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Адрес

Федеральное государственное
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Контакты

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Образование

1999– 2004	Россия, Москва	МГУ им. М.В. Ломоносова, биологический факультет, кафедра биоорганической химии	Диплом по специальности «биохимия» с отличием
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Преподавание

2005– наст.вр.	Россия, Москва	МГУ им. М.В. Ломоносова, биологический факультет, кафедра биоорганической химии	Молекулярные механизмы мембранного транспорта
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Работа в ИБХ

2017–наст.вр.	Главный научный сотрудник
	Старший научный сотрудник
2026–2026	Доцент

Членство в советах и комиссиях ИБХ

Ученый совет

Владение языками

русский, английский

Награды

2016	Премия Правительства Москвы молодым ученым	За изучение разнообразия природных блокаторов калиевых каналов и создание молекулярных инструментов для фундаментальных исследований и скрининговых систем на их основе
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Степени и звания

Кандидат наук (Химические науки, 02.00.10 — Биоорганическая химия)

Гранты и проекты

2014– 2016	Молекулярные основы действия животных ядов
2022– 2024	Модуляторы мутантных натриевых каналов

2020– [Получение селективных блокаторов калиевого канала человека Kv1.3](#)
2022

2020– [Лиганды ионных каналов с уникальной селективностью](#)
2022

2019– [Токсины из природных ядов модулируют болевую сенситизацию в чувствительных нейронах](#)
2022 [посредством механизмов, не зависящих от деполяризации](#)

