

**Сведения об официальных оппонентах
по диссертации Филипповой Анны Андреевны**

«Разработка метода мультиплексного определения транскриптов генов бета-лактамаз у
мультирезистентных бактерий Enterobacteriaceae»

Ф.И.О.: Дзантиев Борис Борисович

Ученая степень: доктор химических наук

Ученое звание: профессор

Научная специальность: 03.00.04 – «биохимия»

Должность: руководитель отдела лиганд-рецепторных взаимодействий и биосенсорики;
заведующий лабораторией иммунобиохимии

Место работы: Федеральный исследовательский центр «Фундаментальные основы
биотехнологии» Российской академии наук (ФИЦ Биотехнологии РАН)

Адрес места работы: 119071 Москва, Ленинский проспект, д. 33, стр. 2.

Тел.: 8-495-954-31-42

E-mail: dzantiev@inbi.ras.ru

Список основных научных публикаций по специальности 1.5.6. «Биотехнология» за
последние 5 лет:

1. Panferov V.G., Safenkova I.V., Varitsev Y.A., Zherdev A.V., **Dzantiev B.B.** Enhancement of lateral flow immunoassay by alkaline phosphatase a simple and highly sensitive test for potato virus X. *Microchimica Acta*. 2018, v. 185, N 1, article 25.
2. Razo S.C., Panferov V.G., Safenkova I.V., Varitsev Yu.V., Zherdev A.V., **Dzantiev B.B.** Double-enhanced lateral flow immunoassay for potato virus X based on a combination of magnetic and gold nanoparticles. *Analytica Chimica Acta*. 2018, v. 1007, p. 50-60.
3. Samokhvalov A.V., Safenkova I.V., Eremin S.A, Zherdev A.V., **Dzantiev B.B.** Measurement of (aptamer-small target) KD using the competition between fluorescently labeled and unlabeled target and the detection of fluorescence anisotropy. *Analytical Chemistry*. 2018, v. 90, N 15, p. 9189-9198.
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6. Panferov V.G., Safenkova I.V., Zherdev A.V., **Dzantiev B.B.** Urchin peroxidase-mimicking Au@Pt nanoparticles as a label in lateral flow immunoassay impact of nanoparticle composition on detection limit of *Clavibacter michiganensis*. *Microchimica Acta*, 2020, v. 187, article 268.
7. Safenkova I.V., Ivanov A.V., Slutskaya E.S., Samokhvalov A.V., Zherdev A.V., **Dzantiev B.B.** Key significance of DNA-target size in lateral flow assay coupled with recombinase polymerase amplification. *Analytica Chimica Acta*, 2020, v. 1102, p. 109-118.

8. Hedrickson O.D., Zvereva E.A., Vostrikova N.L., Chernukha I.M., **Dzantiev B.B.**, Zherdev A.V. Lateral flow immunoassay for sensitive detection of undeclared chicken meat in meat products. *Food Chemistry*, 2021, v. 344. Article 128598.
9. Ivanov A.V., Safenkova I.V., Zherdev A.V., **Dzantiev B.B.** Multiplex assay of viruses integrating recombinase polymerase amplification, barcode / anti-barcode pairs, blocking anti-primers, and lateral flow assay. *Analytical Chemistry*, 2021, v. 93, N 40, p. 13641-13650.
10. Panferov V.G, Byzova N.A., Biketov S.F., Zherdev A.V., **Dzantiev B.B.** Comparative study of in situ techniques to enlarge gold nanoparticles for highly sensitive lateral flow immunoassay of SARS-CoV-2. *Biosensors*, 2021, v. 11, N 7, article 229.
11. Panferov V.G., Safenkova I.V., Zherdev A.V., **Dzantiev B.B.** The steadfast Au@Pt soldier: Peroxide-tolerant nanozyme for signal enhancement in lateral flow immunoassay of peroxidase-containing samples. *Talanta*, 2021, v. 235, article 121961.
12. Ivanov A.V., Safenkova I.V., Zherdev A.V., **Dzantiev B.B.** DIRECT2: A novel platform for CRISPR-Cas12-based assay comprising universal DNA-IgG probe and a direct lateral flow test. *Biosensors and Bioelectronics*, 2022, v. 208, article 114227.
13. Safenkova I.V., Burkin K.M., Bodulev O.L., Razo S.C., Ivanov A.V., Zherdev A.V., **Dzantiev B.B.**, Sakharov I. Yu. Comparative study of magnetic beads and microplates as supports in heterogeneous amplified assay of miRNA-141 by using mismatched catalytic hairpin assembly reaction. *Talanta*, 2022, v. 247, article 123535.
14. Samokhvalov A.V., Safenkova I.V., Eremin S.A., Bonchuk A.N., Maximenko O.G., Sluchanko N.N., Zherdev A.V., **Dzantiev B.B.** Modulation of aptamer-ligand-binding by complementary oligonucleotides: A G-quadruplex anti-ochratoxin A aptamer case study. *International Journal of Molecular Sciences*, 2022, v. 23, N 9, article 4876.
15. Sotnikov D.V., Byzova N.A., Zherdev A.V., Xy Y., **Dzantiev B.B.** Silent antibodies start talking: Enhanced lateral flow serodiagnosis with two-stage incorporation of labels into immune complexes. *Biosensors*, 2022, v.12, N 7, article 434.

