

- 1. Dynamic Modelling of CFTR Receptor Maturation in Cystic Fibrosis: What Controls the Receptor Concentration in the Plasma Membrane?** D. Astapenko^{*1,2}, H.M. Botelho³, A. Kolodkin^{2,4,5,6,7}, H.V. Westerhoff^{3,6,7,8}, M.D. Amaral³. ¹*Novosibirsk State University, Novosibirsk, Russia;* ²*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ³*Biosystems and Integrative Sciences Institute (BioISI) of the University of Lisbon;* ⁴*Infrastructure for Systems Biology Europe (ISBE);* ⁵*Luxembourg Centre for Systems Biomedicine, University of Luxembourg, Luxembourg;* ⁶*Molecular Cell Physiology, VU University Amsterdam, the Netherlands;* ⁷*Synthetic Systems Biology, SILS, University of Amsterdam, the Netherlands;* ⁸*Manchester Centre for Integrative Systems Biology, UK.* *e-mail: vamp0856@gmail.com
- 2. Association rs189037 in the ATM Gene with Bronchial Asthma Taking into Account Environmental Factors.** N. Babushkina*, A. Postrigan, A. Kucher. *Research Institute of Medical Genetics, Tomsk National Research Medical Center RAS, Tomsk, Russia.* *e-mail: nad.babushkina@medgenetics.ru
- 3. Model Melanocortin Obesity: Immunohistochemical Examination of Cyclooxygenase-2 and Macrophages in the Kidney of Ay Mice.** N.V. Baginskaya*, N.S. Logvinenko. *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* *e-mail: bagin@bionet.nsc.ru
- 4. Ultrastructural Organization of Hepatocytes in Distant Tumor Growth.** S. Bakhbaeva*, N. Bgatova, Yu. Taskaeva, V. Makarova, Yu. Borodin. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* *e-mail: saule0577@mail.ru
- 5. Regenerative Technologies in the Treatment of Knee Osteoarthritis.** N. Bانشchikova^{1*}, V. Omelchenko¹, E. Letjagina¹, A. Akimova¹, O. Poveshchenko¹, A. Lykov¹, M. Surovtseva¹, A. Evsyukov¹, A. Yezhov¹, A. Zobnin¹, M. Korolev¹. ¹*Institute of Clinical and Experimental Lymphology – a branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* *e-mail: nadib1990@mail.ru
- 6. IL4 (rs 2243250) Gene Polymorphism Depending on the Clinical Features Psoriatic Disease.** A. Barilo*, S. Smirnova, M. Smolnikova. *Scientific Research Institute of Medical Problems of the North, Federal Research Center «Krasnoyarsk Science Center» of the Siberian Branch of the Russian Academy of Sciences, Krasnoyarsk, Russia.* *e-mail: anntomsk@yandex.ru
- 7. Possible Mechanisms of Therapeutic Effects of Mesenchymal Stromal Cells Conditioned Medium on the Model of Cryptorchidism in Rats.** N.A. Basalova^{1*}, G.D Sagaradze^{1,2}, E.S. Kuznetsova¹, V.I. Kirpatovsky^{1,3}, D.A. Ohobotov^{1,2}, A.A. Kamalov^{1,2}, A.Yu. Efimenko^{1,2}. ¹*Institute for Regenerative Medicine, Medical Research and Educational Centre, MSU, Moscow, Russia;* ²*Department of Biochemistry and Molecular Medicine, Faculty of Medicine, MSU, Moscow, Russia;* ³*Research Institute of Urology named N.A. Lopatkin – branch FGBU "Federal medical research center named after P.A. Herzen", Moscow.* *e-mail: basalova.natalia@gmail.com
- 8. Design of Vaccine Constructs Capable of Inducing a Cross Protective Effect Against Different Strains of the Influenza Virus A.** S. Bazhan*, D. Antonets, L. Karpenko, T. Ilyicheva, O. Kaplina, V. Marchenko, S. Oreshkova. *State Research Center of Virology and Biotechnology "Vector", Koltsovo, Novosibirsk region, Russia.* *e-mail: bazhan@vector.nsc.ru
- 9. Neuroprotective Effects of Lithium Carbonate in Conditions of Tumor Growth.** N. Bgatova^{1*}, Yi. Taskaeva¹, V. Makarova¹, O. Solovjeva², N. Khotskin², A. Docenko², E. Zav'yalov², S. Shatskaya³, V. Isupov³, Yu. Borodin¹. ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS,*

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10. **Investigation of Meningioma Samples by Multi-omics Analysis.** K. Bocharov^{1,2*}, A. Sorokin¹, V. Shurhkhay^{1,3}, I. Popov^{1,2,4}, E. Zhvansky¹, A. Potapov³, E. Nikolaev^{1,2,5}. ¹Moscow Institute of Physics and Technology (State University), Dolgoprudny, Russia; ²Institute of Energy Problems of Chemical Physics of RAS, Moscow, Russia; ³N. N. Burdenko Scientific Research Neurosurgery Institute, Moscow, Russia; ⁴Emanuel Institute of Biochemical Physics of Russian Academy of Sciences, Moscow, Russia; ⁵Skolkovo Institute of Science and Technology, Skolkovo, Moscow region, Russia. *e-mail: bo4arow.konstantin@yandex.ru
11. **Potential Genetic Markers of Alzheimer's Disease, Which Play a Significant Role in Aging.** A. Bocharova^{1*}, K. Vagaitseva¹, O. Makeeva^{1,2}, A. Marusin¹, N. Zhukova³, I. Zhukova³, V. Alifirova³, M. Matveeva³, V. Stepanov^{1,4}. ¹Research Institute of Medical Genetics, Tomsk National Medical Research Center, Tomsk, Russia; ²Nebbiolo Center for Clinical Trials, Tomsk, Russia; ³Siberian State Medical University, Tomsk, Russia; ⁴Tomsk State University, Tomsk, Russia. *e-mail: anna.bocharova@medgenetics.ru
12. **Genome Rearrangements in Bacterial Genomes.** O.O. Bochkareva^{1*}, M.S. Gelfand^{1,2,3,4}. ¹Institute of Information Transmission Problem RAS, Moscow, Russia; ²Lomonosov State University, Moscow, Russia; ³Higher School of Economics, Moscow, Russia; ⁴Skolkovo Institute of Science and Technology, Moscow, Russia. *e-mail: olga.bochkaryova@gmail.com
13. **Computer Method for Image Enhancement in Fish Diagnostics.** A.G. Bogomolov^{1,2*}, T.V. Karamysheva¹, N.B. Rubtsov^{1,2}. ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia. *e-mail: mantis_anton@bionet.nsc.ru
14. **The Use of Mesenchymal Stem Cells and Erythropoietin in Lower Limb Ischemia.** N. Bondarenko*, A. Lykov, M. Surovtseva, O. Poveschenko, A. Kabakov, I. Kim, O. Kazakov, A. Poveschenko. Institute of Clinical and Experimental Lymphology – branch of ITSIG SB RAS, Novosibirsk, Russia. *e-mail: bond802888@yandex.ru
15. **Modified Sorbents for Pharmacology.** Yu.I. Borodin., L.N. Rachkovskaya*, T.V. Popova, A.A. Kotlyarova, S.V. Michurina, A.V. Shurlygina, E.E. Rachkovsky, M.V. Robinson, P.G. Madonov, M.A. Korolev, A.Yu. Letyagin, V.I. Kononkov. Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia. e-mail: noolit@niikel.ru
16. **A Search for Molecular Relationships Between Bronchial Asthma and Hypertension as an Example of Comorbid Diseases.** E.Yu. Bragina¹, M.B. Freidin¹, I.A. Goncharova¹, O.V. Saik², O.I. Zolotareva³, V.A. Ivanisenko², V.E. Dosenko⁴, R. Hofstaedt³. ¹Research Institute of Medical Genetics, Tomsk NRMC, Tomsk, Russia; ²The Federal Research Center Institute of Cytology and Genetics, The Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia; ³Bielefeld University, Bielefeld, Germany; ⁴Bogomoletz Institute of Physiology, National Academy of Science, Kiev, Ukraine
17. **Serum Levels of Adipokines in Type 2 Diabetic Subjects: the Relationships with Adipose Tissue Distribution and Microvasculature.** D.M. Bulumbaeva^{1*}, N.P. Bgatova¹, Yu.S. Taskaeva¹, O.N. Fazullina¹, N.B. Orlov¹, V.I. Kononkov¹, S.V. Savchenko². ¹Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia; ²Novosibirsk State Medical University, Novosibirsk, Russia. *e-mail: dinar.ka@mail.ru

