE SEEDS AFTER EXPOSURE TO ACCELERATED GELIUM IONS**  
*N.G. Platova, R.V. Tolochek*
- P1.26 **NEW MODIFICATION OF PROTOM PATIENT POSITIONING AND IMMOBILIZATION SYSTEM FOR PROTON THERAPY IN LYING POSITION**  
*A.A. Pryanichnikov, V.E. Balakin, M.A. Belikhin, A.E. Shemyakov*
- P1.27 **SYNTHETIC MAGNETIC RESONANCE IMAGING IN NEU-ROVIZUALIZATION**  
*A. Shevchenko, L. Fadeeva, I. Pronin, N. Zakharova*
- P1.28 **PLANNING PROTON THERAPY ON CONE-BEAM CT IMAGES**  
*A. Solovev, A. Chernukha, O. Lepilina, R. Shersnev,  
O. Golovanova, A. Shestopalov, S. Ulyanenko*
- P1.29 **DOSIMETRY OF PROTON SCANNING BEAM WITH FBX DOSI-METRIC SYSTEM**  
*Troshina M.V., Potetnya V.I., Koryakina E.V.,  
Baykuzina R.M., Koryakin S.N., Ulyanenko S.E.*
- P1.30 **DOSIMETRY SUPPORT OF NUCLEAR MEDICINE**  
*A. A. Trukhin, P.O. Rumyantsev, V.G. Nikitaev*
- P1.31 **3D MRSI IN DIAGNOSIS OF BRAIN TUMOURS**  
*A. Tyurina, A. Podoprigora, L. Fadeeva, V. Kornienko, I. Pronin*
- P1.32 **SPECIFIC ABSORPTION RATE OF ORIENTED ASSEMBLES OF ELONGATED CLUSTERS OF MAGNETIC NANOPARTICLES**  
*Gubanova E.M., Epshtein N.B., Belyaeva G.A. Usov N.A.*

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## Section 2. High technology medicine

Chair: *Semenov I.Yu.*

- P2.1 **MORPHOLOGICAL CHANGES IN THE WALLS OF THE ARTERIES OF THE ELASTIC AND MUSCULAR-ELASTIC TYPE, ASSOCIATED WITH AGE AND CONCOMITANT PATHOLOGICAL CONDITIONS**  
*N. Averkin, M. Fedorova, V. Brosalov, S. Mozerov, A. Stolyarov, E. Kharitonov, O. Zhurkina*
- P2.2 **THE STIMULATING EFFECT OF LOW-INTENSITY LED IRRADIATION ON THE IN VITRO MODEL OF PARKINSON'S DISEASE**  
*Bikmulina P.Y., Butnaru D.V., Shpichka A.I., Timashev P.S., Kosheleva N.V., Zurina I.M., Semenova M.L., Gorkun A.A., Maximchik P.V., Yusupov V.I., Gogvadze V.G., Rochev Y.A.*
- P2.3 **CLONING AND EXPRESSION OF TBF GENE AS RECOMBINANT VACCINE CANDIDATE AGAINST VIBRIO CHOLERAEE**  
*Y.G. Bazarnova, T.A. Bolotnikova, E.B.Aronova*
- P2.4 **FORECASTING OF LONE ATRIAL FIBRILLATION PAROXYSMS DURING PREGNANCY**  
*N. Dyatlov, F. Rakhmatullof, M. Mitrokhin, I. Moiseeva, L. Burmistrova, A. Kotlyarov*
- P2.5 **RESEARCH OF SEGMENTATION METHODS FOR HIGHLIGHTING POINTS AND GLOBULES ON IMAGES OF SKIN NEOPLASMS**  
*T. Ezhov, V. Nikitaev, O. Tamrazova, A. Pronichev, V. Sergeev*
- P2.6 **VOCAL FOLD SCARRING AND REPAIR THROUGH THE EYES OF ATOMIC FORCE MICROSCOPY**  
*Anastasiya Frolova, Mikhail Svistushkin, Svetlana Kotova, Valery Svistushkin, Anatoly Shekhter, Peter Timashev*
- P2.7 **DECREASE OF GABA AND NAA IN THE HUMAN VISUAL CORTEX DURING VIDEOSTIMULATION. 1H MRS STUDY**  
*A. Iakovlev, A. Manzhurtsev, P. Menshchikov, T. Akhadov, N. A. Semenova*
- P2.8 **INVESTIGATION OF NEURAL SYSTEM POSSIBILITIES IN RECOGNITION OF MELANOMA**  
*S. Kobleev, V. Nikitaev, O. Tamrazova, A. Pronichev, V. Sergeev, E. Polyakov*
- P2.9 **THE PREVALENCE OF ANTIBIOTIC-RESISTANT BACTERIAL CARRIAGE AMONG CHILDREN OF EARLY CHILDHOOD, PRE-SCHOOL AGE AND SCHOOL-AGE CHILDREN**  
*S. Kolesnikova, E. Tulyakova, E. Burmistrova and O. Berseneva*
- P2.10 **SYSTEM FOR RECOGNITION OF PIGMENT NETWORK LINES ON DERMATOSCOPIC IMAGES OF MELANOCYTIC SKIN LESIONS**  
*A. Kozyreva, V. Nikitaev, O. Tamrazova, A. Pronichev, V. Sergeev*
- P2.11 **METABOLIC CONCENTRATIONS IN ACUTE AND LONG-TERM SEVERE TBI. 1H MRS STUDY**  
*P. Menshchikov, M. Ublinskiy, T. Akhadov, N.A. Semenova*

