

## Резюме: Василевский Александр Александрович



### Адрес

Федеральное государственное  
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Институт биоорганической химии им.  
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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

## Членство в советах и комиссиях ИБХ

Ученый совет

## Владение языками

русский, английский

## Награды

2016	<a href="#">Премия Правительства Москвы молодым ученым</a>	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	<a href="#">Молекулярные основы действия животных ядов</a>
2022– 2024	<a href="#">Модуляторы мутантных натриевых каналов</a>
2020– 2022	<a href="#">Получение селективных блокаторов калиевого канала человека Kv1.3</a>

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

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

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## Публикации

1. 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](#)
2. 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](#)
3. 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](#)
4. 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](#)
5. 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, [10.1096/fj.202400867R](#)
6. Chernykh MA, Duzheva MA, Kuldyshev NA, Peigneur S, Berkut AA, Tytgat J, **Vassilevski AA**, Chugunov AO (2024). Scorpion Neurotoxin BeM9 Derivative Uncovers Unique Interaction Mode with Nav1.5 Sodium Channel Isoform. *Russ. J. Bioorganic Chem.* 50 (4), 1341–1350, [10.1134/S1068162024040083](#)
7. Zavarzina II, Kuzmenkov AI, Dobrokhotov NA, Maleeva EE, Korolkova YV, Peigneur S, Tytgat J, Krylov NA, **Vassilevski AA**, Chugunov AO (2024). The scorpion toxin BeKm-1 blocks hERG cardiac potassium channels using an indispensable arginine residue. *FEBS Lett* 598 (8), 889–901, [10.1002/1873-3468.14850](#)
8. Ojomoko LO, Kryukova EV, Egorova NS, Salikhov AI, Epifanova LA, Denisova DA, Khomutov AR, Sukhov DA, **Vassilevski AA**, Khomutov MA, Tsetlin VI, Shelukhina IV (2023). Inhibition of nicotinic acetylcholine receptors by oligoarginine peptides and polyamine-related compounds. *Front Pharmacol* 14 (14), 1327603, [10.3389/fphar.2023.1327603](#)
9. Oparin PB, Nikodimov SS, **Vassilevski AA** (2023). Venoms with oral toxicity towards insects. *Toxicon* 235, 107308, [10.1016/j.toxicon.2023.107308](#)
10. Krylov NA, Tabakmakher VM, Yureva DA, **Vassilevski AA**, Kuzmenkov AI (2023). Kalium 3.0 is a comprehensive depository of natural, artificial, and labeled polypeptides acting on potassium channels. *Protein Sci* 32 (11), e4776, [10.1002/pro.4776](#)
11. 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](#)
12. Mineev KS, Chernykh MA, Motov VV, Prudnikova DA, Pavlenko DM, Kuzmenkov AI, Peigneur S, Tytgat J, **Vassilevski AA** (2023). A scorpion toxin affecting sodium channels shows double cis–trans isomerism. *FEBS Lett* 597 (18), 2358–2368, [10.1002/1873-3468.14705](#)
13. Gigolaev AM, Tabakmakher VM, Peigneur S, Tytgat J, **Vassilevski AA** (2023). Structural Optimization of an  $\alpha$ -Hairpinin Blocking Potassium Channels KV1.3. *J Evol Biochem Physiol* 59 (1), 192–199, [10.1134/S0022093023010167](#)
14. 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](#)
15. Kuzmenkov AI, Peigneur S, Nasburg JA, Mineev KS, Nikolaev MV, Pinheiro-Junior EL, Arseniev AS, Wulff H,

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  17. Kasheverov IE, Kuzmenkov AI, Kudryavtsev DS, Chudetskiy IS, Shelukhina IV, Barykin EP, Иванов Ivanov IA, Siniavin AE, Ziganshin RH, Baranov MS, Tsetlin VI, **Vassilevski AA**, Utkin YN (2021). Snake Toxins Labeled by Green Fluorescent Protein or Its Synthetic Chromophore are New Probes for Nicotinic acetylcholine Receptors. *Front Mol Biosci* 8 (8), 753283, [10.3389/fmolb.2021.753283](https://doi.org/10.3389/fmolb.2021.753283)
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32. Kasheverov IE, Oparin PB, Zhmak MN, Egorova NS, Ivanov IA, Gigolaev AM, Nekrasova OV, Serebryakova MV, Kudryavtsev DS, Prokopev NA, Hoang AN, Tsetlin VI, **Vassilevski AA**, Utkin YN (2019). Scorpion toxins interact with nicotinic acetylcholine receptors. *FEBS Lett* 593 (19), 2779–2789, [10.1002/1873-3468.13530](https://doi.org/10.1002/1873-3468.13530)
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  35. Utkin Y, **Vassilevski A**, Kudryavtsev D, Undheim EAB (2019). Editorial: Animal Toxins as Comprehensive Pharmacological Tools to Identify Diverse Ion Channels. *Front Pharmacol* 10 (APR), 423, [10.3389/fphar.2019.00423](https://doi.org/10.3389/fphar.2019.00423)
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  37. Kuldyshev NA, Mineev KS, Berkut AA, Peigneur S, Arseniev AS, Tytgat J, Grishin EV, **Vassilevski AA** (2018). Refined structure of BeM9 reveals arginine hand, an overlooked structural motif in scorpion toxins affecting sodium channels. *Proteins* 86 (10), 1117–1122, [10.1002/prot.25583](https://doi.org/10.1002/prot.25583)
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  39. Männikkö R, Shenkarev ZO, Thor MG, Berkut AA, Myshkin MY, Paramonov AS, Kulbatskii DS, Kuzmin DA, Castañeda MS, King L, Wilson ER, Lyukmanova EN, Kirpichnikov MP, Schorge S, Bosmans F, Hanna MG, Kullmann DM, **Vassilevski AA** (2018). Spider toxin inhibits gating pore currents underlying periodic paralysis. *Proc Natl Acad Sci U S A* 115 (17), 4495–4500, [10.1073/pnas.1720185115](https://doi.org/10.1073/pnas.1720185115)
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