18. **The Use of MCELatonina in Patients Older Than 60 Years in the Preoperative Period.** P. Bulychev, D. Khabarov, I. Siutkina, A. Smagin, A. Demura. *Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* e-mail: hdv@ngs.ru
19. **Morphology and Proteomic Analysis of Human Placental Exosomes.** E. Burkova^{1*}, G. Nevinsky^{1,2}. ¹*Institute of Chemical biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia.* *e-mail: burkova_evgeniya_e@mail.ru
20. **The Possibility of Colonization of Spongy Collagen Plate by Mesenchymal Stromal Cells.** N.N. Butorina¹, O.N. Sheveleva¹, O.V. Payushina¹, E.I. Domaratskaya¹, E.V. Istranova², L.P. Istranov². ¹*Institute of Developmental Biology. N.K. Koltsov RAS, Russia;* ²*Institute of Regenerative Medicine of the First Moscow State Medical University. IM.* *e-mail: nnbut@mail.ru
21. **Comparative analysis of lactaptin produced in bacterial and eukaryotic cells. Purification and activity.** O. Chinak^{1*}, O. Volkova², T. Belovezhec², A. Gorchakov², A. Tkachenko¹, E. Kuligina¹, V. Richter¹, O. Koval^{1,3}. ¹*Institute of Chemical Biology and Fundamental Medicine, SB, RAS, Novosibirsk, Russia;* ²*Institute of Molecular and Cellular Biology SB RAS, Novosibirsk, Russia;* ³*Novosibirsk State University, Novosibirsk, Russia.* *e-mail: chinakolga@gmail.com
22. **The Role of Wip1 Phosphatase in Tumor Cells, in The Tumor Microenvironment and Anti-Cancer Therapy.** O. Demidov^{1,2,3*}, E. Imyanitov³, N. Barlev¹, B. Grigorash^{1,2}, E. Kochetkova², B. Uyanik², C. Garrido². ¹*Institute of Cytology, RAS, St. Petersburg, Russia;* ²*INSERM U1231, University of Burgundy, Dijon, France;* ³*N.N. Petrov Institute of Oncology, Saint Petersburg, Russia.* *e-mail: Demidov.on@yahoo.com
23. **Real-Time Lipidomic Analysis of Biological Tissue Samples.** V. Eliferov^{1*}, E. Zhvansky^{1,2}, A. Sorokin¹, V. Shurkhay^{1,3}, I. Popov^{1,2}, E. Nikolaev⁴. ¹*Moscow Institute of Physics and Technology, Moscow, Russia;* ²*Institute for Energy Problems of Chemical Physics of RAS, Moscow, Russia;* ³*N. N. Burdenko Scientific Research Neurosurgery Institute, Moscow, Russia;* ⁴*Skolkovo institute of science and technology, Moscow Region, Russian Federation.* *e-mail: eliferov@phystech.edu
24. **Fluctuating Asymmetry of Gene Expression in Embryos Derived by In Vitro Fertilization.** N.A. Feofanova^{1*}, G.V. Kontsevaya², M.V. Anisimova², Y.L. Gon³, Y.M. Moshkin². ¹*Institute of Clinical Immunology SB RAS, Novosibirsk, Russia;* ²*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ³*Novosibirsk State University, Novosibirsk, Russia.* *e-mail: nataly.feofanova@gmail.com
25. **Promoter-Pathway Analysis Approach to Interpretation of Microarray Data of the Antitumor Peptide CIGB-552.** Fernández Massó JR^{1*}, Palenzuela Gardon D¹, Vázquez Blomquist D², Novoa L², Vallespi M¹. ¹*Pharmaceutical Department, Center for Genetic Engineering and Biotechnology, Cuba;* ²*Department of System biology, Center for Genetic Engineering and Biotechnology, Cuba.* *e-mail: julio.fernandez@cigb.edu.cu
26. **Clinical Case: Rare Mutations in the CYP1B1 Gene in a Patient with Primary Congenital Glaucoma.** V. Fishman¹, O. Fenkova², M. Voevoda^{1,3,4}, A. Fursova², D. Ivanoshchuk^{1,2,4*}. ¹*Federal Research Center Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State Regional Clinical Hospital, Novosibirsk, Russia;* ³*Research Institute of Internal and Preventive Medicine-Branch of Institute of Cytology and Genetics, , Novosibirsk, Russia;* ⁴*Novosibirsk State University, Novosibirsk, Russia.* *e-mail: dinara2084@mail.ru
27. **Hox Genes in the Holothurian Eupentacta Fraudatrix and Their Participation in the Regeneration.** V.A. Garipova^{1,2*}, A.S. Girich¹, I.Y. Dolmatov^{1,2}. ¹*National Scientific Center of*

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28. **Analysis of Transcripts and Expression of Hox Genes in the Holothuria Eupentacta Fraudatrix During Regeneration.** V.A. Garipova*, A.S. Girich, I.Y. Dolmatov. ¹A.V. Zhirmunsky Institute of Marine Biology, National Scientific Center of Marine Biology, FEB RAS, Vladivostok, Russia. *e-mail: garipulia@mail.ru
29. **DNA Methylation Level in Regulatory Regions of mtDNA and Three Mitochondria-Related Nuclear Genes in Atherosclerosis.** M.V. Golubenko^{1,2*}, A.V. Markov¹, A.A. Zarubin¹, A.A. Sleptcov¹, A.N. Kazantsev², O.A. Makeeva¹, V.V. Markova¹, I.A. Koroleva¹, M.S. Nazarenko^{1,2}, O.L. Barbarash², V.P. Puzyrev¹. ¹Research Institute of Medical Genetics, Federal State Budgetary Scientific Institution “Tomsk National Research Medical Center of the Russian Academy of Sciences”, Tomsk, Russia; ²Federal State Budgetary Scientific Institution Research Institute for Complex Issues of Cardiovascular Diseases, Kemerovo, Russia. *e-mail: maria.golubenko@medgenetics.ru
30. **Possibilities of Lymph Nodes Phytostimulation in the Old Age.** V. Gorchakov^{1,2*}, Yu. Kolmogorov², O. Gorchakova². ¹Novosibirsk State University, Novosibirsk, Russia; ²Institute of clinical and experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: vgorchak@yandex.ru
31. **New Lymphotropic Properties of Herbal Remedy Silymarin at Liver Pathology.** O. Gorchakova¹, T. Gaskina², V. Gorchakov^{1,2*}. ¹Institute of clinical and experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia. *e-mail: vgorchak@yandex.ru
32. **Alternative Splicing in Transcriptomes of Glioma Cell Cultures.** N.V. Gubanova^{1*}, V.N. Babenko^{1,2}, S.S. Kovalev^{3*}, A.V. Tsukanov¹, A.O. Bragin¹, Y.L. Orlov^{1,2}. ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia; ³Novosibirsk State Medical University, Novosibirsk, Russia; *e-mail: nat@bionet.nsc.ru
33. **Nanoparticles of Manganese Oxide Induce Stress Granule Formation in Human Glioblastoma Cells.** N.B. Illarionova^{1*}, K.N. Morozova^{1,2}, Y.B. Dorofeeva³, D.V. Petrovski¹, A.V. Romashenko¹, E.L. Zavjalov¹, E. Kiseleva¹, Y.M. Moshkin¹, M.P. Moshkin¹. ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University; ³National Research Tomsk State University. *e-mail: nina.illarionova@gmail.com
34. **Characterization of Cell Division in Primary Hippocampal Cultures Derived from Kaiso Deficient Mice.** N.B. Illarionova^{1*}, E.Y. Bazhenova¹, D.V. Fursenko¹, N.V. Khotskin¹, I.E. Sorokin¹, A.V. Kulikov¹. ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: nina.illarionova@gmail.com
35. **The Spectrum of Common and Rare CYP1B1 Gene Variants in Russia Patients with Congenital and Juvenile Open Angle Glaucoma.** D. Ivanoshchuk^{1,2,3}, O. Fenkova⁴, S. Mikhailova¹, I. Bychkov⁵, N. Konovalova⁶, O. Konovalova⁶, M. Voevoda^{1,2,3}, A. Fursova⁴, A. Romaschenko^{1,2}. ¹Federal Research Center Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Research Institute of Internal and Preventive Medicine-Branch of Institute of Cytology and Genetics, Novosibirsk, Russia; ³Novosibirsk State University, Novosibirsk, Russia; ⁴Novosibirsk State Regional Clinical Hospital, Novosibirsk, Russia; ⁵The academician S.N. Fyodorov Federal State Institution «Intersectoral Research and Technology Complex «Eye Microsurgery» of Ministry of Health, Novosibirsk, Russia; ⁶Tyumen State Medical University, Tyumen, Russia; *e-mail: dinara2084@mail.ru
36. **The Association of Single Nucleotide Variations Rs6582147 and Rs2136810 with Sudden Cardiac Death.** A. Ivanova^{1*}, V. Maksimov^{1,3}, S. Malyutina^{1,3}, V. Novoselov², M. Voevoda¹.

