

Резюме: Акимов Михаил Геннадьевич

Адрес

Федеральное государственное бюджетное учреждение науки Институт биоорганической химии им. академиков М.М. Шемякина и Ю.А. Овчинникова Российской академии наук, Москва, Россия

Контакты

akimovmike@yandex.ru
<https://www.ibch.ru/users/751>

Образование

2005– 2008	Россия, Москва	Институт биоорганической химии им. акад. М.М. Шемякина и Ю.А. Овчинникова РАН	канд. хим. наук
2007– 2007	Россия, Пушино	Школа по конфокальной и электронной микроскопии, организованная фирмой Leica	сертификат о прохождении практики
2000– 2005	Россия, Москва	Московский государственный университет им. М.В. Ломоносова, биологический факультет, кафедра биоорганической химии	диплом с отличием (специалист)

Работа в ИБХ

2016–наст.вр.	Старший научный сотрудник
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Членство в советах и комиссиях ИБХ

Профсоюзный комитет

Научные интересы

геронтология, теория эволюции, теоретическая биология, нейрохимия, биология липидов, онкология

Степени и звания

Кандидат наук (Химические науки, 03.00.04 — Биохимия)

Гранты и проекты

2023–	Взаимодействие противоположно направленных сигналов эндогенных биоактивных липидов
2024	лизофосфатидилинозита, анандамида и 2-арахидоноилглицерина в процессах регуляции пролиферации и смерти клеток рака молочной железы

Публикации

1. **Akimov MG**, Gretskaya NM, Bezuglov VV (2025). Nonclassical Cannabinoid Receptors: Modern Concepts of Signal Transmission Functions and Mechanisms. *Russ. J. Bioorganic Chem.* 51 (5), 1879–1908, [10.1134/S1068162025602502](https://doi.org/10.1134/S1068162025602502)
2. Zhdanov V, Kaplin D, **Akimov M**, Antonov A, Gasanov M, Malchenko V (2025). Ensemble Machine Learning Models for Rice and Wheat Yield Prediction: A Comparative Study Across Districts in India's Kharif and Rabi Seasons. *J INDIAN SOC REMOT* 53 (11), 3901–3915, [10.1007/s12524-025-02186-z](https://doi.org/10.1007/s12524-025-02186-z)
3. Oshchepkov M, Kovalenko L, Kalistratova A, Sherstyanykh G, Gorbacheva E, Antonov A, Khadour N, **Akimov M** (2025). Anti-Proliferative Activity of Ethylenediurea Derivatives with Alkyl and Oxygen-Containing