Ф.И.О.: Зверева Мария Эмильевна

Ученая степень: доктор химических наук

Ученое звание:

Научная специальность: 02.00.10 - Биоорганическая химия, 03.01.03 Молекулярная биология

Должность: профессор кафедры химии природных соединений

Место работы: Федеральное государственное бюджетное образовательное учреждение высшего образования МГУ имени М.В. Ломоносова, химический факультет

Адрес места работы: 119991, Москва, ГСП-1, Ленинские горы, д. 1, стр. 3

Тел.: +7(495) 939-15-98

E-mail: mzvereva@chem.msu.ru

Список основных научных публикаций по специальности 1.5.6. «Биотехнология» за последние 5 лет:

1. Hasanau Tsimur, Pisarev Eduard, Kisil Olga, Nonoguchi Naosuke, Calvez-Kelm Florence Le, **Zvereva Maria** (2022) Detection of TERT Promoter Mutations as a Prognostic Biomarker in Gliomas: Methodology, Prospects, and Advances. BIOMEDICINES, 10(3), 728
2. Rysenkova, K. D., Troyanovskiy, K. E., Klimovich, P. S., Bulyakova, T. R., Shelomentseva, E. M., Shmakova, A. A., Tanygina, D. Y., Ivashkina, O. I., Anokhin, K. V., Karagyaur, M. N., **Zvereva, M. I.**, Rubina, K. A., Tkachuk, V. A., Semina, E. V. (2022). Identification of a Novel Small RNA Encoded in the Mouse Urokinase Receptor uPAR Gene (Plaur) and Its Molecular Target Mef2d. Frontiers in molecular neuroscience, 15, 865858.
3. Pavlova, A. V., Kubareva, E. A., Monakhova, M. V., **Zvereva, M. I.**, Dolinnaya, N. G. (2021). Impact of G-Quadruplexes on the Regulation of Genome Integrity, DNA Damage and Repair. Biomolecules, 11(9), 1284.
4. Avogbe PH, Manel A., Vian E., Durand G., Forey N., Voegelé C., **Zvereva M.**, Hosen MI, Meziani S., De_Tilly B., Polo G., Lole O., Francois P., Delhomme TM, Carreira C., Monteiro-Reis S., Henrique R., Abedi-Ardekani B., Byrnes G., Foll M., Weiderpass E., McKay J., Jeronimo C., Scelo G., Le Calvez-Kelm F. (2019) Urinary TERT promoter mutations as non-invasive biomarkers for the comprehensive detection of urothelial cancer. EBIO MEDICINE, 44, 431-438
5. Maria Rubtsova, Yulia Naraykina, Daria Vasilkova, Mark Meerson, **Maria Zvereva**, Vladimir Prassolov, Vasily Lazarev, Valentin Manuvera, Sergey Kovalchuk, Nickolay Anikanov, Ivan Butenko, Olga Pobeguts, Vadim Govorun, Olga Dontsova (2018) Protein encoded in human telomerase RNA is involved in cell protective pathways. Nucleic Acids Research, 46(17), 8966-8977

Ф.И.О.: Сидоренко Сергей Владимирович

Ученая степень: доктор медицинских наук

Ученое звание: член-корр. РАН, профессор

Научная специальность: 03.02.03 Микробиология

Должность: заведующий Отделом медицинской микробиологии и молекулярной эпидемиологии

Место работы: Федеральное государственное бюджетное учреждение «Детский научно-клинический центр инфекционных болезней федерального медико-биологического агентства» (ФГБУ ДНКЦИБ ФМБА России)

Адрес места работы: 197022. Санкт-Петербург, ул. Профессора Попова, д.9.

