

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

<https://www.ibch.ru/ru/users/44>

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

Заведующий лабораторией

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 е6 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

Гранты и проекты

-
- 2018–2020 [Разработка флуоресцентных хемосенсоров на основе резонансного переноса энергии для определения биогенных металлов в растворах и клетках](#)
-
- 2019–наст.вр. [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–наст.вр. [Полифункциональные фотосенсибилизаторы на основе гуанидиновых производных природных порфиринов](#)
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Публикации

1. Efremenko AV, Dyakova ED, Ostroverkhov PV, Kirin NS, Mironov AF, Grin MA, **Feofanov AV** (2021). Intracellular Localization and the Mechanisms of Photodynamic Action of 131-[2-(Guanidinyl)ethylamino] Chlorin e6 Dimethyl Ester. *Russ. J. Bioorganic Chem.* 47 (4), 845–853, [10.1134/S1068162021040087](https://doi.org/10.1134/S1068162021040087)
2. Kudryashova KS, Nekrasova OV, Kirpichnikov MP, **Feofanov AV** (2021). Chimeras of KcsA and Kv1 as a bioengineering tool to study voltage-gated potassium channels and their ligands. *Biochem Pharmacol*, 114646, [10.1016/j.bcp.2021.114646](https://doi.org/10.1016/j.bcp.2021.114646)
3. Ovcharova MA, Geraskina OV, Danilova ND, Botchkova EA, Martyanov SV, **Feofanov AV**, Plakunov VK, Gannesen AV (2021). Atrial Natriuretic Peptide Affects Skin Commensal Staphylococcus epidermidis and Cutibacterium acnes Dual-Species Biofilms. *Microorganisms* 9 (3), 1–21, [10.3390/microorganisms9030552](https://doi.org/10.3390/microorganisms9030552)
4. Panchenko PA, Efremenko AV, **Feofanov AV**, Ustimova MA, Fedorov YV, Fedorova OA (2021). Ratiometric Detection of Mercury (II) Ions in Living Cells Using Fluorescent Probe Based on Bis(styryl) Dye and Azadithia-15-Crown-5 Ether Receptor. *Sensors (Basel)* 21 (2), 1–15, [10.3390/s21020470](https://doi.org/10.3390/s21020470)
5. Mineev KS, Kryukova EV, Kasheverov IE, Egorova NS, Zhmak MN, Ivanov IA, Senko DA, **Feofanov AV**, Ignatova AA, Arseniev AS, Utkin YN, Tsetlin VI (2021). Spatial Structure and Activity of Synthetic Fragments of Lynx1 and of Nicotinic Receptor Loop C Models. *Biomolecules* 11 (1), 1–16, [10.3390/biom11010001](https://doi.org/10.3390/biom11010001)
6. Primak AL, Skutel MA, Nekrasova OV, Arseniev AS, Kirpichnikov MP, **Feofanov AV** (2020). Kv1 Potassium Channel Ligands Based On Hongotoxin 1 and Red Fluorescent Protein. *Russ. J. Bioorganic Chem.* 46 (6), 1011–1017, [10.1134/S1068162020060266](https://doi.org/10.1134/S1068162020060266)
7. Nekrasova OV, Primak AL, Ignatova AA, Novoseletsky VN, Geraskina OV, Kudryashova KS, Yakimov SA, Kirpichnikov MP, Arseniev AS, **Feofanov AV** (2020). N-Terminal Tagging with GFP Enhances Selectivity of Agitoxin 2 to Kv1.3-Channel Binding Site. *Toxins (Basel)* 12 (12), 802, [10.3390/toxins12120802](https://doi.org/10.3390/toxins12120802)