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- P2.12 **QUANTIFICATION OF CEREBRAL WHITE AND GRAY MATTER ASPARTATE CONCENTRATIONS IN VIVO**  
*P. Menshchikov, A. Manzhurtsev, T. Akhadov, N.A. Semenova*
- P2.13 **ROBUST SEGMENTATION TOOL FOR IN VIVO SINGLE VOXEL AND 2D 1H MRS OF HUMAN BRAIN**  
*P. Menshchikov, M. Melnikov, T. Akhadov, N.A. Semenova*
- P2.14 **SELECTION OF OPTIMAL ANTIBODY FOR DETECTION OF HEPATITIS B SURFACE ANTIGEN VIA IMMUNOREAGENT SCREENING WITH SPECTRAL CORRELATION INTERFEROME-TRY**  
*D.O. Novichikhin, A.V. Pushkarev, S.L. Znoyko, V. A. Bragina, A.V. Orlov, P.I. Nikitin*
- P2.15 **THE CONDITION OF THE CORONARY RESERVE IN PATIENTS WITH ASYMPTOMATIC ATRIAL FIBRILLATION WITH SUB-CLINICAL THYROTOXICOSIS**  
*R. Rakhmatullov, A. Rakhmatullov, I. Moiseeva, A. Kotlyarov*
- P2.16 **THE INTELLIGENT SYSTEM OF RECOGNITION OF THE NET-WORK STRUCTURE OF MELANOMA**  
*A.Skripnik, V Nikitaev, O Tamrazova, A. Pronichev, V Yu Sergeev, S. Zaytsev, V. Dmitrieva, E. Druzhinina*
- P2.17 **BIONIC HEART: TRANSLATION PRINCIPLES**  
*Dmitry Telyshev, Maxim Denisov, Anna Satyukova, Tatyana Le*
- P2.18 **MALFUNCTION OF CEREBELLAR CONNECTIVITY IN PATIENTS WITH MILD TBI. RSFMRI STUDY**  
*M.V. Ublinskiy, P.E. Menshchikov, A.V. Manzhurtsev, N.A. Semenova, T.A. Akhadov*
- P2.19 **MICROSTRUCTURE AND METABOLISM ANALYSIS IN CHILDREN WITH SEVERE TBI**  
*M.V. Ublinskiy, P.E. Menshchikov, A.V. Manzhurtsev, N.A. Semenova, T.A. Akhadov*
- P2.20 **CEREBRAL MICROSTRUCTURE DISORDERS IN THE ACUTE PHASE OF MILD TRAUMATIC BRAIN INJURY**  
*O.R. Vasiukova, A.V. Manzhurtsev, P.E. Menshchikov, M.V. Ublinskiy, T.A. Akhadov, N.A. Semenova*
- P2.21 **THE RATING FACTORS IN THE PROGRESSION OF ACUTE PANCREATITIS**  
*Vlasov A.P., Trofimov V.A., Anaskin S.G., Malakhova O.S., Morozova M.M., Muratova T.A., Vasiliev V.V., Vlasova T.I., I.D. Korniletskiy*
- P2.22 **DEVELOPMENT OF A SYSTEM OF SUPPORTING THE ADOPTION OF MEDICAL DECISIONS FOR THE DIAGNOSTICS OF THE DEFORMATIONS OF THE GASTROINTESTINAL TRACT**  
*E. Vorobyeva, V. Nikitaev, V. Selchuk, A. Pronichev, E. Polyakov*
- P2.23 **COMBINATION OF CRYOGENIC DIAGNOSTICS AND TREATMENT OF ONCOLOGICAL DISEASES**  
*Vorontsov V. A.*

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## *Section 3* *Biomedicine technology*