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37. **Molecular-Genetic Phenotype of Experimental Breast Cancer.** A.V. Kabakov*, A.P. Lykov, D.V. Morozov, O.V. Kazakov, A.F. Poveshchenko, T.V. Rayter, D.N. Strunkin, V.I. Konenkov. *Institute of Clinical and Experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* *e-mail: doctor03-85@ngs.ru
38. **КАЙГОРОДОВА**
39. **The Relationship of the Genes Expression of Actin-Binding Proteins with Metastasis in Squamous Cell Carcinoma of the Head and Neck and Non-Small Cell Lung Cancer.** G. Kakurina^{1*}, E. Kolegova, I. Kondakova¹, A. Dobrodeev, D. Kostromitsky, O. Cheremisina¹, E.L. Choynzonov^{1,2}. ¹Tomsk National Research Medical Center of the Russian Academy of Sciences, Tomsk, Russia; ²Siberian State Medical University, Tomsk, Russian Federation. *e-mail: kakurinagv@oncology.tomsk.ru
40. **Serum Markers in Head and Neck Squamous Cell Carcinoma.** G.V. Kakurina^{1*}, O.V. Cheremisina¹, I.V. Kondakova¹, E.L. Choynzonov^{1,2}. ¹Cancer Research Institute, Tomsk National Research Medical Center, Russian Academy of Sciences, Tomsk, Russia; ² Siberian State Medical University, Tomsk, Russian Federation. *e-mail: kakurinagv@oncology.tomsk.ru
41. **Gene Set Enrichment Analysis of Prefrontal Cortex and Hippocampus of Social Defeat Stressed Mice Reveals Physiological, Developmental and Metabolic Pathways Involved in Mood Disorders.** A. Kalueff^{1,3,4,5,6,7,9*}, K. Demin^{1,7,9,10}, D. Meshalkina^{1,7,9}, D. Smagin⁸, I. Kovalenko⁸, A. Galyamina⁸, A. Volgin^{1,2,7}, N. Kudryavtseva⁸. ¹Institute of Translational Biomedicine, St. Petersburg State University, St. Petersburg, Russia; ²Military Medical Academy, St Petersburg, Russia; ³School of Pharmacy, Southwest University, Chongqing, China; ⁴The International Zebrafish Neuroscience Research Consortium (ZNRC), Slidell, LA, USA; ⁵Ural Federal University, Ekaterinburg, Russia; ⁶ZENEREI Research Center, Slidell, LA, USA; ⁷Institute of Experimental Medicine, Almazov National Medical Research Center, St. Petersburg, Russia; ⁸Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia; ⁹Laboratory of Preclinical Bioscreening, Russian Research Center for Radiology and Surgical Technologies, Pesochny, Russia; ¹⁰Faculty of Biology, St. Petersburg State University, St. Petersburg, Russia. *e-mail: avkalueff@gmail.com
42. **Structure of Regional and Remote Lymph Nodes at Treatment of Chemically Induced Breast Cancer Using Double-Stranded DNA Human Panagen.** O.V. Kazakov^{1*}, A.V. Kabakov¹, A.F. Poveshchenko¹, T.V. Reiter¹, D.N. Strunkin¹, S.S. Bogachev², A.P. Lykov¹, V.I. Konenkov¹. ¹Institute of Clinical and Experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: kazakoff_oleg@mail.ru
43. **Impact on the Structure of Thymus and Regionary Lymph Nodes Adjuvant Therapy Using Preparation Double-Stranded DNA Human Panagen.** O.V. Kazakov^{1*}, A.V. Kabakov¹, A.F. Poveshchenko¹, T.V. Reiter¹, D.N. Strunkin¹, S.S. Bogachev², A.P. Lykov¹, V.I. Konenkov¹. ¹Institute of Clinical and Experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: kazakoff_oleg@mail.ru
44. **Technologies of Blood Saving with the Use of Tranexamic Acid in Myomectomy.** D. Khabarov, M. Kochetkova, I. Siutkina, F. Rakitin, P. Bulychev. *Institute of Clinical and*

Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. e-mail: hdv@ngs.ru

45. **New Indicator for Edema Evaluation.** R. Khapaev*, V. Nimaev, O. Shumkov, M. Soluyanov, M. Smagin. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Russia. *e-mail: khapaevrs@bionet.nsc.ru*
46. **Search for a Signals of Genetic Adaptation to High-Mountain Living in Populations of Dagestan.** V. Kharkov^{1*}, A. Zarubin¹, K. Vagaitseva¹, M. Radzhabov², V. Stepanov¹. ¹*Tomsk National Research Medical Center of the Russian Academy of Sciences, Research Institute of Medical Genetics, Tomsk, Russia;* ²*Daghestan Institute of Physics after Amirkhanov, Makhachkala, Russia. *e-mail:vladimir-kharkov@medgenetics.ru*
47. **Continuous Real-Time Observation of Behavior of Adipose-Derived Multipotent Mesenchymal Stromal Cell by Means of Cell-IQ Phase-Contrast Microscopy.** I. Khlusov^{1,2,3*}, L. Litvinova², V. Shupletsova², O. Khaziakhmatova², K. Yurova², V. Malashchenko², E. Melashchenko², L. Pokrovskaya¹. ¹*Tomsk State University, Tomsk, Russia;* ²*Immanuel Kant Baltic Federal University, Kaliningrad, Russia;* ³*Siberian State Medical University, Tomsk, Russia. *e-mail: khlusov63@mail.ru*
48. **Generation of 293FT Cell Lines Deficient in Base Excision Repair and Mismatch Repair by CRISPR/Cas9-Mediated Genome Editing.** D. Kim^{1,2*}, L. Kulishova¹, N. Torgasheva¹, D. Zharkov^{1,2}. ¹*Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia. *e-mail: kim.daria.nsk@gmail.com*
49. **Adaptive Strategies of Motile Bacteria in Dynamic Aquatic Ecosystems. A Simulation Study.** A.I. Klimenko*, Yu.G. Matushkin, S.A. Lashin. *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia. e-mail: klimenko@bionet.nsc.ru*
50. **Serum Levels of WISP1/CCN4 in Subjects with Type 2 Diabetes: the Relationships with Body Fat Distribution and Adipose Tissue Dysfunction.** V.V. Klimontov^{1*}, D.M. Bulumbaeva¹, A.P. Lykov¹, O.N. Fazullina¹, N.P. Bgatova¹, A.F.H.P. Pfeiffer^{2,3,4}, O. Pivovarova^{2,3,4}, N. Rudovich^{2,3,4,5}. ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Novosibirsk, Russia;* ²*German Center for Diabetes Research (DZD), Muenchen-Neuherberg, Germany;* ³*German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany;* ⁴*Charité University Medicine, Berlin, Germany;* ⁵*Spital Bülach, Bülach, Switzerland. *e-mail: klimontov@mail.ru*
51. **Switching to Insulin Glargine 300 U/MI from Other Basal Insulin Analogues Provides Less 24-Hour Glucose Variability in Hospitalized Patients with Type 1 Diabetes.** V.V. Klimontov*, E.A. Koroleva, O.N. Fazullina. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia. *e-mail: klimontov@mail.ru*
52. **Maturity-Onset Diabetes of the Young Due to HNF1B Mutation: a Case Report.** V.V. Klimontov^{1*}, D.M. Bulumbaeva¹, E.A. Koroleva¹, A.K. Ovsyannikova², O.D. Rymar², D.E. Ivanoshchuk², E.V. Shakhtshneider². ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia;* ²*Research Institute of Therapy and Preventive Medicine – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences Russia. *e-mail: klimontov@mail.ru*
53. **Comparative Analysis of Protein-Coding Potential of mRNAs and lncRNAs Based on Sequence Features.** Yu. Kondrakhin^{1,2}, R. Sharipov^{2,3}, O. Volkova^{4*}. ¹*Institute of*