8. Radchanka A, Iodchik A, Terpinskaya T, Balashevich T, Yanchanka T, Palukoshka A, Sizova S, Oleinikov V, **Feofanov A**, Artemyev M (2020). Emitters with different dimensionality: 2D cadmium chalcogenide nanoplatelets and 0D quantum dots in non-specific cell labeling and two-photon imaging. *Nanotechnology* 31 (43), 435102, [10.1088/1361-6528/aba5b5](https://doi.org/10.1088/1361-6528/aba5b5)
9. Novikov RV, Bondarenko EA, Malyuchenko NV, **Feofanov AV**, Studitsky VM, Shaytan AK (2020). Determining the Binding Constant of LANA Protein Fragment with Nucleosome. *Moscow Univ Biol Sci Bull* 75 (4), 252–256, [10.3103/S0096392520040070](https://doi.org/10.3103/S0096392520040070)
10. Zhdanova KA, Savelyeva IO, Ignatova AA, Gradova MA, Gradov OV, Lobanov AV, **Feofanov AV**, Mironov AF, Bragina NA (2020). Synthesis and photodynamic antimicrobial activity of amphiphilic meso-arylporphyrins with pyridyl moieties. *Dyes Pigment* 181, , [10.1016/j.dyepig.2020.108561](https://doi.org/10.1016/j.dyepig.2020.108561)
11. Новиков РВ, Бондаренко ЕА, Малюченко НВ, **Феофанов АВ**, Студитский ВМ, Шайтан АК (2020). Determination of the binding constant of LANA protein fragment with nucleosome. *ВМУ.Биология* 75 (4),

296–301.

12. (конференция) Orlov N, Ignatova A, Nekrasova O, Kirpichnikov M, **Feofanov A** (2020). Design of far-red fluorescent Kv1.3 channel for membrane expression in eukaryotic cells and its interactions with hongotoxin1. *Microsc Microanal* , , [10.1017/S1431927620017936](https://doi.org/10.1017/S1431927620017936)
13. Малюченко НВ, Кошкина ДО, Коровина АН, Герасимова НС, Кирпичников МП, Студитский ВМ, **Феофанов АВ** (2020). Effect of gossypol on nucleosome structure. *ВМУ.Биология* 75 (3), 170–175.
14. Ignatova AA, Korostey YS, Fedotova MK, Sivaev IB, Bregadze VI, Mironov AF, Grin MA, **Feofanov AV** (2020). Conjugate of chlorin e6 with iron bis(dicarbollide) nanocluster: synthesis and biological properties. *Future Med Chem* 12 (11), 1015–1023, [10.4155/fmc-2020-0029](https://doi.org/10.4155/fmc-2020-0029)
15. Deigin V, Ksenofontova O, Yatskin O, Goryacheva A, Ignatova A, **Feofanov A**, Ivanov V (2020). Novel platform for the preparation of synthetic orally active peptidomimetics with hemoregulating activity. II. Hemosuppressor activity of 2,5-diketopiperazine-based cyclopeptides. *Int Immunopharmacol* 81, 106185, [10.1016/j.intimp.2020.106185](https://doi.org/10.1016/j.intimp.2020.106185)
16. Nilov D, Maluchenko N, Kurgina T, Pushkarev S, Lys A, Kutuzov M, Gerasimova N, **Feofanov A**, Švedas V, Lavrik O, Studitsky VM (2020). Molecular Mechanisms of PARP-1 Inhibitor 7-Methylguanine. *Int J Mol Sci* 21 (6), , [10.3390/ijms21062159](https://doi.org/10.3390/ijms21062159)
17. Maluchenko NV, Sultanov DS, Kotova EY, Kirpichnikov MP, Studitsky VM, **Feofanov AV** (2020). Histone Tails Promote PARP1-Dependent Structural Rearrangements in Nucleosomes. *Dokl Biochem Biophys* 489 (1), 377–379, [10.1134/S1607672919060061](https://doi.org/10.1134/S1607672919060061)
