Резюме: Феофанов Алексей Валерьевич

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

1970–2006	Россия, Москва	Московский государственный университет имени М.В. Ломоносова (МГУ), биологический факультет	Присуждена учёная степень доктора биологических наук
1970–1991	Россия, Москва	Московский государственный университет имени М.В. Ломоносова (МГУ), биологический факультет	Присуждена учёная степень кандидата физ.-мат. наук
1982–1988	Россия, Москва	Московский инженерно-физический институт (МИФИ)	диплом инженера-физика

Работа в ИБХ

2026–наст.вр.	Заведующий лабораторией	
2017–наст.вр.	Главный научный сотрудник	
2026–2026	Доцент	

Членство в советах и комиссиях ИБХ

	Ученый совет

Научные интересы

Изучение структуры и функциональных свойств биологически активных соединений с широким использованием методов оптической спектроскопии и микроскопии. Разработка новых методических подходов к изучению биологических молекул на основе методов оптической микроскопии и спектроскопии.

Основные направления исследований включают в себя:

скрининг, структурно-функциональные, доклинические и клинические исследования новых фотосенсибилизаторов для противоопухолевой и антимикробной фотодинамической терапии (ФДТ);

оптимизация структуры и изучение свойств конъюгатов хлорина e6 с наночастицами бора применительно к ФДТ, бор нейтрон-захватной терапии рака и флуоресцентной диагностике;

изучение функциональной роли трансмембранных доменов эфриновых тирозинкиназных рецепторов EphA2;

изучение свойств и механизмов действия на клетки эукариот и прокариот природных пептидов из ядов насекомых;

поиск новых лигандов потенциал-зависимых калиевых каналов, изучение их активности и свойств.

Степени и звания

	Доцент
	Доктор наук (Биологические науки, 03.00.02 — Биофизика)

Ссылки и контакты

Scopus: 7003518369, ResearcherID: K-3082-2012

Гранты и проекты

2022–наст.вр.	Гомо- и гетеро- тетрамерные потенциал-зависимые калиевые каналы Kv1 в клетках эукариот и их взаимодействия с поровыми блокаторами
2018–2020	Разработка флуоресцентных хемосенсоров на основе резонансного переноса энергии для определения биогенных металлов в растворах и клетках
2019–2022	Эпигенетические механизмы биологических процессов и их роль в патогенезе онкологических заболеваний
2017–2020	Механизм взаимодействия PARP-1 с хроматином
2016–2019	Магнито-плазмонные гибридные наносенсоры как многофункциональная платформа для детекции клеток рака груди
2019–2021	Полифункциональные фотосенсибилизаторы на основе гуанидиновых производных природных порфиринов

Публикации

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2. Andreeva TV, Efremenko AV, Saulina AA, Lyubitelev AV, Malinina DK, Maluchenko NV, Studitsky VM, **Feofanov AV** (2026). Interaction of Resveratrol with DNA in Cells and Nucleosome-Protein Complexes In Vitro. *Biophysics (Oxf)* 71 (2), 196–205, 10.1134/S0006350926700193
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4. Bal NV, Oblasov I, Ierusalimsky VN, Shvadchenko AM, Fortygina P, Idzhilova OS, Borodinova AA, Balaban PM, **Feofanov AV**, Nekrasova OV, Nikitin ES (2025). Potassium KCa3.1 channel overexpression deteriorates functionality and availability of channels at the outer cellular membrane. *Sci Rep* 15 (1), 4928, 10.1038/s41598-025-89097-8
5. 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

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9. Efremenko AV, Kryukova EV, Kazakov OV, Kirpichnikov MP, Nekrasova OV, **Feofanov AV** (2025). Properties of Potassium Channel Kv1.1 on the Basis of Fluorescent Dimer of Alpha-Subunits mKATE2-Kv1.1-Kv1.1 in Neuro-2a Cells. *Russ. J. Bioorganic Chem.* 51 (5), 2055–2063, 10.1134/S106816202560240X
10. Korabeynikova VN, **Feofanov AV**, Nekrasova OV (2025). N- or C-terminal position of the fluorescent protein mKate2 in the mKate2-KCa3.1 chimera influences membrane expression of the channel. *ВМУ.Биология* 80 (3S), 46–51, 10.55959/MSU0137-0952-16-80-3S-7
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13. Koshkina D, Maluchenko N, Nilov D, Lyubitelev A, Korovina A, Pushkarev S, Armeev G, Kirpichnikov M, Studitsky V, **Feofanov A** (2025). Non-Classical H1-like PARP1 Binding to Chromatosome. *Cells* 14 (17), 1309, 10.3390/cells14171309
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35. Primak AL, Orlov NA, Peigneur S, Tytgat J, Ignatova AA, Denisova KR, Yakimov SA, Kirpichnikov MP, Nekrasova OV, **Feofanov AV** (2023). AgTx2-GFP, Fluorescent Blocker Targeting Pharmacologically Important Kv1.x (x = 1, 3, 6) Channels. *Toxins (Basel)* 15 (3), 229, 10.3390/toxins15030229

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37. Dubovskii PV, Ignatova AA, Alekseeva AS, Starkov VG, Boldyrev IA, **Feofanov AV**, Utkin YN (2023). Membrane-Disrupting Activity of Cobra Cytotoxins Is Determined by Configuration of the N-Terminal Loop. *Toxins (Basel)* 15 (1), 6, 10.3390/toxins15010006
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40. Orlov NA, Ignatova AA, Kryukova EV, Yakimov SA, Kirpichnikov MP, Nekrasova OV, **Feofanov AV** (2022). Combining mKate2-Kv1.3 Channel and Atto488-Hongotoxin for the Studies of Peptide Pore Blockers on Living Eukaryotic Cells. *Toxins (Basel)* 14 (12), 858, 10.3390/toxins14120858
41. Efremenko A, Dyakova E, Ostroverkhov P, Ignatova A, Grin M, **Feofanov A** (2022). Photodynamic properties of lysine and arginine derivatives of bacteriopurpurinimide. *Future Med Chem* 14 (22), 1635–1647, 10.4155/fmc-2022-0192
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