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54. **An Integrative Framework for Effective Identification of Functional Disease-Associated Variants in Genome-Wide Studies.** E. Korbolina^{1,2,*}, L. Bryzgalov¹, A. Degtyareva¹, M. Verstunina³, T. Merkulova^{1,2}. ¹*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia;* ³*Novosibirsk State medical University, Novosibirsk, Russia. *e-mail: hungry@bionet.nsc.ru*
55. **Empagliflozin and Linagliptin Ameliorate Podocyte Injury and Enhance Autophagy in a Model of Type 2 Diabetic Nephropathy.** A.I. Korbut^{1*}, V.V. Klimontov¹, Yu.S. Taskaeva¹, N.P. Bgatova¹, E.L. Zavyalov². ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: anton.korbut@gmail.com*
56. **Estimation of Memory Retention in db/db Mice, a Model of Type 2 Diabetes, Under Empagliflozin or Combination of Empagliflozin and Linagliptin Treatment.** A.I. Korbut^{1*}, N.V. Khotskin², A.S. Dozenco², V.V. Klimontov¹, E.L. Zavyalov². ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: anton.korbut@gmail.com*
57. **Empagliflozin and Linagliptin Demonstrate Antifibrogenic Activity in db/db Mice, a Model of Type 2 Diabetes.** A.I. Korbut^{1*}, V.V. Klimontov¹, Yu.S. Taskaeva¹, N.P. Bgatova¹, A.D. Dozenco², E.L. Zavyalov². ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: anton.korbut@gmail.com*
58. **Phenotypes of Peripheral Dendritic Cells in Patients with Early Rheumatoid Arthritis.** M. Korolev^{1*}, V. Omelchenko¹, E. Letjagina¹, O. Poveshchenko¹, A. Lykov¹, M. Surovtseva¹, N. Banshchikova¹. ¹*Institute of Clinical and Experimental Lymphology – a branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: kormax@bk.ru*
59. **Remote Monitoring for the Diabetes Mellitus Type 1 as an Effective Tool to Improve Disease Compensation.** M.V. Koshmeleva^{*}, J.G. Samoilova, O.A. Oleynik. *Siberian State Medical University, Tomsk, Russia. *e-mail: mvbulavko@mail.ru*
60. **Comparative Pharmacokinetic Analysis of a Novel Prolonged Release Dosage form of Lithium Citrate in Mice.** A.A. Kotlyarova^{1,2,*}, A.Yu. Letyagin¹, T.G. Tolstikova², L.N. Rachkovskaya¹. ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia;* ²*N.N. Vorozhtsov Institute of Organic Chemistry SB RAS, Novosibirsk, Russia. *e-mail: kotlyarova.anastasiya@yandex.ru*
61. **Computer Analysis of Transcriptomes in Glioma Cells.** S.S. Kovalev^{1*}, N.V. Gubanova², A.V. Tsukanov², A.O. Bragin², Y.L. Orlov^{2,3}. ¹*Novosibirsk State Medical University, Novosibirsk, Russia;* ²*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ³*Novosibirsk State University, Novosibirsk, Russia. *e-mail: sergey.kovalev.1994@list.ru*
62. **Pathogenesis of Cerebral Cortex Damage in Mice During Infection with Seasonal Influenza A Virus.** A. Kovner^{1*}, P. Kozhin¹, O. Kurskaya¹, A. Slepneva². ¹*Research Institute of Experimental and Clinical Medicine – subdivision of FRC FTM, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia. *e-mail: anya.kovner@gmail.com*
63. **ADRB1 Gene Polymorphism and Pro-arrhythmic Electrocardiographic Patterns in the General Population of Novosibirsk.** A.A. Kuznetsov^{*}, A.A. Kuznetsova, T.I. Batluk, V.N. Maksimov, M.I. Voevoda, S.K. Malyutina, Yu.P. Nikitin. *Research Institute of Internal and*

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64. **Evolutionary Analysis and Mathematical Modeling of Gene Networks of Energy Metabolism Disorders.** S.A. Lashin^{1,2*}, Z.S. Mustafin^{1,2}, V.A. Manevich², D.A. Afonnikov^{1,2}, E.V. Ignatieva^{1,2}, Yu.G. Matushkin^{1,2}, V.V. Klimontov^{2,3}. ¹*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia;* ³*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Novosibirsk, Russia, Novosibirsk, Russia. *e-mail: lashin@bionet.nsc.ru*
65. **Ultrasound Technologies for Quantitative Characterization of Insulin-Induced Lipohypertrophy in Subjects with Diabetes.** M.M. Lazarev*, A.A. Makhotin, V.V. Klimontov, D.M. Bulumbaeva, E.A. Koroleva, A.Y. Letyagin. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: mmlazarev@mail.ru*
66. **New Regulatory SNPs Associated with Colorectal Cancer.** E. Leberfarb^{1,2*}, A. Degtyareva^{1,2}, V. Maximov^{1,2}, M. Voevoda^{1,3}, A. Autenshlus², D. Morozov⁴, A. Sokolov⁴, D. Veselova², S. Bannikova¹, E. Demidov¹, L. Bryzgalov¹, T. Merkulova^{1,3}. ¹*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State Medical University, Novosibirsk, Russia;* ³*Novosibirsk State University, Novosibirsk, Russia;* ⁴*City Clinical Hospital No. 1, Novosibirsk, Russia. *e-mail: lieberfarb@bionet.nsc.ru*
67. **Simulation of Circadian Temporal Organization of the Lymph Node System Using the Automated Expert Program SMLN.** A.Yu. Letyagin, A.V. Shurlygina*, I.B. Belan, M.V. Robinson, V.A. Trufakin. *Research Institute of Clinical and Experimental Lymphology - Branch of the Institute of Cytology and Genetics, SB RAS Novosibirsk, Russia. *e-mail: anna_v_s@mail.ru*
68. **Primate-Specific Long Non-Coding RNA (LncRNA) Genes as Regulators and Drug Target Candidates in Human Cancer and Diabetes.** L. Lipovich^{1*}, P. Thepsuwan¹, E.L. Kleinbrink¹, A.-S. Goustin¹, C.-Y. Lin², J. Cai¹, D. Ju¹, C.E. Mason³, J.B. Brown⁴. ¹*Center for Molecular Medicine and Genetics, Wayne State University, Detroit, Michigan, USA;* ²*Department of Biology and Biochemistry, University of Houston, Houston, Texas, USA;* ³*Department of Physiology and Biophysics, Weill Cornell Medicine, New York, New York, USA;* ⁴*Division of Molecular Ecosystems Biology, Lawrence Berkeley National Laboratory, Berkeley, California, USA. *e-mail: LLipovich@med.wayne.edu*
69. **Epigenetic Changes of MMSCs Under the Influence of Calcium Phosphate Coating with Different Roughness.** L. Litvinova¹, K. Yurova¹, V. Shupletsova¹, O. Khaziakhmatova¹, E. Melashchenko¹, N. Todosenko¹, V. Malashchenko¹, E. Shunkin¹, Y. Sharkeev^{2,3}, E. Komarova³, M. Sedelnikova³, I. Khlusov^{1,2}. ¹*Basic Laboratory of Immunology and Cell Biotechnology, Immanuel Kant Baltic Federal University, Kaliningrad, Russia;* ²*Tomsk Polytechnic University, Tomsk, Russia;* ³*Laboratory of Physics of Nanostructured Biocompatible Composites, Institute of Strength Physics and Materials Science of Siberian Branch of Russian Academy of Sciences, Tomsk, Russia. *e-mail: larisalitvinova@yandex.ru*
70. **Bone Marrow Hematopoiesis and Peripheral Blood Parameters in Mice with Chronic Opisthorchiasis and Social Stress.** M. Lvova^{1*}, I. Orlovskaya², L. Toporkova², I. Sorokina³, D. Avgustinovich¹. ¹*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Institute of Fundamental and Clinical Immunology, Novosibirsk, Russia;* ³*N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia. *e-mail: llovamaria@mail.ru*
71. **Autologous Plasma Enriched with Platelet Lysate for Treatment in Patients with Age-Related Macular Degeneration.** A.P. Lykov^{1,2}, O.V. Poveshchenko^{1,2}, M.A. Surovtseva^{1,2}, O.M. Stanishevskaya³, D.V. Chernykh³, N.S. Arben'eva³, V.I. Bratko³. ¹*Research Institute of*