Публикации

1. Tikhonova TB, Sharkov AA, Murtazina AF, Mashkovtseva NV, Zhorov BS, **Vassilevski AA** (2026). Missense mutation causes multiple defects in Nav1.4 channel gating and leads to an SCN4A-associated overlap phenotype. *J Gen Physiol* 158 (3), , [10.1085/jgp.202413706](#)
2. Iunusova VA, Orlov NA, Nekrasova OV, Feofanov AV, **Vassilevski AA**, Kuzmenkov AI (2025). Targeting prokaryotic ion channel by a chimera of fluorescent protein and artificial peptide toxin. *BIOCHIM BIOPHYS ACTA* 1867 (8), 184458, [10.1016/j.bbamem.2025.184458](#)
3. Mozhaeva VA, **Vassilevski AA**, Starkov VG, Kudryavtsev DS, Prokhorov KA, Garnov SV, Utkin YN (2025). Identification of animal venoms by Raman spectroscopy combined with principal component analysis. *Microchem J* 219, , [10.1016/j.microc.2025.115966](#)
4. Kuzmenkov AI, Chudetsky IS, Kudryavtsev DS, Kasheverov IE, Tsetlin VI, **Vassilevski AA** (2025). Molecular Probes for the Visualization of Nicotinic Acetylcholine Receptors Based on Snake Three-Finger Toxins and Red Fluorescent Protein. *Russ. J. Bioorganic Chem.* 51 (5), 1936–1944, [10.1134/S1068162025601673](#)
5. Kuzmenkov AI, Iunusova VA, Lushpa VA, Deyev YA, Babenko VV, Osipov DV, Berkut AA, Tytgat J, Bocharov EV, Adams DJ, Finol-Urdaneta RK, **Vassilevski AA** (2025). Spider venom peptides with unique fold selectively block Shaker-type potassium channels. *Cell Mol Life Sci* 82 (1), 300, [10.1007/s00018-025-05778-7](#)
6. Aleksandrova EV, Syroegin EA, Basu RS, **Vassilevski AA**, Gagnon MG, Polikanov YS (2025). Mechanism of release factor-mediated peptidyl-tRNA hydrolysis on the ribosome. *Science* 388 (6753), eads9030, [10.1126/science.ads9030](#)
7. Nikolaev M, Gataulina E, Fedorova I, Baleeva N, Baranov M, **Vassilevski A**, Tikhonov D (2025). Optical control of calcium-permeable AMPA receptors by azobenzene-spermines. *Br J Pharmacol* 182 (21), 5173–5191, [10.1111/bph.70111](#)
8. Trofimov YA, Chugunov AO, **Vassilevski AA** (2025). Secondary chelation through shared water provides ion selectivity in bacterial sodium channels. *Structure* 33 (8), 1446–1456.e3, [10.1016/j.str.2025.05.010](#)
9. Egorkin NA, Aleksin AM, Sedlov IA, Zhiganov NI, Bodunova DV, Varfolomeeva LA, Slonimskiy YB, Ziganshin RH, Popov VO, Boyko KM, **Vassilevski AA**, Maksimov EG, Sluchanko NN (2025). A green dichromophoric protein enabling foliage mimicry in arthropods. *Proc Natl Acad Sci U S A* 122 (23), e2502567122, [10.1073/pnas.2502567122](#)
10. Gigolaev AM, Iureva DA, Lagosha SV, Brazhe AR, Zhorov BS, **Vassilevski AA** (2025). Golden Gate cloning enables efficient concatemer construction for biophysical analysis of heterozygous potassium channel variants from patients with epilepsy. *Int J Biol Macromol* 307 (Pt 3), 141802, [10.1016/j.ijbiomac.2025.141802](#)
11. Volkov AE, Gigolaev AM, Iunusova VA, Ziganshin RH, Kuzmenkov AI, **Vassilevski AA** (2025). High-affinity blocker of insect potassium channels from the venom of the scorpion *Orthochirus scrobiculosus*. *J Evol Biochem Physiol* 61 (1), 177–186, [10.1134/S0022093025010144](#)
12. Scherbakov KA, **Vassilevski AA**, Chugunov AO (2025). Potassium channel selectivity is determined by square antiprismatic ion chelation. *Int J Biol Macromol* 305 (Pt 1), 140690, [10.1016/j.ijbiomac.2025.140690](#)
13. Oparin P, Khokhlova O, Cherkashin A, Nadezhdin K, Palikov V, Palikova Y, Korolkova Y, Mosharova I, Rogachevskaja O, Baranov M, Shaidullova K, Ermakova E, Lushpa V, Bruter A, Deykin A, Ivanova E, Silaeva Y, Dyachenko I, Bocharov E, Sitdikova G, Andreev-Andrievskiy A, Poteryaev D, Shuster A, Murashev A, Kolesnikov S, Stepanenko V, Grishin E, **Vassilevski AA** (2025). Potent painkiller from spider venom antagonizes P2X3 receptors without dysgeusia. *Mol Ther* 33 (2), 771–785, [10.1016/j.ymthe.2024.12.036](#)
14. Tikhonova TB, Sharkov AA, Zhorov BS, **Vassilevski AA** (2024). Diverse biophysical mechanisms in voltage-gated sodium channel Nav1.4 variants associated with myotonia. *FASEB J* 38 (16), e23883,