Тел.: +7(812)347-49-13

E-mail: sidorserg@niidi.ru

Список основных научных публикаций по специальности 1.5.6. «Биотехнология» за последние 5 лет:

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2. Golikova MV, Alieva KN, Filimonova AV, Ageevets VA, Sulian OS, Avdeeva AA, Sidorenko SV, Zinner SH: Klebsiella pneumoniae Susceptibility to Carbapenem/Relebactam Combinations: Influence of Inoculum Density and Carbapenem-to-Inhibitor Concentration Ratio. *Biomedicines* 2022, 10:1454.
3. Ageevets V.A., Ageevets I.V., S.V. S: Convergence of multiple resistance and hypervirulence in Klebsiella pneumoniae Russian Journal of Infection and Immunity = Infektsiya i immunitet 2022, 12:450-460.
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5. Gostev V, Leyn S, Kruglov A, Likholetova D, Kalinogorskaya O, Baykina M, Dmitrieva N, Grigorievskaya Z, Pripitnevich T, Lyubasovskaya L, Gordeev A, Sidorenko S. et al: Global Expansion of Linezolid-Resistant Coagulase-Negative Staphylococci. *Frontiers in Microbiology* 2021, 12.
6. Gostev, V.; Kalinogorskaya, O.; Ivanova, K.; Kalisnikova, E.; Lazareva, I.; Starkova, P.; Sidorenko, S. In Vitro Selection of High-Level Beta-Lactam Resistance in Methicillin-Susceptible Staphylococcus aureus. *Antibiotics* 2021, 10, 637.
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9. Sidorenko, S.; Rennert, W.; Lobzin, Y.; Briko, N.; Kozlov, R.; Namazova-Baranova, L.; Tsvetkova, I.; Ageevets, V.; Nikitina, E.; Ardysheva, A.; et al. Multicenter study of serotype distribution of Streptococcus pneumoniae nasopharyngeal isolates from healthy children in the Russian Federation after introduction of PCV13 into the National Vaccination Calendar. *Diagnostic Microbiology and Infectious Disease* 2020, 96, 114914,
10. Lazareva, I.; Ageevets, V.; Sopova, J.; Lebedeva, M.; Starkova, P.; Likholetova, D.; Lebedeva, M.; Gostev, V.; Moiseenko, V.; Egorenkov, V.; et al. The emergence of hypervirulent blaNDM-1-positive Klebsiella pneumoniae sequence type 395 in an oncology hospital. *Infection, Genetics and Evolution* 2020, 85, 104527,
11. Wilcox, M.; Al-Obeid, S.; Gales, A.; Kozlov, R.; Martínez-Orozco, J.A.; Rossi, F.; Sidorenko, S.; Blondeau, J. Reporting elevated vancomycin minimum inhibitory concentration in methicillin-resistant Staphylococcus aureus: consensus by an International Working Group. *Future microbiology* 2019, 14, 345-352, doi:10.2217/fmb-2018-0346.
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carriage of *Neisseria meningitidis* in applicants to a military academy in the Russian Federation. *International Journal of Infectious Diseases* 2019, 81, 12-16, doi:10.1016/j.ijid.2018.12.012.

13. Gostev, V.; Sopova, J.; Kalinogorskaya, O.; Tsvetkova, I.; Lobzin, Y.; Klotchenko, S.; Sidorenko, S. In Vitro Ceftaroline Resistance Selection of Methicillin-Resistant *Staphylococcus aureus* Involves Different Genetic Pathways. *Microbial Drug Resistance* 2019, 25, 1401-1409, doi:10.1089/mdr.2019.0130.

14. Ageevets, V.; Lazareva, I.; Mrugova, T.; Gostev, V.; Lobzin, Y.; Sidorenko, S. IncX4 plasmids harbouring *mcr-1* genes: Further dissemination. *Journal of Global Antimicrobial Resistance* 2019, 18, 166-167.

15. Torumkuney, D.; Mayanskiy, N.; Edelstein, M.; Sidorenko, S.; Kozhevnikov, R.; Morrissey, I. Results from the Survey of Antibiotic Resistance (SOAR) 2014–16 in Russia. *Journal of Antimicrobial Chemotherapy* 2018, 73, v14-v21, doi:10.1093/jac/dky065.

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21. Arepyeva, M.A.; Kolbin, A.S.; Sidorenko, S.V.; Lawson, R.; Kurylev, A.A.; Balykina, Y.E.; Mukhina, N.V.; Spiridonova, A.A. A mathematical model for predicting the development of bacterial resistance based on the relationship between the level of antimicrobial resistance and the volume of antibiotic consumption. *Journal of Global Antimicrobial Resistance* 2017, 8, 148-156, doi:10.1016/j.jgar.2016.11.010.

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