18. Dubovskii PV, Ignatova AA, **Feofanov AV**, Utkin YN, Efremov RG (2020). Antibacterial activity of cardiotoxin-like basic polypeptide from cobra venom. *Bioorg Med Chem Lett* 30 (3), 126890, [10.1016/j.bmcl.2019.126890](https://doi.org/10.1016/j.bmcl.2019.126890)
19. Pacaud M, Hervé-Aubert K, Soucé M, Makki AA, Bonnier F, Fahmi A, **Feofanov A**, Chourpa I (2020). One-step synthesis of gold nanoflowers of tunable size and absorption wavelength in the red & deep red range for SERS spectroscopy. *Spectrochim Acta A* 225, 117502, [10.1016/j.saa.2019.117502](https://doi.org/10.1016/j.saa.2019.117502)
20. (конференция) Skutel M, Primak A, Kirpichnikov M, Arseniev A, **Feofanov A**, Nekrasova O (2020). RFP-tagged Hongotoxin 1 and Its Interactions with KcsA-Kv1.1 Hybrid Channels. *Microsc Microanal* , , [10.1017/S1431927620017900](https://doi.org/10.1017/S1431927620017900)
21. Moiseenko A, Loiko N, Tereshkina K, Danilova Y, Kovalenko V, Chertkov O, **Feofanov AV**, Krupyanskii YF, Sokolova OS (2019). Projection structures reveal the position of the DNA within DNA-Dps Co-crystals. *Biochem Biophys Res Commun* 517 (3), 463–469, [10.1016/j.bbrc.2019.07.103](https://doi.org/10.1016/j.bbrc.2019.07.103)
22. Malyuchenko NV, Kotova EY, Kirpichnikov MP, Studitsky VM, **Feofanov AV** (2019). PARP1 Binding to DNA Breaks and Hairpins Alters Nucleosome Structure. *Moscow Univ Biol Sci Bull* 74 (3), 158–162, [10.3103/S0096392519030076](https://doi.org/10.3103/S0096392519030076)
23. Kantidze OL, Luzhin AV, Nizovtseva EV, Safina A, Valieva ME, Golov AK, Velichko AK, Lyubitelev AV, **Feofanov AV**, Gurova KV, Studitsky VM, Razin SV (2019). The anti-cancer drugs curaxins target spatial genome organization. *Nat Commun* 10 (1), 1441, [10.1038/s41467-019-09500-7](https://doi.org/10.1038/s41467-019-09500-7)
24. 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)
25. Chang HW, Valieva ME, Safina A, Chereji RV, Wang J, Kulaeva OI, Morozov AV, Kirpichnikov MP, **Feofanov AV**, Gurova KV, Studitsky VM (2018). Mechanism of FACT removal from transcribed genes by anticancer drugs curaxins. *Sci Adv* 4 (11), eaav2131, [10.1126/sciadv.aav2131](https://doi.org/10.1126/sciadv.aav2131)
26. Dubovskii PV, Ignatova AA, Volynsky PE, Ivanov IA, Zhmak MN, **Feofanov AV**, Efremov RG (2018). Improving therapeutic potential of antibacterial spider venom peptides: coarse-grain molecular dynamics guided approach. *Future Med Chem* 10 (19), 2309–2322, [10.4155/fmc-2018-0170](https://doi.org/10.4155/fmc-2018-0170)
27. **Feofanov AV**, Andreeva TV, Studitsky VM, Kirpichnikov MP (2018). Reversibility of Structural Rearrangements in Mononucleosomes Induced by Ionic Strength. *Moscow Univ Biol Sci Bull* 73 (3), 157–161, [10.3103/S0096392518030070](https://doi.org/10.3103/S0096392518030070)