*Chair: V.Yu. Timoshenko*

- P3.1 ***INFLUENCE OF NANOPARTICLES OF POROUS SILICON AND GOLD ON FREE-RADICAL HOMEOSTASIS OF THE SKIN OF RATS***  
*Alykova A.F., Lomteva N.A., Kondratenko E.I., Timoshenko V.Yu., Kasimova S.K., Alykova O.M., Zvestovskaya I.N.*
- P3.2 ***PREPARATION NANOPARTICLES AND FILMS SI AND STUDY OF THEIR PROPERTIES BY SPM AND TEM***  
*S. Antonenko, I. Derzhavin, M. Klimentov, O. Uvarov, A. Fronya*
- P3.3 ***IN VIVO ANALYSIS OF QUANTUM DOTS FLUORESCENCE SIGNAL INTENSITY AFTER SUBCUTANEOUS INJECTION***  
*Svetlana Bozrova, Maria Baryshnikova, Zinaida Sokolova, Amir Tu-khvatullin, Denis Logunov, Igor Nabiev, Alyona Sukhanova*
- P3.4 ***COLD CATHODES BASED ON CARBON NANOTUBES FOR THE X-RAY TUBE USED IN RADIATION THERAPY AND DIAGNOSTICS***  
*A. Bratsuk, A. Simonov*
- P3.5 ***CALCULATION OF THE BINDING ENERGY OF IMPLANT COATING COMPONENTS WITH A SUBSTRATE BY QUANTUM CHEMISTRY METHODS***  
*I. Dashevskiy, A. Balueva, P. Todebush*
- P3.6 ***THE DATABASE FOR THE AUTOMATED SYSTEM OF DIAGNOSIS OF A MELANOMA***  
*E. Druzhinina, V Nikitaev, O Tamrazova, A Pronichev, V Sergeev, E. Polyakov*
- P3.7 ***FILTERING METHODS OF IMAGES OF SKIN IMPROVEMENTS BASED ON SINGLE-DIMENSIONAL MASKS***  
*E.Guguchkin, V. Nikitaev, O. Tamrazova, A. Pronichev, V. Sergeev, E. Druzhinina*
- P3.8 ***STUDY OF COMPRESSION ALGORITHMS IMAGES OF CYTOLOGICAL PREPARATIONS***  
*K. Hamadi, V. Nikitaev, O. Nagornov, A. Pronichev, E. Polyakov, S. Zaytsev, V. Dmitrieva, Yu. Ivanov, I. Shabalova, T. Djangirova*
- P3.9 ***DEVELOPMENT OF MICROSCOPE SOFTWARE MODULE FOR SCANNING OF PRODUCTS WITH AUTOMATIC FOCUSING***  
*E. Ivanov, V. Nikitaev, A. Pronichev, E. Polyakov, S. Zaytsev*
- P3.10 ***BIOPHYSICAL METHOD OF STRUCTURAL RESONANCE THERAPY IN TREATMENT OF ACUTE PANCREATITIS***  
*Yu.V. Ivanov, S.G. Anaskin, I.D. Korniletskiy, D.Yu. Agibalov*
- P3.11 ***THE AUTOMATIC SYSTEM OF THE ANALYSIS OF TISSUE SPECIMENS IN INTRAOPERATION DIAGNOSIS OF NODAL FORMATIONS OF THE THYROID GLAND***  
*Yu.V. Ivanov, S.G. Anaskin, I.D. Korniletskiy, D.Yu. Agibalov*
- P3.12 ***BREATH ACETONE DETECTION WITH THE NEW COLORIMETRIC SENSOR: INTERPRETATION OF THE PILOT STUDY RESULTS***  
*A. Ivanova, M. Dmitrienko, E. Kolomina*