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72. **Erythropoietin Augment Therapeutic Potential of Mesenchymal Stem Cells in Rat with Degenerate Intervertebral Disk.** A.P. Lykov^{1,2*}, N.A. Bondarenko^{1,2}, O.V. Poveshchenko^{1,2}, I.I. Kim^{1,2}, M.A. Surovtseva^{1,2}, Z.B. Sadykova³, P.A. Semin³, E.L. Zavjalov⁴, A.L. Krivoshapkin³, V.I. Konenkov¹. ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia;* ²*Research Institute of Circulation Pathology, Ministry of Health Care of Russian Federation, Novosibirsk, Russia;* ³*Novosibirsk government medical university, Novosibirsk, Russia;* ⁴*Federal research center Institute of cytology and genetics of Siberian branch of the Russian Academy of Sciences, Novosibirsk, Russia*
73. **Development and Validation of Experimental Cholangiocarcinoma Models for Ex Vivo and In Vivo Analysis.** G.A. Maksimova*, A.V. Kovner, A.G. Shilov, M.Yu. Pakharukova, A.V. Mordvinov. *Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* * e-mail: maksimova@bionet.nsc.com
74. **DNA Methylation and Expression of MicroRNA Genes in Unstable Carotid Atherosclerotic Plaques.** A. Markov^{1*}, A. Zarubin^{1,2}, M. Nazarenko^{1,2,3}, A. Kucher¹, I. Koroleva¹, D. Sharysh², A. Kazantsev³, O. Barbarash³, V. Puzyrev^{1,2}. ¹*Tomsk National Research Medical Center of the Russian Academy of Sciences, Research Institute of Medical Genetics, Tomsk, Russia;* ²*Siberian State Medical University, Tomsk, Russia;* ³*Research Institute for Complex Issues of Cardiovascular Diseases, Kemerovo, Russia.* *e-mail: anton.markov@medgenetics.ru
75. **Apoptosis in the liver of DB/DB Mice Female in Postnatal Ontogenesis.** S.V. Michurina¹, I.Yu. Ishchenko¹, M.A. Cherepanova¹, S.A. Arkhipov¹, Yu.I. Borodin¹, E.L. Zavjalov², D.V. Vasendin³. ¹*Institute of Clinical and Experimental Lymphology – a branch of The Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ³*Novosibirsk State Medical University, Russia.* *e-mail: irenisch@mail.ru
76. **Linagliptin Effect on the Relation of Apoptosis Regulators in DB/DB Mice Liver.** S.V. Michurina^{1*}, I.Yu. Ishchenko¹, M.A. Cherepanova¹, S.A. Arkhipov¹, V.V. Klimontov¹, E.L. Zavjalov². ¹*Institute of Clinical and Experimental Lymphology - a branch of The Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* *e-mail: michurina@ngs.rum
77. **Use of Next-Generation Sequencing (NGS) to Clarify the Cause of a Premature Newborn Death: Clinical Case.** A. Mikhalenka^{1*}, M. Artsiusheuskaya², O. Malyshava¹, A. Shchayuk¹, S. Kachan³, G. Kulakova², A. Kilchevsky¹. ¹*Institute of Genetics and Cytology of NASB, Minsk, Belarus;* ²*Belarusian Medical Academy of Post-Graduate Education, Minsk, Belarus;* ³*Clinical maternity hospital of Minsk region, Minsk, Belarus.* *e-mail: michalenko75@mail.ru
78. **NMR and DFT Study of the Mechanism for Increased Antitumor Activity of Carboplatin in Mixture with Cucurbit[7]uril.** I. Mirzaeva^{1,2*}, E. Pashkina^{3,4}, I. Andrienko¹, E. Kovalenko¹, N. Knauer³, A. Ermakov⁴, A. Aktanova⁴, V. Kozlov³. ¹*Nikolaev Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia;* ³*Research Institute of Fundamental and Clinical Immunology, Novosibirsk, Russia;* ⁴*Novosibirsk State Medical University, Novosibirsk, Russia.* *e-mail: dairdre@gmail.com
79. **Software "DoctorCT" for Modeling Images of Internal Organs, Based on Computer and Magnetic Resonance Imaging.** A. Mishvelov^{1,2*}, K. Nuzhnya¹, M. Kukharuk¹. ¹*North-*

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80. **Studying Calcium Signaling in Individual Suspended Platelets.** A.E. Moskalensky^{1,2}, D.V. Spiriyova¹, O.Yu. Karmatskih¹, A.Yu. Vorob'ev^{1,3}. ¹Novosibirsk State University, Novosibirsk, Russia; ²Voevodsky Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia; ³N.N. Voroztsov Institute of Organic Chemistry, Novosibirsk, Russia. *e-mail: sunmosk@mail.ru
81. **Polymorphic Variants in Stress Resistance Genes and Human Emotional Stability.** Mosse¹, K. Bakunovich^{1*}, I. Charykova², L. Kukhtinskaya¹, P. Yeuleyeu¹. ¹Institute of Genetics and Cytology, NAS of Belarus, Minsk; ²Republican Scientific and Practical Center of Sports, Minsk, Belarus. *e-mail: zhur_kv@mail.ru
82. **Novel Lentiviral Vectors for Studies of Glioblastoma.** O. Mozhei^{1*}, A.G. Teschemacher², S. Kasparov². ¹Immanuel Kant Baltic Federal University, Kaliningrad, Russia; ²Bristol University, Bristol, UK. *e-mail: omozhei@gmail.com
83. **Developing FoldGO, the Tools for Multifactorial Functional Enrichment Analysis.** A.M. Mukhin^{1,2*}, D.S. Wiebe^{1,2}, I.Grosse^{3,2}, S.A. Lashin^{1,2}, V.V. Mironova^{1,2}. ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia; ³Martin-Luther University, Halle-Wittenberg, Germany. *e-mail: mukhin@bionet.nsc.ru
84. **Application of New Bioinformatics Approach for Prediction of Metabolic Capabilities for Carbohydrate Fermentation in Human Gut Microbiome.** A.A. Murtazin*, A.A. Arzamasov, S.N. Yablokov, D.A. Rodionov. Institute for Information Transmission Problems RAS. *e-mail: aa.murtazin@gmail.com
85. **Glucose Variability in Type 1 Diabetic Patients with Different Stages of Chronic Kidney Disease.** N.E. Myakina^{1*}, A.K. Vigel², I.Y. Lots³. ¹Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia; ²Regional Clinical Hospital, Barnaul, Russia; ³Novosibirsk State University, Novosibirsk, Russia. *e-mail: nmyakina@list.ru
86. **Continuous Glucose Monitoring Data Analysis in Insulin-Treated Type 1 And Type 2 Diabetic Subjects with the Use of Original Software.** N.E. Myakina^{1*}, I.Y. Lots², V.V. Klimontov^{1,2}. ¹Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia. *e-mail: nmyakina@list.ru
87. **Omics-Based Approach to Profiling of Human Atherosclerotic Plaques.** M.S. Nazarenko^{1,2,3*}, A.A. Sleptsov¹, A.V. Markov¹, A.N. Kazantsev², O.L. Barbarash², V.P. Puzyrev^{1,3}. ¹Research Institute of Medical Genetics, Tomsk National Research Medical Center, Russian Academy of Science, Tomsk, Russia; ²Research Institute for Complex Issues of Cardiovascular Diseases, Kemerovo, Russia; ³Siberian State Medical University, Tomsk, Russia. *e-mail: maria.nazarenko@medgenetics.ru
88. **Development and Optimization DNA Platform for Suppressing Cancer Cells.** D. Nedorezova^{1*}, D. Kolpashchikov^{1,2}. ¹Saint Petersburg National Research University of Information Technologies, Mechanics and Optics, Saint Petersburg, Russia; ²University of Central Florida, Orlando, Florida, USA. *e-mail: darianedorez@icloud.com
89. **Heterogeneity of Motility of Chondrocyte Population from Minipig's Knee-Joint.** S.V. Nikolaev^{1*}, U.S. Zubairova¹, K.E. Orishchenko¹, N.M. Astakhova², A.A. Voropaeva², E.I. Shchelkunova², I.A. Kirilova². ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Ya. L. Tsiyvan Novosibirsk Research Institute of Traumatology and Orthopedics, Novosibirsk, Russia. *e-mail: nikolaev@bionet.nsc.ru