28. (конференция) Valieva M, Chertkov O, Karlova M, Kirpichnikov MP, **Feofanov AV**, Sokolova OS, Studitsky V (2018). Multiple Conformations of Compact Dhmdesomes: Analysis by Electron Microscopy. *Microsc Microanal* 24 (S1), 1242–1243, [10.1017/S1431927618006694](https://doi.org/10.1017/S1431927618006694)

29. (конференция) Djemaa SB, Pacaud M, Hervé-Aubert K, David Sp, Allard-Vannier E, Munnier E, Ignatova A, Fahmi A, **Feofanov A**, Chourpa I (2018). Fluorescence Microscopy as a Tool for Nanomedicine-Cell Interactions Study: Input of Particle Design and of Analytical Strategy. *Microsc Microanal* 24 (S1), 1316–1317, [10.1017/S1431927618007067](https://doi.org/10.1017/S1431927618007067)
30. Lyukmanova EN, Bychkov ML, Sharonov GV, Efremenko AV, Shulepko MA, Kulbatskii DS, Shenkarev ZO, **Feofanov AV**, Dolgikh DA, Kirpichnikov MP (2018). Human secreted proteins SLURP-1 and SLURP-2 control the growth of epithelial cancer cells via interactions with nicotinic acetylcholine receptors. *Br J Pharmacol* 175 (11), 1973–1986, [10.1111/bph.14194](https://doi.org/10.1111/bph.14194)
31. McCullough LL, Connell Z, Xin H, Studitsky VM, **Feofanov AV**, Valieva ME, Formosa T (2018). Functional roles of the DNA-binding HMGB domain in the histone chaperone FACT in nucleosome reorganization. *J Biol Chem* 293 (16), 6121–6133, [10.1074/jbc.RA117.000199](https://doi.org/10.1074/jbc.RA117.000199)
32. Navakouski M, Shilova N, Khasbiullina N, **Feofanov A**, Pudova E, Chen K, Blixt O, Bovin N (2018). Improved spot morphology for printed glycan arrays. *Biotechniques* 64 (3), 110–116, [10.2144/btn-2017-0111](https://doi.org/10.2144/btn-2017-0111)
33. Alric C, Hervé-Aubert K, Aubrey N, Melouk S, Lajoie L, Mème W, Mème S, Courbebaisse Y, Ignatova AA, **Feofanov AV**, Chourpa I, Allard-Vannier E (2018). Targeting HER2-breast tumors with scFv-decorated bimodal nanoprobe. *J Nanobiotechnology* 16 (1), 18, [10.1186/s12951-018-0341-6](https://doi.org/10.1186/s12951-018-0341-6)
34. Mironov AF, Grin MA, Pantushenko IV, Ostroverkhov PV, Ivanenkov YA, Filkov GI, Plotnikova EA, Karmakova TA, Starovoitova AV, Burmistrova NV, Yuzhakov VV, Romanko YS, Abakumov MA, Ignatova AA, **Feofanov AV**, Kaplan MA, Yakubovskaya RI, Tsigankov AA, Majouga AG (2017). Synthesis and Investigation of Photophysical and Biological Properties of Novel S-Containing Bacteriopurpurinimides. *J Med Chem* 60 (24), 10220–10230, [10.1021/acs.jmedchem.7b00577](https://doi.org/10.1021/acs.jmedchem.7b00577)
35. Volovetsky AB, Sukhov VS, Balalaeva IV, Dudenkova VV, Shilyagina NY, **Feofanov AV**, Efremenko AV, Grin MA, Mironov AF, Sivaev IB, Bregadze VI, Maslennikova AV (2017). Pharmacokinetics of chlorin e6-cobalt bis(Dicarbollide) conjugate in balb/c mice with engrafted carcinoma. *Int J Mol Sci* 18 (12), , [10.3390/ijms18122556](https://doi.org/10.3390/ijms18122556)
36. Chertkov OV, Valieva ME, Malyuchenko NV, **Feofanov AV** (2017). Analysis of Nucleosome Structure in Polyacrylamide Gel by the Förster Resonance Energy Transfer Method. *Moscow Univ Biol Sci Bull* 72 (4), 196–200, [10.3103/S0096392517040034](https://doi.org/10.3103/S0096392517040034)
