

В диссертационный совет ПДС 0300.025
федеральное государственное автономное образовательное учреждение высшего
образования «Российский университет дружбы народов им. Патриса Лумумбы»

СВЕДЕНИЯ ОБ ОФИЦИАЛЬНОМ ОППОНЕНТЕ
по диссертации Дубовиченко Михаила Вадимовича на тему: **“Многофункциональные терапевтические
олигонуклеотиды для улучшения эффективности и селективности расщепления РНК”,**
специальность 1.5.4. Биохимия

Фамилия, Имя, Отчество	Год рождения	Основное место работы, должность	Ученая степень, звание	Специальность, по которой была защищена диссертация	Основные работы в рецензируемых научных изданиях за последние 5 лет по профилю оппонируемой диссертации
2	3	4	5	6	7
Коршун Владимир Аркадьевич	1966	ФГБУН ГНЦРФ Институт биоорганической химии им. академиков М.М. Шемякина и Ю.А. Овчинникова Российской академии наук, Отдел функционирования живых систем, Лаборатория молекулярного дизайна и синтеза, главный научный сотрудник	Доктор химических наук	Химические науки, 02.00.10. Биоорганическая химия	1. Kamzeeva P.N., Alferova V.A., Korshun V.A. , Varizhuk A.M., Aralov A.V. 5'-UTR G-quadruplex-mediated translation regulation in eukaryotes: current understanding and methodological challenges. <i>Int. J. Mol. Sci.</i> , 26 (3), 1187 (2025). https://doi.org/10.3390/ijms26031187 2. Maryewski X.A., Krasilnikov M.S., Straková P., Holoubek J., Frčková T., Panina I.S., Krylov N.A., Gvozdev D.A., Denisov V.S., Semenov A.N., Lotosh N.Y., Selishcheva A.A., Chistov A.A., Gulyak E.L., Kozhemyakin G.L., Korshun V.A. , Efremov R.G., Ustinov A.V., Růžek D., Eyer L., Alferova V.A. Membrane-active singlet oxygen photogenerators as a paradigm for broad-spectrum antivirals: the case of halogenated (BO _{ron})-DIPYromethenes. <i>ACS Appl. Mater. Interfaces</i> , 17 (3), 4502–4528 (2025). https://doi.org/10.1021/acsami.4c17482 3. Gulyak E.L., Brylev V.A., Zhitlov M.Y., Komarova O.A., Ustinov A.V., Sapozhnikova K.A., Alferova V.A., Korshun V.A. , Gvozdev D.A. Indocarbocyanine–indodicarbocyanine (sCy3–sCy5) absorptive interactions in conjugates and DNA duplexes. <i>Molecules</i> , 30 (1), 57 (2025). https://doi.org/10.3390/molecules30010057 4. Gulyak E.L., Komarova O.A., Prokopenko Y.A., Faizullina E.A., Malabuiok D.M., Ibragimova A.R., Mokrushina Y.A., Serova O.V., Popova G.P., Zhitlov M.Y., Nikitin T.D., Brylev V.A., Ustinov A.V., Alferova V.A., Korshun V.A. , Smirnov I.V., Terekhov S.S., Sapozhnikova K.A. Branched linkers for homogeneous antibody–