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- P3.13 **ENGINEERING OF MATRIX-STRUCTURED CALCIUM CAR-BONATE MICROPARTICLES WITH DESIRED DISPERSION CHARACTERISTICS**  
*Daria Kalenichenko, Galina Nifontova, Alyona Sukhanova, Igor Nabiev*
- P3.14 **BIOMIMETIC NANOSTRUCTURES: MONOLAYERS, FILMS AND VESICLES BASED ON COMPLEXES OF AMPHIPHILIC COM-POUNDS, POLYMERS AND NANOPARTICLES**  
*V.P. Kim, K.V. Potapenkov, G.B. Khomutov, A.V. Sybachin, A.A. Yaroslavov, I.V. Taranov, V.A. Cherepenin, Y.V. Gulyaev*
- P3.15 **DEVELOPMENT OF FORMATION SYSTEM FOR PANORA-MENT IMAGES FOR CYTOLOGICAL ANALYSIS**  
*A. Koltsov, V. Nikitaev, A. Pronichev, E. Polyakov*
- P3.16 **MOBILE MONITORING SYSTEM DETECTING THE PRECURSORS OF CARDIOVASCULAR DISEASES**  
*I. Kozlovskaya, O. Bulkina, V. Lopukhova, A. Shubina, Yu. Karpov, E. Lukoshkova, V. Ermishkin, A. Bogomolov, V. Nevezhin*
- P3.17 **THREE STEPS FOR THE DETERMINATION OF FLAVO-NOID CONTENTS AS AN APPROACH TO STANDARDIZA-TION OF STEVIA LEAVES FOR BIO-MEDICINE**  
*E. Kurdyukov, E. Semenova, I. Moiseeva, S. Kolesnikova, A. Kuznetsova, O. Rodina, Ya. Moiseev*
- P3.18 **RESEARCH OF BIOMECHANICAL PROPERTIES OF TISSUE SPHEROIDS BY USING OF LASER MICRODISSECTION AND METHODS OF TENSIOMETRY**  
*A. Kurishev*
- P3.19 **CONJUGATION OF NOVEL 4,5,9-TRI-SUBSTITUTED ACRIDINE DERIVATIVES AND QUANTUM DOTS**  
*P. Linkov, K. Vokhmintcev, M. Cochard, B. Brassart, P. Samokhvalov, J. Sapi, and I. Nabiev*
- P3.20 **STRENGTH CHARACTERISTICS AND TRIBOLOGICAL PROP-ERTIES OF ISOTROPIC PYROLYTIC CARBON FRICTION PAIR IN TOTAL HIP RE-PLACEMENT.**  
*A. Mitroshin, S. Mozerov, A. Kibitkin, M. Ksenofontov, D. Kosmynin*
- P3.21 **OPTIMIZATION OF THE PHOTONIC CRYSTAL CHIP ACTIVATION PROCE-DURE FOR ULTRASENSITIVE OPTICAL BIOSENSING**  
*I.O. Petrova, I. Nabiev, V.N. Konopsky, A. Sukhanova*
- P3.22 **A CONTROL METHOD FOR ROTARY BLOOD PUMPS AS A BIVENTRICULAR ASSIST DEVICE UTILIZING PUMPING STATE IDENTIFICATION**  
*D. Petukhov*
- P3.23 **NANOCOMPOSITE MAGNETIC LIPOSOMES FOR TARGETED DELIVERY AND CONTROLLED RELEASE OF DRUGS: EFFECTS OF APPLIED ELEC-TRIC AND MAGNETIC FIELDS**  
*K.V. Potapenkov, , V.P. Kim, G.B. Khomutov, A.V. Sybachin, A.A. Yaroslavov, I.V. Taranov, V.A. Cherepenin, Y.V. Gulyaev*
- P3.24 **OPTICAL METHODS IN THE DIAGNOSTICS OF FIBROSIS**  
*I. Raznitsyna, Yu. Chursinova, D. Kulikov*

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- P3.25 **EXCITONIC-TO-PLASMONIC TRANSITION IN CuInS<sub>2</sub> NANO-CRYSTALS**  
*P. Samokhvalov, P. Linkov and I. Nabiev*
- P3.26 **QUALITY CONTROL OF DITERPENOID GLUCOSIDES AS A MAIN BIOACTIVE MARKERS OF STEVIA REBAUDIANA BERTONI LEAVES**  
*E. Semenova, E. Kurdyukov, N. Glebova, A. Kuznetsova, I. Moiseeva, N. Gavrilova, S. Kolesnikova*
- P3.27 **PARTICLES FROM STAR-SHAPED POLYLACTIDES AS A TOOL FOR PROLONGED PROTEIN DRUG RELEASE**  
*Shavkuta B.S., Shpichka A.I., Bardakova K.N., Kostjuk S.V., Timashev P.S.*
- P3.28 **ANALYSIS OF fMRI DATA IN CONN AND ICA**  
*K. Shemarova*
- P3.29 **ACOUSTOGRAVIMETRIC SENSORS OF ACETONE VAPOR IN EXHALED AIR**  
*V. Simonov*
- P3.30 **PERSPECTIVES FOR USING QUANTUM TECHNOLOGIES IN BIOMEDICINE**  
*P.A. Tarasov, E.A. Isaev and G.V. Detkov*
- P3.31 **INTERACTIVE SEGMENTATION OF SKIN NEOPLASM IMAGES FOR HAIRS DETECTION**  
*I. Trefilov, V. Nikitaev, O. Tamrazova, A. Pronichev, V. Sergeev, E. Druzhinina*