37. Nekrasova O, Yakimov S, Kirpichnikov M, **Feofanov A** (2017). Recombinant scorpion toxins: Focus on four-disulfide peptide blockers of Kv1-channels. *Bioengineered* 9 (1), 25–29, [10.1080/21655979.2017.1373530](https://doi.org/10.1080/21655979.2017.1373530)
38. Lyubitelev AV, Studitsky VM, **Feofanov AV**, Kirpichnikov MP (2017). Effect of sodium and potassium ions on conformation of linker parts of nucleosomes. *Moscow Univ Biol Sci Bull* 72 (3), 146–150, [10.3103/S0096392517030075](https://doi.org/10.3103/S0096392517030075)
39. Nekrasova OV, Volyntseva AD, Kudryashova KS, Novoseletsky VN, Lyapina EA, Illarionova AV, Yakimov SA, Korolkova YV, Shaitan KV, Kirpichnikov MP, **Feofanov AV** (2017). Complexes of Peptide Blockers with Kv1.6 Pore Domain: Molecular Modeling and Studies with KcsA-Kv1.6 Channel. *J Neuroimmune Pharmacol* 12 (2), 260–276, [10.1007/s11481-016-9710-9](https://doi.org/10.1007/s11481-016-9710-9)
40. Allard-Vannier E, Hervé-Aubert K, Kaaki K, Blondy T, Shebanova A, Shaitan KV, Ignatova AA, Saboungi ML, **Feofanov AV**, Chourpa I (2017). Folic acid-capped PEGylated magnetic nanoparticles enter cancer cells mostly via clathrin-dependent endocytosis. *BIOCHIM BIOPHYS ACTA* 1861 (6), 1578–1586, [10.1016/j.bbagen.2016.11.045](https://doi.org/10.1016/j.bbagen.2016.11.045)
41. Shulepko MA, Lyukmanova EN, Shenkarev ZO, Dubovskii PV, Astapova MV, **Feofanov AV**, Arseniev AS, Utkin YN, Kirpichnikov MP, Dolgikh DA (2017). Towards universal approach for bacterial production of three-finger Ly6/uPAR proteins: Case study of cytotoxin I from cobra *N. oxiana*. *Protein Expr Purif* 130, 13–20, [10.1016/j.pep.2016.09.021](https://doi.org/10.1016/j.pep.2016.09.021)
42. Nekrasova O, Kudryashova K, Fradkov A, Yakimov S, Savelieva M, Kirpichnikov M, **Feofanov A** (2017). Straightforward approach to produce recombinant scorpion toxins—Pore blockers of potassium channels. *J Biotechnol* 241, 127–135, [10.1016/j.jbiotec.2016.11.030](https://doi.org/10.1016/j.jbiotec.2016.11.030)
43. (конференция) **Feofanov AV**, Chertkov OV, Kudryashova KS, Ivanov YO, Studitsky VM, Kirpichnikov MP (2017). Single-particle FRET microscopy of immobilized nucleosomes: Technique development. *Springer Proceedings in Physics* 186, 17–23, [10.1007/978-3-319-46601-93](https://doi.org/10.1007/978-3-319-46601-93)
44. (конференция) **Feofanov AV**, Kudryashova KS, Ignatova AA, Nekrasova OV (2017). Recombinant

- fluorescent ligand of potassium Kv1.1 and Kv1.3 channels: Design, properties and applications. *Springer Proceedings in Physics* 186, 11–16, [10.1007/978-3-319-46601-92](https://doi.org/10.1007/978-3-319-46601-92)
45. Valieva ME, Gerasimova NS, Kudryashova KS, Kozlova AL, Kirpichnikov MP, Hu Q, Botuyan MV, Mer G, **Feofanov AV**, Studitsky VM (2017). Stabilization of nucleosomes by histone tails and by FACT revealed by spFRET microscopy. *Cancers (Basel)* 9 (1), , [10.3390/cancers9010003](https://doi.org/10.3390/cancers9010003)