				drug conjugates: how long is long enough? <i>Int. J. Mol. Sci.</i>, 25 (24), 13356 (2024). https://doi.org/10.3390/ijms252413356 5. Alferova V.A., Baranova A.A., Belozerova O.A., Gulyak E.L., Mikhailov A.A., Solovov Y.V., Zhitlov M.Y., Sinichich A.A., Tyurin A.P., Trusova E.A., Beletsky A.V., Mardanov A.V., Ravin N.V., Lapchinskaya O.A., Korshun V.A., Gabibov A.G., Terekhov S.S. Molecular decoration and unconventional double bond migration in irumamycin biosynthesis. <i>Antibiotics</i>, 13 (12), 1167 (2024). https://doi.org/10.3390/antibiotics13121167 6. Brylev V.A., Ryabukhina E.V., Nazarova E.V., Samoylenkova N.S., Gulyak E.L., Sapozhnikova K.A., Dzarieva F.M., Ustinov A.V., Pronin I.N., Usachev D.Y., Kopylov A.M., Golovin A.V., Pavlova G.V., Ryazantsev D.Y., Korshun V.A. Towards aptamer-targeted drug delivery to brain tumors: the synthesis of ramified conjugates of an EGFR-specific aptamer with MMAE on a cathepsin B-cleavable linker. <i>Pharmaceutics</i>, 16 (11), 1434 (2024). https://doi.org/10.3390/pharmaceutics16111434 7. Kravchenko T.V., Paramonov A.S., Kudzhaev A.M., Efimova S.S., Khorev A.S., Kudryakova G.K., Ivanov I.A., Chistov A.A., Baranova A.A., Krasilnikov M.S., Lapchinskaya O.A., Tyurin A.P., Ostroumova O.S., Smirnov I.V., Terekhov S.S., Dontsova O.A., Shenkarev Z.O., Alferova V.A., Korshun V.A. Gausemycin antibiotic family acts via Ca²⁺-dependent membrane targeting. <i>J. Nat. Prod.</i>, 87 (3), 664–674 (2024). https://doi.org/10.1021/acs.jnatprod.3c00612 8. Gulyak E.L., Alferova V.A., Korshun V.A., Sapozhnikova K.A. Introduction of carbonyl groups into antibodies. <i>Molecules</i>, 28 (23), 7890 (2023). https://doi.org/10.3390/molecules28237890 9. Mikhnovets I.E., Holoubek J., Panina I.S., Kotouček J., Gvozdev D.A., Chumakov S.P., Krasilnikov M.S., Zhitlov M.Y., Gulyak E.L., Chistov A.A., Nikitin T.D., Korshun V.A., Efremov R.G., Alferova V.A., Růžek D., Eyer L., Ustinov A.V. Alkyl derivatives of perylene photosensitizing antivirals: towards understanding the influence of lipophilicity. <i>Int. J. Mol. Sci.</i>, 24 (22), 16483 (2023). https://doi.org/10.3390/ijms242216483 10. Mariewskaya K.A., Gvozdev D.A., Chistov A.A., Straková P., Huvarová I., Svoboda P., Kotouček J., Ivanov N.M., Krasilnikov M.S., Zhitlov M.Y., Pak A.M., Mikhnovets I.E.,
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					Nikitin T.D., Korshun V.A., Alferova V.A., Mašek J., Růžek D., Eyer L., Ustinov A.V. Membrane-targeting peryleneethynylphenols inactivate medically important coronaviruses via the singlet oxygen photogeneration mechanism. <i>Molecules</i>, 28 (17), 6278 (2023). https://doi.org/10.3390/molecules28176278 11. Baranova A.A., Tyurin A.P., Korshun V.A., Alferova V.A. Sensing of antibiotic–bacteria interactions. <i>Antibiotics</i>, 12 (8), 1340 (2023). https://doi.org/10.3390/antibiotics12081340 12. Kamzeeva P.N., Aralov A.V., Alferova V.A., Korshun V.A. Recent advances in molecular mechanisms of nucleoside antivirals. <i>Curr. Issues Mol. Biol</i>, 45 (8), 6851–6879 (2023). https://doi.org/10.3390/cimb45080433 13. Straková P., Bednář P., Kotouček J., Holoubek J., Fořtová A., Svoboda P., Štefánek M., Huvarová I., Šimečková P., Mašek J., Gvozdev D.A., Mikhnovets I.E., Chistov A.A., Nikitin T.D., Krasilnikov M.S., Ustinov A.V., Alferova V.A., Korshun V.A., Růžek D., Eyer L. Antiviral activity of singlet oxygen-generating perylene compounds against SARS-CoV-2: Interaction with the viral envelope and photodynamic virion inactivation. <i>Virus Res.