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18. Oparin PB, Nikodimov SS, **Vassilevski AA** (2023). Venoms with oral toxicity towards insects. *Toxicon* 235, 107308, [10.1016/j.toxicon.2023.107308](https://doi.org/10.1016/j.toxicon.2023.107308)
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20. Kuzmenkov AI, Gigolaev AM, Pinheiro-Junior EL, Peigneur S, Tytgat J, **Vassilevski AA** (2023). Methionine-isoleucine dichotomy at a key position in scorpion toxins inhibiting voltage-gated potassium channels. *Toxicon* 231, 107181, [10.1016/j.toxicon.2023.107181](https://doi.org/10.1016/j.toxicon.2023.107181)
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23. Gigolaev AM, Pinheiro-Junior EL, Peigneur S, Tytgat J, **Vassilevski AA** (2022). KV1.2-Selective Peptide with High Affinity. *J Evol Biochem Physiol* 58 (12), 2048–2057, [10.1134/S002209302206031X](https://doi.org/10.1134/S002209302206031X)
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33. Føns S, Ledsgaard L, Nikolaev MV, **Vassilevski AA**, Sørensen CV, Chevalier MK, Fiebig M, Laustsen AH (2020). Discovery of a Recombinant Human Monoclonal Immunoglobulin G Antibody Against α -Latrotoxin From the Mediterranean Black Widow Spider (*Latrodectus tredecimguttatus*). *Front Immunol* 11, 587825, [10.3389/fimmu.2020.587825](https://doi.org/10.3389/fimmu.2020.587825)
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35. (конференция) **Vassilevski A** (2020). P2X3 receptor antagonists from spider venom. *Toxicon* 177 Suppl 1, S3, [10.1016/j.toxicon.2019.10.017](https://doi.org/10.1016/j.toxicon.2019.10.017)
36. (конференция) Kasheverov IE, Oparin PB, **Vassilevski AA**, Ivanov IA, Tsetlin VI, Utkin YN (2020). Channel blockers from scorpion venoms inhibit nicotinic acetylcholine receptors. *Toxicon* 177 Suppl 1, S11, [10.1016/j.toxicon.2019.10.049](https://doi.org/10.1016/j.toxicon.2019.10.049)
37. (книга) Dunaevsky YE, Khadeeva NV, **Vassilevski AA**, Domash VI, Belozersky MA (2020). Proteinase Inhibitors From Buckwheat (*Fagopyrum esculentum* Moench) Seeds. , 521–532, [10.1016/B978-0-12-818553-7.00036-X](https://doi.org/10.1016/B978-0-12-818553-7.00036-X)
38. Кузьменков АИ, Пеньёр С, Титгат Я, **Василевский АА** (2019). Фармакологическая характеристика пептидных лигандов калиевых каналов MeKTx13-2 и MeKTx13-3 из яда скорпиона *Mesobuthus eupeus*. *Ross Fiziol Zh Im I M Sechenova* 105 (11), 1452–1462, [10.1134/S0869813919110074](https://doi.org/10.1134/S0869813919110074)
39. Berkut AA, Chugunov AO, Mineev KS, Peigneur S, Tabakmakher VM, Krylov NA, Oparin PB, Lihonosova AF, Novikova EV, Arseniev AS, Grishin EV, Tytgat J, Efremov RG, **Vassilevski AA** (2019). Protein Surface Topography as a tool to enhance the selective activity of a potassium channel blocker. *J Biol Chem* 294 (48), 18349–18359, [10.1074/jbc.RA119.010494](https://doi.org/10.1074/jbc.RA119.010494)
40. Myshkin MY, Männikkö R, Krumkacheva OA, Kulbatskii DS, Chugunov AO, Berkut AA, Paramonov AS, Shulepko MA, Fedin MV, Hanna MG, Kullmann DM, Bagryanskaya EG, Arseniev AS, Kirpichnikov MP, Lyukmanova EN, **Vassilevski AA**, Shenkarev ZO (2019). Cell-Free Expression of Sodium Channel Domains for Pharmacology Studies. Noncanonical Spider Toxin Binding Site in the Second Voltage-Sensing Domain of Human Nav1.4 Channel. *Front Pharmacol* 10, 953, [10.3389/fphar.2019.00953](https://doi.org/10.3389/fphar.2019.00953)
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42. Tabakmakher VM, Krylov NA, Kuzmenkov AI, Efremov RG, **Vassilevski AA** (2019). Kalium 2.0, a comprehensive database of polypeptide ligands of potassium channels. *Sci Data* 6 (1), 73, [10.1038/s41597-019-0074-x](https://doi.org/10.1038/s41597-019-0074-x)
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45. Kuzmenkov AI, Nekrasova OV, Peigneur S, Tabakmakher VM, Gigolaev AM, Fradkov AF, Kudryashova KS, Chugunov AO, Efremov RG, Tytgat J, Feofanov AV, **Vassilevski AA** (2018). K1.2 channel-specific blocker from *Mesobuthus eupeus* scorpion venom: Structural basis of selectivity. *Neuropharmacology* 143, 228–238, [10.1016/j.neuropharm.2018.09.030](https://doi.org/10.1016/j.neuropharm.2018.09.030)
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