 46. Panchenko PA, Grin MA, Fedorova OA, Zakharko MA, Pritnov DA, Mironov AF, Arkhipova AN, Fedorov YV, Jonusauskas G, Yakubovskaya RI, Morozova NB, Ignatova AA, **Feofanov AV** (2017). A novel bacteriochlorin-styrylnaphthalimide conjugate for simultaneous photodynamic therapy and fluorescence imaging. *Phys Chem Chem Phys* 19 (44), 30195–30206, [10.1039/c7cp04449f](https://doi.org/10.1039/c7cp04449f)
 47. Sultanov DC, Gerasimova NS, Kudryashova KS, Maluchenko NV, Kotova EY, Langelier MF, Pascal JM, Kirpichnikov MP, **Feofanov AV**, Studitsky VM (2017). Unfolding of core nucleosomes by PARP-1 revealed by spFRET microscopy. *AIMS Genet* 4 (1), 21–31, [10.3934/genet.2017.1.21](https://doi.org/10.3934/genet.2017.1.21)
 48. Valieva ME, Armeev GA, Kudryashova KS, Gerasimova NS, Shaytan AK, Kulaeva OI, McCullough LL, Formosa T, Georgiev PG, Kirpichnikov MP, Studitsky VM, **Feofanov AV** (2016). Large-scale ATP-independent nucleosome unfolding by a histone chaperone. *Nat Struct Mol Biol* 23 (12), 1111–1116, [10.1038/nsmb.3321](https://doi.org/10.1038/nsmb.3321)
 49. Vasilchenko AS, Yuryev M, Ryazantsev DY, Zavriev SK, **Feofanov AV**, Grishin EV, Rogozhin EA (2016). Studying of cellular interaction of hairpin-like peptide EcAMP1 from barnyard grass (*Echinochloa crusgalli* L.) seeds with plant pathogenic fungus *Fusarium solani* using microscopy techniques. *Scanning* 38 (6), 591–598, [10.1002/sca.21305](https://doi.org/10.1002/sca.21305)
 50. Kuzmenkov AI, Nekrasova OV, Kudryashova KS, Peigneur S, Tytgat J, Stepanov AV, Kirpichnikov MP, Grishin EV, **Feofanov AV**, Vassilevski AA (2016). Fluorescent protein-scorpion toxin chimera is a convenient molecular tool for studies of potassium channels. *Sci Rep* 6, 33314, [10.1038/srep33314](https://doi.org/10.1038/srep33314)
 51. Valieva ME, **Feofanov AV**, Studitsky VM (2016). Histone chaperones: Variety and functions. *Moscow Univ Biol Sci Bull* 71 (3), 165–169, [10.3103/S0096392516030123](https://doi.org/10.3103/S0096392516030123)
 52. Novoseletsky VN, Volyntseva AD, Shaitan KV, Kirpichnikov MP, **Feofanov AV** (2016). Modeling of the binding of peptide blockers to voltage-gated potassium channels: Approaches and evidence. *Acta Naturae* 8 (2), 35–46, [10.32607/20758251-2016-8-2-35-46](https://doi.org/10.32607/20758251-2016-8-2-35-46)
 53. Kudryashova KS, Chertkov OV, Ivanov YO, Studitskiy VM, **Feofanov AV** (2016). Experimental setup for the study of immobilized single nucleosomes using total internal reflection fluorescence. *Moscow Univ Biol Sci Bull* 71 (2), 97–101, [10.3103/S0096392516020048](https://doi.org/10.3103/S0096392516020048)
 54. Lyubitelev AV, Kudryashova KS, Mikhaylova MS, Malyuchenko NV, Chertkov OV, Studitsky VM, **Feofanov AV**, Kirpichnikov MP (2016). Change in linker DNA conformation upon histone H1.5 binding to nucleosome: Fluorescent microscopy of single complexes. *Moscow Univ Biol Sci Bull* 71 (2), 108–113, [10.3103/S0096392516020061](https://doi.org/10.3103/S0096392516020061)
