

Сведения об официальном оппоненте

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Список основных публикаций по теме диссертации за последние 5 лет:

1. Suslov E., Zarubaev V.V., Slita A.V., Ponomarev K., Korchagina D., Ayine-Tora D.M., Reynisson J., Volcho K., Salakhutdinov N. Anti-influenza activity of diazaadamantanes combined with monoterpene moieties // *Bioorg. Med. Chem. Lett.* – 2017. – V. 27. – P. 4531–4535. doi: 10.1016/j.bmcl.2017.08.062.
2. Плына I.V., Zarubaev V.V., Lavrentieva I.N., Shtro A.A., Esaulkova I.L., Korchagina D.V., Borisevich S.S., Volcho K.P., Salakhutdinov N.F. Highly potent activity of isopulegol-derived substituted octahydro-2H-chromen-4-ols against influenza A and B viruses // *Bioorg. Med. Chem. Lett.* – 2018. – V. 28. – P. 2061–2067. doi: 10.1016/j.bmcl.2018.04.057.
3. Kulikova E.A., Khotskin N.V., Illarionova N.B., Sorokin I.E., Bazhenova E.Y., Kondaurova E.M., Volcho K.P., Khomenko T.M., Salakhutdinov N.F., Ponimaskin E., Naumenko V.S., Kulikov A.V. Inhibitor of Striatal-Enriched Protein Tyrosine Phosphatase, 8-(Trifluoromethyl)-1,2,3,4,5-Benzopentathiepin-6-Amine hydrochloride (TC-2153), Produces Antidepressant-Like Effect and Decreases Functional Activity and Protein Level of 5-HT_{2A} Receptor in the Brain // *Neuroscience.* – 2018. – V. 394. – P. 220–231. doi: 10.1016/j.neuroscience.2018.10.031.
4. Sidorova Y.A., Volcho K.P., Salakhutdinov N.F. Neuroregeneration in Parkinson's Disease: From Proteins to Small Molecules // *Curr. Neuropharmacol.* – 2019. – V. 17. – P. 268–287. doi: 10.2174/1570159X16666180905094123.
5. Mozhaitsev E.S., Zakharenko A.L., Suslov E.V., Korchagina D.V., Zakharova O.D., Vasil'eva I.A., Chepanova A.A., Black E., Patel J., Chand R., Reynisson J., Leung I.K.H., Volcho K.P., Salakhutdinov N.F., Lavrik O.I. Novel Inhibitors of DNA Repair Enzyme TDP1 Combining Monoterpenoid and Adamantane Fragments // *Anticancer Agents Med. Chem.* – 2019. – V. 19. – P. 463–472. doi: 10.2174/1871520619666181207094243.
6. Zakharenko A.L., Luzina O.A., Sokolov D.N., Kaledin V.I., Nikolin V.P., Popova N.A., Patel J., Zakharova O.D., Chepanova A.A., Zafar A., Reynisson J., Leung E., Leung I.K.H., Volcho K.P., Salakhutdinov N.F., Lavrik O.I. Novel tyrosyl-DNA

- phosphodiesterase 1 inhibitors enhance the therapeutic impact of topotecan on in vivo tumor models // *Eur. J. Med. Chem.* – 2019. – V. 161. – P. 581–593. doi: 10.1016/j.ejmech.2018.10.055.
7. Ardashov O.V., Pavlova A.V., Mahato A.K., Sidorova Y., Morozova E.A., Korchagina D.V., Salnikov G.E., Genaev A.M., Patrusheva O.S., Li-Zhulanov N.S., Tolstikova T.G., Volcho K.P., Salakhutdinov N.F. A Novel Small Molecule Supports the Survival of Cultured Dopamine Neurons and May Restore the Dopaminergic Innervation of the Brain in the MPTP Mouse Model of Parkinson's Disease // *ACS Chem Neurosci.* – 2019. – V. 10. – P. 4337–4349. doi: 10.1021/acchemneuro.9b00396.
 8. Telegina D.V., Kulikova E.A., Kozhevnikova O.S., Kulikov A.V., Khomenko T.M., Volcho K.P., Salakhutdinov N.F., Kolosova N.G. Alterations of STEP46 and STEP61 Expression in the Rat Retina with Age and AMD-Like Retinopathy Development // *Int. J. Mol. Sci.* – 2020. – V. 21. – P. 5182. doi: 10.3390/ijms21155182.
 9. Suslov E.V., Mozhaytsev E.S., Korchagina D.V., Bormotov N.I., Yarovaya O.I., Volcho K.P., Serova O.A., Agafonov A.P., Maksyutov R.A., Shishkina L.N., Salakhutdinov N.F. New chemical agents based on adamantane-monoterpene conjugates against orthopoxvirus infections // *RSC Med Chem.* – 2020. – V. 11. – P. 1185–1195. doi: 10.1039/d0md00108b.
 10. Salomatina O.V., Popadyuk I.I., Zakharenko A.L., Zakharova O.D., Chepanova A.A., Dyrkheeva N.S., Komarova N.I., Reynisson J., Anarbaev R.O., Salakhutdinov N.F., Lavrik O.I., Volcho K.P. Deoxycholic acid as a molecular scaffold for tyrosyl-DNA phosphodiesterase 1 inhibition: A synthesis, structure-activity relationship and molecular modeling study // *Steroids.* – 2021. – V. 165. – P. 108771. doi: 10.1016/j.steroids.2020.108771.
 11. Neganova M., Aleksandrova Y., Suslov E., Mozhaitsev E., Munkuev A., Tsypyshev D., Chicheva M., Rogachev A., Sukocheva O., Volcho K., Klochkov S. Novel Multitarget Hydroxamic Acids with a Natural Origin CAP Group against Alzheimer's Disease: Synthesis, Docking and Biological Evaluation // *Pharmaceutics.* – 2021. – V. 13. – P. 1893. doi: 10.3390/pharmaceutics13111893.
 12. Suslov E.V., Ponomarev K.Y., Patrusheva O.S., Kuranov S.O., Okhina A.A., Rogachev A.D., Munkuev A.A., Ottenbacher R.V., Dalinger A.I., Kalinin M.A., Vatsadze S.Z., Volcho K.P., Salakhutdinov N.F. Novel Bispidine-Monoterpene Conjugates-Synthesis and Application as Ligands for the Catalytic Ethylation of Chalcones // *Molecules.* – 2021. – V. 26. – P. 7539. doi: 10.3390/molecules26247539.

13. Khomenko T.M., Shtro A.A., Galochkina A.V., Nikolaeva Y.V., Petukhova G.D., Borisevich S.S., Korchagina D.V., Volcho K.P., Salakhutdinov N.F. Monoterpene-Containing Substituted Coumarins as Inhibitors of Respiratory Syncytial Virus (RSV) Replication // *Molecules*. – 2021. – V. 26. – P. 7493. doi: 10.3390/molecules26247493.
14. Moskaliuk V.S., Kozhemyakina R.V., Bazovkina D.V., Terenina E., Khomenko T.M., Volcho K.P., Salakhutdinov N.F., Kulikov A.V., Naumenko V.S., Kulikova E. On an association between fear-induced aggression and striatal-enriched protein tyrosine phosphatase (STEP) in the brain of Norway rats // *Biomed. Pharmacother.* – 2022. – V. 147. – P. 112667. doi: 10.1016/j.biopha.2022.112667.

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