90. **Detection of the Lymphatic Capillaries in the Optic Nerve Sheath.** S. Nogovitsina^{1*}, N. Bgatova¹, Yu. Borodin¹, V. Chernykh², A. Trunov², A. Eremina², V. Konenkov¹. ¹*Federal State Budgetary Scientific Institution «Scientific Institute of Clinical and Experimental Lymphology», Novosibirsk, Russia;* ²*The academician S.N. Fyodorov Federal State Institution «Intersectoral Research and Technology Complex «Eye Microsurgery», Ministry of Healthcare of Russian Federation, Novosibirsk Branch, Novosibirsk, Russia.* *e-mail: nogovitsina.niikel@gmail.com
91. **Regeneration of Rat Skeletal Muscle Induced by MSC-Populated Collagenous Scaffolds.** A. Novokreshchenova*, N. Butorina, O. Payushina, O. Sheveleva, E. Domaratskaya. *Koltzov Institute of Developmental Biology of RAS, Russia.* *e-mail: a.novokresh@mail.ru
92. **Complex Analysis of Cytokine Concentrations Using X-map Technology in Women with Uterine Myoma.** N.B. Orlov*, V.I. Konenkov, E.G. Koroleva, A.M. Novikov. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia.* *e-mail: nbo700@mail.ru
93. **Verification of MODY Diabetes: Phenotypic and Molecular-Genetic Characteristics.** A.K. Ovsyannikova*, O.D. Rymar, E.V. Shakhtshneider, M.I. Voevoda. *Research Institute of Therapy and Preventive Medicine – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences Russia.* *e-mail aknikolaeva@bk.ru
94. **Effect of Mesenchymal Stromal Cells from Different Sources on Skin Regeneration.** O.V. Payushina*, N.N. Butorina, O.N. Sheveleva, E.I. Domaratskaya. *Koltzov Institute of Developmental Biology RAS, Moscow, Russia.* *e-mail: payushina@mail.ru
95. **Application of Plant ROS1 5-Methylcytosine-DNA Glycosylase as Tool for Directed Epigenetic Demethylation in Human Cells.** D. Petrova^{1*}, I. Grin^{1,2}, D. Zharkov^{1,2}. ¹*Institute of Chemical biology and fundamental medicine SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia.* *e-mail: dashapetr21@gmail.com
96. **Circulating DNA-Markers for Diagnostics and Monitoring of Lung Cancer: Analysis of LINE-1 Retrotransposons Methylation in the Blood.** A. Ponomaryova^{1,2*}, E. Rykova^{3,4}, A. Bondar³, A. Dobrodeev¹, A. Zavyalov¹, S. Tuzikov¹, V. Vlassov³, N. Cherdyntseva^{1,5}, P. Laktionov^{3,6}. ¹*Tomsk National Research Medical Center RAS, Tomsk, Russia;* ²*Tomsk Polytechnical University, Tomsk, Russia;* ³*Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* ⁴*Novosibirsk State Technical University, Novosibirsk, Russia;* ⁵*Tomsk State University, Tomsk, Russia;* ⁶*Meshalkin Siberian Federal Biomedical Research Center, Novosibirsk, Russia.* *e-mail: anastasia-ponomaryova@rambler.ru
97. **Analysis of Variance in the Development of New Drugs.** T.V. Popova^{1,2*}, N.O. Karabintseva², L.N. Rachkovskaya¹, A.A. Kotlyarova¹, M.V. Robinson¹, M.A. Korolev¹, A.Yu. Letyagin¹. ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State Medical University, Novosibirsk, Russia.* *e-mail: argentum.popova@mail.ru
98. **Genetic Adaptation of Human Populations to Climatic Conditions of Northern Eurasia.** A. Popovich*, V. Stepanov, K. Vagaitseva, A. Bocharova. *Research Institute of Medical Genetics, Tomsk National Research Medical Center of the Russian Academy of Sciences, Tomsk, Russia.* *e-mail: anastasia.cherednichenko@medgenetics.ru
99. **MicroRNA in Lymph in Experimental Breast Cancer.** A.F. Poveshchenko*, A.V. Kabakov, A.P. Lykov, O.V. Kazakov, T.V. Rayter, D.N. Strunkin, V. I. Konenkov. *Institute of Clinical and Experimental Lymphology – branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* *e-mail: poveshchenkoa200@mail.ru

100. **Effect of Cytokines on Functional Properties of Fibroblasts.** O.V. Poveshchenko*, A.P. Lykov, M.A. Surovtseva, N.A. Bondarenko, I.I. Kim, V.I. Konenkov. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia. e-mail: poveshchenkoov@yandex.ru*
101. **Polymorphic Variants of Signaling Pathway Akt1/GSK-3 β Gene and Tardive Dyskinesia in Schizophrenic Patients.** I.V. Pozhidaev¹, A. Levchenko³, D.Z. Osmanova¹, I.S. Losenkov¹, O.Yu. Fedorenko¹, N.M. Vyalova¹, A.V. Semke¹, B. Wilffert², A.J.M. Loonen², S.A. Ivanova¹. ¹*Mental Health Research Institute, Tomsk National Research Medical Center of the Russian Academy of Sciences, Tomsk, Russia;* ²*Groningen Research Institute of Pharmacy, University of Groningen, Groningen, The Netherlands;* ³*Institute of Translational Biomedicine, Saint Petersburg State University, Saint Petersburg, Russia. * e-mail: craig1408@yandex.ru*
102. **Investigation of Biological Effects of Cluster Complexes of Metals and Their Conjugates with Cyclodextrins in vivo and in vitro.** T. Pozmogova^{1,2*}, A. Sovovieva¹, Y. Vorotnikov³. ¹*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia;* ³*Institute of Inorganic Chemistry, Novosibirsk, Russia. *e-mail: tnp_post@mail.ru*
103. **Interactome Network Topology in Diabetic Retinopathy.** V. Prokofev*, A. Shevchenko, V. Konenkov, V. Klimontov. *Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: vf_prok@mail.ru*
104. **Reperfusion Activates AP-1 and Heat Shock Response in Donor Kidney Parenchyma After Warm Ischemia.** A. Reznik^{1,2}, O. Plotnikova³, A. Skvortzov⁴, M. Skoblov^{3,5}, O. Reznik^{4,6}, A. Baranova^{2,3,5,7*}. ¹*Center for Bioinformatics, First Pavlov State Medical University, Saint-Petersburg, Russia;* ²*Department of Genetics, Atlas Biomed Group, Moscow, Russia;* ³*Moscow Institute of Physics and Technology, Moscow, Russia;* ⁴*Organ transplant department, First Pavlov State Medical University, Saint-Petersburg, Russia;* ⁵*Research Centre for Medical Genetics, Moscow, Russia;* ⁶*Organ Procurement Center, Research Institute of Emergency Medicine n.a. I.I. Dzhanelidze, Saint-Petersburg, Russia;* ⁷*School of Systems Biology, George Mason University, Fairfax, VA, United States. *e-mail: aancha@gmail.com*
105. **Study of mtDNA Copy Number and LINE-1 in Atherosclerosis.** R. Salakhov^{1*}, M. Golubenko^{1,2}, A. Markov¹, A. Sleptcov¹, M. Nazarenko^{1,2}, O. Barbarash², V. Puzyrev¹. ¹*Research Institute of Medical Genetics, Federal State Budgetary Scientific Institution “Tomsk National Research Medical Center of the Russian Academy of Sciences”, Tomsk, Russia;* ²*Federal State Budgetary Scientific Institution Research Institute for Complex Issues of Cardiovascular Diseases, Kemerovo, Russia. *e-mail: ramil.salakhov@medgenetics.ru*
106. **Natural Bispecific Antibodies: Generation, Isolation, Biological Functions.** S.E. Sedykh^{1,2*}, V.V. Printz^{1,2}, V.N. Buneva^{1,2}, G.A. Nevinsky^{1,2}. ¹*Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia. *e-mail: sedyh@niboch.nsc.ru*
107. **Natural Bispecific Antibodies – Biochemical Markers of Autoimmune Pathology.** S.E. Sedykh*, V.V. Printz, V.N. Buneva, G.A. Nevinsky. *Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk State University, Novosibirsk, Russia. e-mail: sedyh@niboch.nsc.ru*
108. **Cellular Technologies Based on Bendritic Cells.** S.V. Sennikov^{1*}, V.V. Kurilin¹, J.A. Lopatnikova¹, J.A. Shevchenko¹, E.V. Kulikova¹, A.Z. Maksutov^{1,2}, J.N. Khantakova¹, V.P. Tereshchenko¹, A.N. Silkov¹, M.S. Kuznetsova¹, A.A. Khristin³, N.A. Kiryishina⁴, V.V. Kozlov⁴, A.P. Cherkasov³, S.V. Sidorov⁵, A.V. Sokolov³, A.E. Vitsin³. ¹*Federal State Budgetary Scientific Institution Research Institute of Fundamental and Clinical Immunology, Novosibirsk,*