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4. **Akimov MG**, Gretskaya NM, Gorbacheva EI, Khadour N, Sherstyanykh GD, Bezuglov VV (2025). Two-Step Cell Death Induction by the New 2-Arachidonoyl Glycerol Analog and Its Modulation by Lysophosphatidylinositol in Human Breast Cancer Cells. *Int J Mol Sci* 26 (2), 820, [10.3390/ijms26020820](https://doi.org/10.3390/ijms26020820)
 5. **Akimov MG**, Gretskaya NM, Gorbacheva EI, Khadour N, Chernavskaya VS, Sherstyanykh GD, Kovaleko TF, Fomina-Ageeva EV, Bezuglov VV (2024). The Interaction of the Endocannabinoid Anandamide and Paracannabinoid Lysophosphatidylinositol during Cell Death Induction in Human Breast Cancer Cells. *Int J Mol Sci* 25 (4), 2271, [10.3390/ijms25042271](https://doi.org/10.3390/ijms25042271)
 6. **Akimov MG**, Dudina PV, Vyunova TV, Kalueff AV, Gretskaya NM, Bezuglov VV (2024). Role of key endocannabinoids and their receptors in breast cancer. *Reviews on Clinical Pharmacology and Drug Therapy* 22 (1), 41–51, [10.17816/RCF623144](https://doi.org/10.17816/RCF623144)
 7. Gretskaya N, **Akimov M**, Andreev D, Zalygin A, Belitskaya E, Zinchenko G, Fomina-Ageeva E, Mikhalyov I, Vodovozova E, Bezuglov V (2023). Multicomponent Lipid Nanoparticles for RNA Transfection. *Pharmaceutics* 15 (4), , [10.3390/pharmaceutics15041289](https://doi.org/10.3390/pharmaceutics15041289)
 8. **Akimov MG**, Gretskaya NM, Dudina PV, Sherstyanykh GD, Zinchenko GN, Serova OV, Degtyaryova KO, Deyev IE, Bezuglov VV (2023). The Mechanisms of GPR55 Receptor Functional Selectivity during Apoptosis and Proliferation Regulation in Cancer Cells. *Int J Mol Sci* 24 (6), , [10.3390/ijms24065524](https://doi.org/10.3390/ijms24065524)
 9. Kovshova T, Mantrov S, Boiko S, Malinovskaya J, Merkulova M, Osipova N, Moiseeva N, **Akimov M**, Dudina P, Senchikhin I, Ermolenko Y, Gelperina S (2023). Co-delivery of Paclitaxel and Etoposide Prodrug by Human Serum Albumin and PLGA nanoparticles: synergistic cytotoxicity in brain tumor cells. *J Microencapsul* 40 (4), 1–48, [10.1080/02652048.2023.2188943](https://doi.org/10.1080/02652048.2023.2188943)
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 11. Oshchepkov M, Kovalenko L, Kalistratova A, Ivanova M, Sherstyanykh G, Dudina P, Antonov A, Cherkasova A, **Akimov M** (2022). Anti-Proliferative and Cytoprotective Activity of Aryl Carbamate and Aryl Urea Derivatives with Alkyl Groups and Chlorine as Substituents. *Molecules* 27 (11), , [10.3390/molecules27113616](https://doi.org/10.3390/molecules27113616)
 12. Gamisonia AM, Yushina MN, Fedorovagogolina IA, **Akimov MG**, Eldarov CM, Pavlovich SV, Bezuglov VV, Gretskaya NM, Sukhikh GT, Bobrov MY (2021). N-Acyl Dopamines Induce Apoptosis in Endometrial Stromal Cells from Patients with Endometriosis. *Int J Mol Sci* 22 (19), , [10.3390/ijms221910648](https://doi.org/10.3390/ijms221910648)
 13. **Akimov MG**, Fomina-Ageeva EV, Dudina PV, Andreeva LA, Myasoyedov NF, Bezuglov VV (2021). ACTH(6–9)PGP Peptide Protects SH-SY5Y Cells from H₂O₂, tert-Butyl Hydroperoxide, and Cyanide Cytotoxicity via Stimulation of Proliferation and Induction of Prosurvival-Related Genes. *Molecules* 26 (7), , [10.3390/molecules26071878](https://doi.org/10.3390/molecules26071878)
 14. **Akimov MG**, Gamisonia AM, Dudina PV, Gretskaya NM, Gaydaryova AA, Kuznetsov AS, Zinchenko GN, Bezuglov VV (2021). GPR55 Receptor Activation by the N-Acyl Dopamine Family Lipids Induces Apoptosis in Cancer Cells via the Nitric Oxide Synthase (nNOS) Over-Stimulation. *Int J Mol Sci* 22 (2), 1–24, [10.3390/ijms22020622](https://doi.org/10.3390/ijms22020622)
 15. Bandyopadhyaya S, **Akimov MG**, Verma R, Sharma A, Sharma D, Kundu GC, Gretskaya NM, Bezuglov VV, Mandal CC (2021). N-arachidonoyl dopamine inhibits epithelial-mesenchymal transition of breast cancer cells through ERK signaling and decreasing the cellular cholesterol. *J Biochem Mol Toxicol* 35 (4), e22693, [10.1002/jbt.22693](https://doi.org/10.1002/jbt.22693)
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20. Kalistratova AV, Kovalenko LV, Oshchepkov MS, Gamisoniya AM, Gerasimova TS, Demidov YA, **Akimov MG** (2020). Synthesis of new compounds in the series of aryl-substituted ureas with cytotoxic and antioxidant activity. *MENDELEEV COMMUN* 30 (2), 153–155, [10.1016/j.mencom.2020.03.007](https://doi.org/10.1016/j.mencom.2020.03.007)
21. Sviridova LA, Protopopova PS, **Akimov MG**, Dudina MS, Melnikova EK, Kochetkov KA (2020). Synthesis of new physiologically active (2-oxoimidazolidin-5-yl)indoles. *MENDELEEV COMMUN* 30 (3), 347–349, [10.1016/j.mencom.2020.05.029](https://doi.org/10.1016/j.mencom.2020.05.029)
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25. **Akimov MG**, Ashba AM, Fomina-Ageeva EV, Gretskaia NM, Myasoedov NF, Bezuglov VV (2019). Neuroprotective Action of Amidic Neurolipins in Models of Neurotoxicity on the Culture of Human Neural-Like Cells SH-SY5Y. *Dokl Biochem Biophys* 485 (1), 141–144, [10.1134/S1607672919020182](https://doi.org/10.1134/S1607672919020182)
26. (конференция) **Akimov M**, Loginova E, Musin M (2019). A graph-based approach for learner-tailored teaching of Korean grammar constructions. *IEEE Int Conf Data Min Workshops 2018-November*, 349–354, [10.1109/ICDMW.2018.00057](https://doi.org/10.1109/ICDMW.2018.00057)
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35. **Akimov MG**, Gretskaia NM, Sinitsyna IA, Efremova AS, Andreeva LA, Shram SI, Bezuglov VV, Myasoedov NF (2015). Synthesis of a new fluorescent analogue of proglyprol and study of the mechanisms of its transport into the cultured rat pheochromocytoma cells. *Dokl Biochem Biophys* 460 (1), 13–15, [10.1134/S1607672915010044](https://doi.org/10.1134/S1607672915010044)