 55. Lyukmanova EN, Shulepko MA, Kudryavtsev D, Bychkov ML, Kulbatskii DS, Kasheverov IE, Astapova MV, **Feofanov AV**, Thomsen MS, Mikkelsen JD, Shenkarev ZO, Tsetlin VI, Dolgikh DA, Kirpichnikov MP (2016). Human secreted Ly-6/uPAR related protein-1 (SLURP-1) is a selective allosteric antagonist of $\alpha 7$ nicotinic acetylcholine receptor. *PLoS One* 11 (2), e0149733, [10.1371/journal.pone.0149733](https://doi.org/10.1371/journal.pone.0149733)
 56. Volovetsky AB, Shilyagina NY, Dudenkova VV, Pasyunkova SO, Grin MA, Mironov AF, **Feofanov AV**, Balalaeva IV, Maslennikova AV (2016). Biodistribution of amine-amide chlorin e6 derivative conjugate with a boron nanoparticle for boron neutron-capture therapy. *Sovrem Tekhnologii Med* 8 (1), 34–39, [10.17691/stm2016.8.1.05](https://doi.org/10.17691/stm2016.8.1.05)
 57. Kudryashova KS, Nikitin DV, Chertkov OV, Gerasimova NS, Valieva ME, Studitsky VM, **Feofanov AV** (2015). Development of fluorescently labeled mononucleosomes for the investigation of transcription mechanisms by single complex microscopy. *Moscow Univ Biol Sci Bull* 70 (4), 189–193, [10.3103/S0096392515040069](https://doi.org/10.3103/S0096392515040069)
 58. Dubovskii PV, Vassilevski AA, Kozlov SA, **Feofanov AV**, Grishin EV, Efremov RG (2015). Latarecins: Versatile spider venom peptides. *Cell Mol Life Sci* 72 (23), 4501–4522, [10.1007/s00018-015-2016-x](https://doi.org/10.1007/s00018-015-2016-x)
 59. Kuzmenkov AI, Vassilevski AA, Kudryashova KS, Nekrasova OV, Peigneur S, Tytgat J, **Feofanov AV**, Kirpichnikov MP, Grishin EV (2015). Variability of potassium channel blockers in *Mesobuthus eupeus* scorpion venom with focus on Kv1.1: An integrated transcriptomic and proteomic study. *J Biol Chem* 290 (19), 12195–12209, [10.1074/jbc.M115.637611](https://doi.org/10.1074/jbc.M115.637611)

60. Kudryashova KS, Chertkov OV, Nikitin DV, Pestov NA, Kulaeva OI, Efremenko AV, Solonin AS, Kirpichnikov MP, Studitsky VM, **Feofanov AV** (2015). Preparation of mononucleosomal templates for analysis of transcription with RNA polymerase using spFRET. *Methods Mol Biol* 1288, 395–412, [10.1007/978-1-4939-2474-523](https://doi.org/10.1007/978-1-4939-2474-523)
61. (конференция) **Feofanov AV**, Kudryashova KS, Chertkov OV, Nikitin DV, Pestov NA, Kulaeva OI, Studitsky VM, Kirpichnikov MP (2015). Analysis of nucleosome transcription using single-particle FRET. *Springer Proceedings in Physics* 164, 255–260, [10.1007/978-3-319-16919-4_33](https://doi.org/10.1007/978-3-319-16919-4_33)
62. (конференция) **Feofanov AV**, Kudryashova KS, Nekrasova OV, Vassilevski AA, Kuzmenkov AI, Korolkova YV, Grishin EV, Kirpichnikov MP (2015). Quantitative confocal microscopy analysis as a basis for search and study of potassium kv1.X channel blockers. *Springer Proceedings in Physics* 164, 249–254, [10.1007/978-3-319-16919-4_32](https://doi.org/10.1007/978-3-319-16919-4_32)