</i>, 334, 199158 (2023). https://doi.org/10.1016/j.virusres.2023.199158 14. Baranova A.A., Alferova V.A., Korshun V.A., Tyurin A.P. Modern trends in natural antibiotic discovery. <i>Life</i>, 13 (5), 1073 (2023). https://doi.org/10.3390/life13051073 15. Sapozhnikova K.A., Gulyak E.L., Brylev V.A., Misyurin V.A., Oreshkov S.D., Alexeeva A.V., Ryazantsev D.Y., Simonova M.A., Ryabukhina E.V., Popova G.P., Tikhonova N.A., Lyzhko N.A., Barmashov A.E., Misyurin A.V., Ustinov A.V., Alferova V.A., Korshun V.A. Aminoxy click modification of a periodate-oxidized immunoglobulin G: a general approach to antibody–drug conjugates with dye-mediated expeditious stoichiometry control. <i>Int. J. Mol. Sci.</i>, 24 (6), 5134 (2023). https://doi.org/10.3390/ijms24065134 16. Alferova V.A., Maviza T.P., Biryukov M.V., Zakalyukina Y.V., Polshakov V.I., Sergiev P.V., Korshun V.A., Osterman I.A. Characterization of a novel natural tetracenomycin reveals crucial role of 4-hydroxy group in ribosome binding. <i>Biochimie</i>, 206, 150–153 (2023). https://doi.org/10.1016/j.biochi.2022.10.016 17. Veryutin D.A., Doroshenko I.A., Martynova E.A.,
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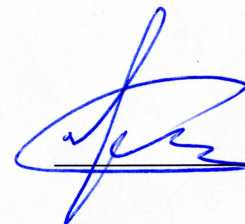
				Sapozhnikova K.A., Svirshchevskaya E.V., Shibaeva A.V., Markova A.A., Chistov A.A., Borisova N.E., Shuvalov M.V., Korshun V.A., Alferova V.A., Podrugina T.A. Probing tricarboxyanine dyes for targeted delivery of anthracyclines. <i>Biochimie</i>, 206, 12–23 (2023). https://doi.org/10.1016/j.biochi.2022.09.015 18. Sapozhnikova K.A., Gulyak E.L., Misyurin V.A., Simonova M.A., Ryabukhina E.V., Alexeeva A.V., Tikhonova N.A., Lyzhko N.A., Popova G.P., Misyurin A.V., Ustinov A.V., Korshun V.A., Alferova V.A., Ryazantsev D.Y., Brylev V.A. Branched linkers for site-specific fluorescent labeling of antibodies. <i>Molecules</i>, 28 (1), 425 (2023). https://doi.org/10.3390/molecules28010425 19. Chistov A.A., Chumakov S.P., Mikhnovets I.E., Nikitin T.D., Slesarchuk N.A., Uvarova V.I., Rubekina A.A., Nikolaeva Y.V., Radchenko E.V., Khvatov E.V., Orlov A.A., Frolenko V.S., Sukhorukov M.V., Kolpakova E.S., Shustova E.Y., Galochkina A.V., Streshnev P.P., Osipov E.M., Sapozhnikova K.A., Moiseenko A.V., Brylev V.A., Proskurin G.V., Dokukin Y.S., Kutyakov S.V., Aralov A.V., Korshun V.A., Strelkov S.V., Palyulin V.A., Ishmukhametov A.A., Shirshin E.A., Osolodkin D.I., Shtro A.A., Kozlovskaya L.I., Alferova V.A., Ustinov A.V. 5-(Perylen-3-ylethynyl)uracil as an antiviral scaffold: potent suppression of enveloped virus reproduction by 3-methyl derivatives <i>in vitro</i>. <i>Antivir. Res.</i>, 209, 105508 (2023). https://doi.org/10.1016/j.antiviral.2022.105508 20. Il'in V.A., Pyzhik E.V., Balakhonov A.B., Kiryushin M.A., Shcherbatovva E.V., Kuznetsov A.A., Kostin P.A., Golovin A.V., Korshun V.A., Brylev V.A., Sapozhnikova K.A., Kopylov A.M., Pavlova G.V., Pronin I.N. Radiochemical synthesis of 4-^[18F]fluorobenzylazide and its conjugation with EGFR-specific aptamers. <i>Molecules</i>, 28 (1), 294 (2023). https://doi.org/10.3390/molecules28010294 21. Baranova A.A., Zakalyukina Y.V., Ovcharenko A.A., Korshun V.A., Tyurin A.P. Antibiotics from insect-associated actinobacteria. <i>Biology</i>, 11 (11), 1676 (2022). https://doi.org/10.3390/biology11111676 22. Shtro A.A., Garshinina A.V., Alferova V.A., Kamzeeva P.N., Volok V.P., Kolpakova E.S., Nikitin T.D., Chistov A.A.,
