

## 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

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### Образование

2005–2008	Россия, Москва	Институт биоорганической химии им. акад. М.М. Шемякина и Ю.А. Овчинникова РАН	канд. хим. наук
2007–2007	Россия, Пущино	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
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### Научные интересы

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

### Степени и звания

Кандидат наук (Химические науки, 03.00.04 — Биохимия)
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### Гранты и проекты

2023–2024	<a href="#">Взаимодействие противоположно направленных сигналов эндогенных биоактивных липидов лизофосфатидилинозита, анандамида и 2-арахидоноилглицерина в процессах регуляции пролиферации и смерти клеток рака молочной железы</a>
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### Публикации

1. **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](#)
2. **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](#)
3. **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)

4. Gretskeya 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)
5. **Akimov MG**, Gretskeya 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)
6. 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)
7. Kochetkov KA, Gorunova ON, Bystrova NA, Dudina PV, **Akimov MG** (2022). Synthesis and physiological activity of new imidazolidin-2-one bis-heterocyclic derivatives. *Russ Chem Bull* 71 (11), 2395–2403, [10.1007/s11172-022-3667-z](https://doi.org/10.1007/s11172-022-3667-z)
8. 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)
9. Gamisonia AM, Yushina MN, Fedorovagolina IA, **Akimov MG**, Eldarov CM, Pavlovich SV, Bezuglov VV, Gretskeya 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)
10. **Akimov MG**, Fomina-Ageeva EV, Dudina PV, Andreeva LA, Myasoyedov NF, Bezuglov VV (2021). ACTH(6–9)PGP Peptide Protects SH-SY5Y Cells from H<sub>2</sub>O<sub>2</sub>, 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)
11. **Akimov MG**, Gamisonia AM, Dudina PV, Gretskeya 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)
12. Bandyopadhyaya S, **Akimov MG**, Verma R, Sharma A, Sharma D, Kundu GC, Gretskeya 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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15. Gretskeya NM, Gamisonia AM, Dudina PV, Zakharov SS, Sherstyanykh G, Akasov R, Burov S, Serkov IV, **Akimov MG**, Bezuglov VV, Markvicheva E (2020). Novel bexarotene derivatives: Synthesis and cytotoxicity evaluation for glioma cells in 2D and 3D in vitro models. *Eur J Pharmacol* 883, 173346, [10.1016/j.ejphar.2020.173346](https://doi.org/10.1016/j.ejphar.2020.173346)
16. **Akimov MG**, Dudina PV, Fomina-Ageeva EV, Gretskeya NM, Bosaya AA, Rudakova EV, Makhaeva GF, Kagarlitsky GO, Eremin SA, Tsetlin VI, Bezuglov VV (2020). Neuroprotective and Antioxidant Activity of Arachidonoyl Choline, Its Bis-Quaternized Analogues and Other Acylcholines. *Dokl Biochem Biophys* 491 (1), 93–97, [10.1134/S1607672920020027](https://doi.org/10.1134/S1607672920020027)
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22. **Akimov MG**, Ashba AM, Fomina-Ageeva EV, Gretskeya 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)
23. (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)
24. (конференция) **Akimov M**, Ashba A, Gretskeya N, Bezuglov V (2018). N-acyl dopamines (NADA) require a certain cellular cholesterol level to induce cell death. *FEBS Open Bio* 8 (Supp.), 75–ShT.23–2.
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40. Ostroumova TV, Markova LN, **Akimov MG**, Gretskaia NM, Bezuglov VV (2010). Docosahexaenoyl dopamine in freshwater hydra: effects on regeneration and metabolic changes. *Ontogenez* 41 (3), 199–203.
41. **Акимов МГ** (2009). Мембраны и рак. , .
42. **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)
43. Bezuglov VV, Gretskaia NM, Klinov DV, Bobrov MY, Shibanova ED, **Akimov MG**, Fomina-Ageeva EV, Zinchenko GN, Bairamashvili DI, Miroshnikov AI (2009). Nanocomplexes of recombinant proteins and polysialic acid: Preparation, characteristics, and biological activity. *Russ. J. Bioorganic Chem.* 35 (3), 320–325, [10.1134/S1068162009030066](https://doi.org/10.1134/S1068162009030066)
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