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109. **Exome Analysis of Patients with Maturity onset Diabetes of the Young in Russia.** E. Shakhtshneider^{1,3*}, D.E. Ivanoshchuk^{1,2,3}, A.K. Ovsyannikova¹, O.D. Rymar¹, M.I. Voevoda^{1,2,3}. ¹Research Institute of Internal and Preventive Medicine – branch of Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia; ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ³Novosibirsk State University, Novosibirsk, Russia. *e-mail: 2117409@mail.ru
110. **Computer Genomics of Regulatory Single Nucleotide Polymorphisms in Neurodegenerative Diseases Based on Metabolic Pathways Models.** P. Shanmughavel^{1*}, R. Sathishkumar¹, M.P. Ponomarenko^{2,3}, M.R. Khantemirova³, L.E. Tabikhanova³, Y.L. Orlov^{2,3}. ¹Department of Bioinformatics, Bharathiar University, Coimbatore, Tamilnadu, India; ²Novosibirsk State University, Novosibirsk, Russia; ³Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: shanmughavel@buc.edu.in
111. **Defining the Genetic Control of Human Blood Plasma Glycome Using Genome-Wide Association Study.** S. Sharapov^{1,2*}, Y. Tsepilov^{1,2}, L. Klaric^{3,4}, M. Mangino⁵, F. Vuckovic³, H. Csmpbell^{6,7}, M. Dunlop⁷, S. Farrington⁷, K. Suhre⁸, T. Spector⁵, G. Lauc³, Y. Aulchenko^{1,2}. ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia; ³Genos Glycoscience Research Laboratory, Zagreb, Croatia; ⁴Human Genetics Unit, MRC, Institute of Genetics and Molecular Medicine, University of Edinburgh; ⁵Department of Twin Research and Genetic Epidemiology, King's College London, London, UK; ⁶Centre for Global Health Research, Usher Institute of Population Health Sciences and Informatics, The University of Edinburgh, Edinburgh EH8 9AG, UK; ⁷Colon Cancer Genetics Group, Medical Research Council Human Genetics Unit, Medical Research Council Institute of Genetics & Molecular Medicine, Western General Hospital, The University of Edinburgh, Edinburgh EH4 2XU, UK; ⁸Department of Physiology and Biophysics, Weill Cornell Medicine-Qatar, Education City, PO 24144 Doha, Qatar. *e-mail: sharapovsodbo@gmail.com
112. **Association of Intracellular Proteolytic Systems and Locomotor Proteins in Tissues of Primary Tumor and Lymphogenous Metastases of Breast Cancer.** E. Shashova*, N. Tarabanovskaya, E. Slonimskaya, I. Kondakova. Tomsk National Research Medical Center of the Russian Academy of Sciences (Tomsk NRMCC), Russia. *e-mail: schaschovae@oncology.tomsk.ru
113. **Orthopoxviral TNF-binding Protein.** S.N. Shchelkunov^{1,2*}, T.V. Tregubchak¹, I.P. Gileva¹. ¹State Research Center of Virology and Biotechnology "Vector", Koltsovo, Novosibirsk region, Russia; ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: snshchel@rambler.ru
114. **Polymorphism of Genes of Endothelial Dysfunction, Mitochondrial Biogenesis Coactivators and Plasminogen-Plasmin System in Development of Cardiovascular Complications in Rheumatoid Arthritis.** A. Shevchenko*, V. Prokof'ev, M. Korolev, V. Omelchenko, V. Konenkov. Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia. *e-mail: shalla64@mail.ru
115. **Identification of an ABC-Type Multidrug Efflux Pump MacAB Genes in the Genome of *Serratia Marcescens* SM6.** T.V. Shirshikova^{1*}, D.S. Pudova¹, D. A. Kabanov¹, A. O. Tikhonova¹, M.R. Sharipova¹, L.M. Bogomolnaya^{1,2}. ¹Kazan (Volga region) Federal University, Kazan, Russia; ²Texas A&M University Health Science Center, Microbial Pathogenesis and Immunology, Bryan, USA. *e-mail: tatyana-shirshikova@yandex.ru

116. **Radiofrequency Ablation of Varicose Veins in Obese Patients.** O. Shumkov¹, M. Smagin¹, V. Nimaev^{1*}, M. Soluyanov¹, A. Sadovskii². ¹*Institute of Clinical and Experimental Lymphology, SB RAS, Novosibirsk, Russia;* ²*Multidisciplinary clinic «Medsanchast-168», Novosibirsk, Russia.* *e-mail: nimaev@gmail.com
117. **Role of DNA Methylation in Incomplete Penetrance of Copy Number Variations.** N.A. Skryabin*, S.A. Vasilyev, E.N. Tolmacheva, R.R. Savchenko, D.I. Zhigalina, A.A. Kashevarova, A.A. Zarubin, E.O. Belyaeva, L.P. Nazarenko, I.N. Lebedev. *Research Institute of Medical Genetics TNRMC, Tomsk, Russia.* *e-mail: nikolay.skryabin@medgenetics.ru
118. **Copy Number Calling from Infinium MethylationEPIC Array in Human Carotid Atherosclerotic Plaques.** A.A. Sleptsov^{1*}, M.S. Nazarenko^{1,2,3}, A.V. Markov¹, D.V. Sharysh³, A.N. Kazantsev², O.L. Barbarash², V.P. Puzyrev^{1,3}. ¹*Research Institute of Medical Genetics, Tomsk National Research Medical Center, Russian Academy of Science, Tomsk, Russia;* ²*Research Institute for Complex Issues of Cardiovascular Diseases, Kemerovo, Russia;* ³*Siberian State Medical University, Tomsk, Russia.* *e-mail: alexei.sleptcov@medgenetics.ru
119. **PRP in Treatment of Non-Healing Ulcers.** M. Smagin*, A. Demura, O. Shumkov, T. Isaeva^{1,2}, M. Soluyanov, O. Poveshenko, V.V. Nimaev. ¹*RICEL– Branch of IC&G SB RAS, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia.* *e-mail: msa85@inbox.ru
120. **Circulating Adiponectin Concentrations are Sex-Dependently Associated with Specific SNPs of ADIPOQ and LEP Genes.** S. Smetnev, M. Klimushina*, A. Meshkov, N. Gumanova, N. Gavrilova, A. Ershova, A. Kiseleva, V. Metelskaya. *National Medical Research Center for Preventive Medicine, Moscow, Russia.* *e-mail: mklimushina@gmail.com
121. **Carnitine Palmitoyltransferase1A (CPT1A) P479L Allele Prevalence in the Arctic Native Populations of East Siberia.** M. Smolnikova*, S. Tereshchenko. *Scientific Research Institute of Medical Problems of the North, Federal Research Center «Krasnoyarsk Science Center» of the Siberian Branch of the Russian Academy of Sciences, Krasnoyarsk, Russia.* *e-mail: smarinv@yandex.ru
122. **Genes of Cytokines in Controlled and Uncontrolled Asthma in Children (East Siberia).** M. Smolnikova*, S. Smirnova, O. Konopleva. *Scientific Research Institute of Medical Problems of the North, Federal Research Center «Krasnoyarsk Science Center» of the Siberian Branch of the Russian Academy of Sciences, Krasnoyarsk, Russia.* *e-mail: smarinv@yandex.ru
123. **Platelet-Rich Plasma Coated PCL Nanofibers Boost Viability and Proliferation of Human Mesenchymal Stem Cells.** A.O. Solovieva^{1*}, S.M. Miroshnichenko^{1,2}, T.N. Pozmogova¹, A.M. Manakhov³. ¹*RICEL– Branch of the ICG SB RAS, Novosibirsk, Russia;* ²*FRCof FTM - Institute of Biochemistry, Novosibirsk, Russia;* ³*National University of Science and Technology “MISiS”, Moscow, Russia.* *e-mail: solovevaao@gmail.com
124. **Personalization Treatment of the Bladder Leukoplakia.** M.Yu. Soluyanov*, M.A. Smagin, O.A. Shumkov, V.V. Nimaev. *RICEL – Branch of IC&G SB RAS Novosibirsk, Russia.* *e-mail: msoluyanov@mail.ru
125. **The Advantage of the Multidimensional Data Visualization for the Characterizing of the Immune System State.** M. Stakheyeva^{1,3*}, D. Eidenzon², M. Patysheva¹, N. Cherdyntseva^{1,3}. ¹*Cancer Research Institute of Tomsk National Research Medical Center of RAS, Tomsk, Russia;* ²*Novospark Corporation, Waterloo, Canada;* ³*Tomsk State University, Tomsk, Russia.* *e-mail: stakheyevam@oncology.tomsk.ru
126. **Effectiveness of Cytocine Antihypoxic Cerebroprotecton.** E. Suprun*, S. Tereshchenko, S. Tronko, E. Kachalova. *National Pharmaceutical University, Clinical Pharmacology, Kharkov, Ukraine.* *e-mail: suprun_elina@mail.ru