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				Belyaev E.S., Korshun V.A., Kozlovskaya L.I., Aralov A.V. Cationic perylene antivirals with aqueous solubility for studies in vivo. <i>Pharmaceuticals</i>, 15 (10), 1178 (2022). https://doi.org/10.3390/ph15101178 23. Alferova V.A., Maviza T.P., Biryukov M.V., Zakalyukina Y.V., Lukianov D.A., Skvortsov D.A., Vasilyeva L.A., Tashlitsky V.N., Polshakov V.I., Sergiev P.V., Korshun V.A., Osterman I.A. Biological evaluation and spectral characterization of a novel tetracenomycin X congener. <i>Biochimie</i>, 192, 63–71 (2022). https://doi.org/10.1016/j.biochi.2021.09.014 24. Sapozhnikova K.A., Misyurin A.V., Ryazantsev D.Y., Kokin E.A., Finashutina Y.P., Alexeeva A.V., Ivanov I.A., Kocharovskaya M.V., Tikhonova N.A., Popova G.P., Alferova V.A., Ustinov A.V., Korshun V.A., Brylev V.A. Sensitive immunofluorescent detection of the PRAME antigen using a practical antibody conjugation approach. <i>Int. J. Mol. Sci.</i>, 22 (23), 12845 (2021). https://www.mdpi.com/1422-0067/22/23/12845 25. Tyurin A.P., Alferova V.A., Paramonov A.S., Shuvalov M.V., Kudryakova G.K., Rogozhin E.A., Zhrebker A.Y., Brylev V.A., Chistov A.A., Baranova A.A., Biryukov M.V., Ivanov I.A., Prokhorenko I.A., Grammatikova N.E., Kravchenko T.V., Isakova E.B., Mirchink E.P., Gladkikh E.G., Svirshchevskaya E.V., Mardanov A.V., Beletsky A.V., Kocharovskaya M.V., Kulyaeva V.V., Shashkov A.S., Tsvetkov D.E., Nifantiev N.E., Apt A.S., Majorov K.B., Efimova S.S., Ravin N.V., Nikolaev E.N., Ostroumova O.S., Katrukha G.S., Lapchinskaya O.A., Dontsova O.A., Terekhov S.S., Osterman I.A., Shenkarev Z.O., Korshun V.A. Gausemycins A,B: cyclic lipoglycopeptides from <i>Streptomyces</i> sp. <i>Angew. Chem. Int. Ed.</i>, 60 (34), 18694–18703 (2021). https://doi.org/10.1002/anie.202104528 26. Mariewskaya K.A., Tyurin A.P., Chistov A.A., Korshun V.A., Alferova V.A., Ustinov A.V. Photosensitizing antivirals. <i>Molecules</i>, 26 (13), 3971 (2021). https://doi.org/10.3390/molecules26133971 27. Baranova A.A., Chistov A.A., Shuvalov M.V., Tyurin A.P., Biryukov M.V., Ivanov I.A., Sadykova V.S., Kurakov A.V., Sergeeva A.I., Korshun V.A., Alferova V.A. Identification of isocyclosporins by collision-induced dissociation of doubly protonated species. <i>Talanta</i>, 225, 121930 (2021). https://doi.org/10.1016/j.talanta.2020.121930
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					28. Kozlovskaya L.I., Volok V.P., Shtro A.A., Nikolaeva Y.V., Chistov A.A., Matyugina E.S., Belyaev E.S., Jegorov A.V., Snoeck R., Korshun V.A., Andrei G., Osolodkin D.I., Ishmukhametov A.A., Aralov A.A. Phenoxazine nucleoside derivatives with a multiple activity against RNA and DNA viruses. <i>Eur. J. Med. Chem.</i>, 220, 113467 (2021). https://doi.org/10.1016/j.ejmech.2021.113467 29. Aparin I.O., Sergeeva O.V., Mishin A.S., Khaydukov E.V., Korshun V.A., Zatsepin T.S. Excimer-FRET Cascade in dual DNA probes: open access to large Stokes shift, enhanced acceptor light up, and robust RNA sensing. <i>Anal. Chem.</i>, 92 (10), 7028–7036 (2020). https://doi.org/10.1021/acs.analchem.0c00270 30. Brylev V.A., Ustinov A.V., Tsvetkov V.B., Barinov N.A., Aparin I.O., Sapozhnikova K.A., Berlina Y.Y., Kokin E.A., Klinov D.V., Zatsepin T.S., Korshun V.A. Toehold-mediated selective assembly of compact discrete DNA nanostructures. <i>Langmuir</i>, 36 (49), 15119–15127 (2020). https://doi.org/10.1021/acs.langmuir.0c02696
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Согласен на обработку персональных данных.

Официальный оппонент: Коршун Владимир Аркадьевич, д.х.н.



25.02.2025 г.

личную подпись:
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