36. **Akimov MG**, Gretskaia NM, Karnoukhova VA, Serkov IV, Proshin AN, Shtratnikova VY, Bezuglov VV (2014). The effect of docosahexaenoic acid moiety on the cytotoxic activity of 1,2,4-thiadiazole derivatives. *Biochemistry (Moscow) Supplement Series B: Biomedical Chemistry* 8 (1), 43–46, [10.1134/S1990750814010028](https://doi.org/10.1134/S1990750814010028)
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38. Bezuglov VV, **Akimov MG**, Serkov IV (2013). Hybrid multifunctional ibuprofen drugs: New generation and novel possibilities. , 275–310.
39. **Akimov MG**, Bezuglov VV (2012). N-Acylated dopamines: A new life for the old dopamine. , 49–80.
40. **Akimov MG**, Nazimov IV, Gretskaia NM, Deĭgin VI, Bezuglov VV (2010). [The study of peptide stability during hydrolysis by rat gastroenteric tract fragments]. *Bioorg Khim* 36 (6), 753–759.
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42. Ostroumova TV, Markova LN, **Akimov MG**, Gretskaia NM, Bezuglov VV (2010). Docosahexaenoyl dopamine in freshwater hydra: Effects on regeneration and metabolic changes. *RUSS J DEV BIOL* 41 (3), 164–167, [10.1134/S1062360410030045](https://doi.org/10.1134/S1062360410030045)
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44. **Акимов МГ** (2009). Мембраны и рак. , .
45. **Akimov MG**, Nazimov IV, Gretskaia NM, Zinchenko GN, Bezuglov VV (2009). Sulfation of N-acyl dopamines in rat tissues. *Biochemistry (Mosc)* 74 (6), 681–685, [10.1134/S0006297909060133](https://doi.org/10.1134/S0006297909060133)
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