127. **Oxidative Stress Protection of the Bone Marrow-Derived Mesenchymal Stem Cells by Erythropoietin.** M.A. Surovtseva*, I.I., Kim, A.P. Lykov, N.A. Bondarenko, O.V. Poveshchenko. *Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetic, SB RAS, Novosibirsk, Russia.* *e-mail: mfelde@ngs.ru
128. **The Efficiency of Applying Mathematical Methods to Analyze the Occurrence of Genotypes and Alleles G-308A TNF- α Among Atopic Dermatitis Patients with Manifestations of Connective Tissue Dysplasia.** N. Svechnikova*, V. Prokof'ev, V. Konenkov. *The Institute of Clinical and Experimental Lymphology - Branch of the Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia.* *e-mail: n.svechnikova@ngs.ru
129. **Metabolic Syndrome Associated *FTO* Gene Polymorphism in Populations of Buryats and Russians of Eastern Siberia.** L.E. Tabikhanova^{1*}, L.P. Osipova^{1,3}, E.N. Voronina^{2,3}, M.L. Filipenko^{2,3}. ¹*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia;* ³*Novosibirsk State University, Novosibirsk, Russia.* *e-mail: tabikhan@bionet.nsc.ru
130. **Lithium and Autophagy in Hepatocellular Carcinoma.** Iu. Taskaeva^{1,2,*}, N. Bgatova¹. ¹*Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia;* ²*Novosibirsk State University, Novosibirsk, Russia.* *e-mail: inabrite@yandex.ru
131. **Role of the Dominant Placental Protein Pregnancy Specific β -1-Glycoprotein in the Regulation of T-Cell Immune Memory.** V.P. Timganova^{1*}, L.S. Litvinova², K.A. Yurova², O.G. Khaziakhmatova², M.S. Bochkova¹, P.V. Khramtsov¹, M.B. Rayev¹, S.A. Zamorina¹. ¹*Institute of Ecology and Genetics of Microorganisms UB RAS, Perm;* ²*Immanuel Kant Baltic Federal University, Kaliningrad.* *e-mail: timganovavp@gmail.com
132. **Molecular Bioidentification as the Key Point on the Way of Solving Problems in Biomedicine and Biotechnology.** A.V. Timofeev. *Department of Molecular Biotechnology, St. Petersburg State Technological Institute (Technical University), St. Petersburg, Russia.* e-mail: tavnaukaasp@bk.ru
133. **The Interaction Effect of Angiogenesis and Endothelial Dysfunction-Related Gene Variants Increases the Susceptibility of Recurrent Pregnancy Loss.** E. Trifonova^{1,2*}, O. Ganzha², V. Serebrova¹, T. Gabidulina², V. Stepanov¹. ¹*Research Institute of Medical Genetics SB RAMS, Tomsk, Russia;* ²*Siberian State Medical University, Tomsk, Russia.* *e-mail: ekaterina.trifonova@medgenetics.ru
134. **Large Genome-Wide Association Study Provides Insight into the Genetic Architecture of Low Back Pain and Its Risk Factors.** Y.A. Tsepilov^{2,3^*}, M.B. Freidin^{1^}, M. Palmer⁴, L.C. Karssen⁶, P. Suri^{4,5}, Y.S. Aulchenko^{3,6}, F. MK Williams¹. ¹*Department of Twin Research and Genetic Epidemiology, School of Life Course Sciences, King's College London, London, UK;* ²*Novosibirsk State University, Novosibirsk, Russia;* ³*Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia;* ⁴*University of Washington, Seattle, USA;* ⁵*V A Puget Sound Health Care System, Seattle, USA;* ⁶*PolyOmica, The Netherlands.* ^MF and YT contributed equally to this work. *e-mail: tsepilov@bionet.nsc.ru
135. **A Search for Potential Anthelmintic Drugs Using the Model of *Opisthorchis felineus*-Induced Opisthorchiasis.** M. Tsyganov^{1*}, G. Vishnivetskaya¹, A. Kovner¹, I. Sorokina², A. Dushkin³, V. Mordvinov¹, D. Avgustinovich¹. ¹*Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia;* ²*N.N. Vorozhtsov Institute of Organic Chemistry, SB RAS, Novosibirsk, Russia;* ³*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia.* e-mail: tsyganov@bionet.nsc.ru

136. **Структурные Различия Микрорельефа Отолита Близких и Дальнеродственных Байкальских Ихтиотаксонов Методом Фрактального Анализа.** M.L. Tyagun*, A.A. Golovko**. *Limnological institute SB RAS, Russi; **Institute of Solar-Terrestrial Physics SB RAS, Russia. mary@lin.irk.ru, golovko@iszf.irk.ru
137. **Variability in Gibbs Energy of tRNA Molecules in Mitochondrial Genomes of Chordates: Neutral Selection or Evolution Towards Optimization of Translation?** K. Ushakova^{1*}, A.A. Mikhaylova¹, A.G. Mikhaylova¹, D. Knorre³, I. Mazunin¹, A. Reymond⁵, K. Gunbin^{1,4}, K. Popadin^{1,5**}. ¹The School of Life Sciences, Immanuel Kant Baltic Federal University, Kaliningrad, Russia; ²Institute of Biodiversity Animal Health and Comparative Medicine, University of Glasgow, Glasgow, UK; ³The A.N. Belozersky Institute Of Physico-Chemical Biology, MSU, Moscow, Russia; ⁴The Institute of Cytology and Genetics of the SB RAS, Novosibirsk, Russia; ⁵Center for Integrative Genomics, University of Lausanne, Lausanne, Switzerland. *e-mail: kristina.ushakova@outlook.ru, **e-mail: konstantinpopadin@gmail.com
138. **Analysis of Clinical Forms of Leg Lymphedema. Single-Center Experience.** D. Usmonov³, O. Saik^{2,3}, V. Nimaev^{1,3*}. ¹Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Russia; ²Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ³Novosibirsk State University, Novosibirsk, Russia. *e-mail: nimaev@gmail.com
139. **Weighted Interaction SNP Network for Samples of Individuals with High and Low Cognitive Abilities.** K. Vagaytseva*, A. Zarubin, O. Makeeva, V. Stepanov. Research Institute of Medical Genetics, Tomsk National Research Medical Center, Russia. *e-mail: kseniya.simonova@medgenetics.ru
140. **Chaos Theory as a Bioinformatics Promissory Instrument for a Human Organism Systemic Response in-Depth Study.** B.G. Vainer^{1,2}, A.V. Shepelin². ¹Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia. e-mail: BGV@isp.nsc.ru
141. **Up-to-date Digital Infrared Thermography in Biomedicine.** B.G. Vainer^{1,2}. ¹Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia. e-mail: BGV@isp.nsc.ru
142. **Pulse Wave Velocity Measurement in the Human Radial Artery.** B.G. Vainer^{1,2}. ¹Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia. e-mail: BGV@isp.nsc.ru
143. **Features of Spontaneous and Induced Mutagenesis in Somatic Cells Depends on DNA Repair Foci.** S.A. Vasilyev^{1*}, R.R. Savchenko¹, A.A. Murashkina², V.S. Fishman³, E.V. Sukhikh⁴, I.N. Lebedev¹. ¹Research Institute of Medical Genetics TNPMC, Tomsk, Russia; ²Tomsk State University, Tomsk, Russia; ³Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ⁴Tomsk Regional Oncology Center, Tomsk, Russia. *e-mail: stanislav.vasilyev@medgenetics.ru
144. **Analysis of Relationships Between Putative Genetic Markers and Immune Response in Patients with Uterine Myoma.** O. Volkova^{1*}, Yu. Kondrakhin², R. Sharipov^{3,4}, V. Prokofev¹, A. Shevchenko¹, V. Konenkov¹. ¹Institute of Cytology and Genetics, SB RAS, Novosibirsk, Russia; ²Institute of Computational Technologies, SB RAS, Novosibirsk, Russia; ³BIOSOFT.RU, Ltd, Novosibirsk, Russia; ⁴Novosibirsk State University, Novosibirsk, Russia. *e-mail: ov@bionet.nsc.ru
145. **Synthesis of caged NO and epinephrine compounds for optically controlled platelets activation.** A.Yu. Vorob'ev^{1,2}, O.Yu. Karmatskih¹, D.V. Spiriyova¹, A.E. Moskalensky^{1,3}. ¹Novosibirsk State University, Novosibirsk, Russia; ²N.N. Voroztsov Institute of Organic

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146. **Mechanisms of Inactivation of the TP53 Gene in Diffuse Large B-Cell Lymphoma.** E.N. Voropaeva^{1,2*}, T.I. Pospelova², M.I. Voevoda¹, V.N. Maksimov¹, O.B. Seregina². ¹IIPM – Branch of IC&G SB RAS, Novosibirsk, Russia; ²Novosibirsk State Medical University, Novosibirsk, Russia. *e-mail: vena.81@mail.ru
147. **Bone Mineral Density Changes in Patients with Hodgkin's Lymphoma.** M. Voytko^{1*}, T. Pospelova¹, V. Klimontov², O. Fazullina². ¹Novosibirsk State Medical University, Novosibirsk, Russia; ²Research Institute of Clinical and Experimental Lymphology – Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia. *e-mail: voytko.marie@yandex.ru
148. **Exome-Wide Search and Functional Annotation of Genes Associated with Severe Forms of Tick-Borne Encephalitis in Russians.** N.S. Yudin^{1,2*}, A.A. Yurchenko¹, M.I. Voevoda^{1,2}, E.V. Ignatieva^{1,2}. ¹Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia; ²Novosibirsk State University, Novosibirsk, Russia. *e-mail: yudin@bionet.nsc.ru
149. **Hypovitaminosis D as a Biomarker of Cardiovascular Risk in Patients with Rheumatoid Arthritis.** A. Zazdravnov. Kharkiv National Medical University, Kharkiv, Ukraine. e-mail: turisst2@meta.ua
150. **A Synonymous Variant in GCK Gene as a Cause of Gestational Diabetes Mellitus.** N. Zubkova^{1*}, P. Rubtsov², L. Ibragimova¹, E. Vasiliev¹, V. Petrov¹, A. Tiulpakov¹. ¹Endocrinology Research Centre, Moscow, Russia; ²Engelhardt Institute of Molecular Biology of Russian Academy of Sciences. *e-mail: nzubkova2017@gmail.com
151. **qGEPS: the Tool for Relative Quantification of Gene Expression in Paired Samples.** A. Zyablitsin, N. Melnikova, G. Krasnov, A. Dmitriev*. Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia. *e-mail: Alex_245@mail.ru