63. Kudryashova KS, Chertkov OV, Nikitin DV, Pestov NA, Kulaeva OI, Efremenko AV, Solonin AS, Kirpichnikov MP, Studitsky VM, **Feofanov AV** (2015). Preparation of mononucleosomal templates for analysis of transcription with RNA polymerase using spFRET. *Methods Mol Biol* 1288, 395–412, [10.1007/978-1-4939-2474-523](https://doi.org/10.1007/978-1-4939-2474-523)
64. Dubovskii PV, Vorontsova OV, Utkin YN, Arseniev AS, Efremov RG, **Feofanov AV** (2015). Cobra cytotoxins: Determinants of antibacterial activity. *MENDELEEV COMMUN* 25 (1), 70–71, [10.1016/j.mencom.2015.01.026](https://doi.org/10.1016/j.mencom.2015.01.026)
65. Yakubovskaya RI, Morozova NB, Pankratov AA, Kazachkina NI, Plyutinskaya AD, Karmakova TA, Andreeva TN, Venediktova YB, Plotnikova EA, Nemtsova ER, Sokolov VV, Filonenko EV, Chissov VI, Kogan BY, Butenin AV, **Feofanov AV**, Strakhovskaya MG (2015). Experimental photodynamic therapy: 15 years of development. *RUSS J GEN CHEM* 85 (1), 217–239, [10.1134/S1070363215010405](https://doi.org/10.1134/S1070363215010405)
66. Кузнецов АС, Дубовский ПВ, Воронцова ОВ, **Феофанов АВ**, Ефремов РГ (2014). Взаимодействие линейных катионных пептидов с фосфолипидными мембранами и полимерами сиаловой кислоты. *Biochemistry (Mosc)* 79 (5), 583–594.
67. Shmal'ko AV, Efremenko AV, Ignatova AA, Sivaev IB, **Feofanov AV**, Hamuryudan E, Gül A, Kovalenko LV, Qi S, Bregadze VI (2014). Synthesis and in vitro study of new highly boronated phthalocyanine. *J Porphyr Phthalocyanines* 18 (1011), 960–966, [10.1142/S1088424614500746](https://doi.org/10.1142/S1088424614500746)
68. Lastovoi AP, Ignatova AA, **Feofanov AV**, Machinskaya EA, Ivanova-Radkevich VI (2014). Properties of the novel photosensitizer β, β', β' -tetramethyltribenzotetraazachlorin. *PHARM CHEM J* 48 (2), 77–81, [10.1007/s11094-014-1051-5](https://doi.org/10.1007/s11094-014-1051-5)
69. Shebanova AS, Bogdanov AG, Ismagulova TT, **Feofanov AV**, Semenyuk PI, Muronets VI, Erokhina MV, Onishchenko GE, Kirpichnikov MP, Shaitan KV (2014). Application of the analytical transmission electron microscopy techniques for detection, identification and visualization of localization of nanoparticles of titanium and cerium oxides in mammalian cells. *Biophysics (Oxf)* 59 (2), 284–292, [10.1134/S0006350914020237](https://doi.org/10.1134/S0006350914020237)
70. Hoang AN, Vo HDM, Vo NP, Kudryashova KS, Nekrasova OV, **Feofanov AV**, Kirpichnikov MP, Andreeva TV, Serebryakova MV, Tsetlin VI, Utkin YN (2014). Vietnamese Heterometrus laoticus scorpion venom: Evidence for analgesic and anti-inflammatory activity and isolation of new polypeptide toxin acting on Kv1.3 potassium channel. *Toxicon* 77, 40–48, [10.1016/j.toxicon.2013.10.027](https://doi.org/10.1016/j.toxicon.2013.10.027)
71. Sharonov GV, Bocharov EV, Kolosov PM, Astapova MV, Arseniev AS, **Feofanov AV** (2014). Point mutations in dimerization motifs of the transmembrane domain stabilize active or inactive state of the EphA2 receptor tyrosine kinase. *J Biol Chem* 289 (21), 14955–14964, [10.1074/jbc.M114.558783](https://doi.org/10.1074/jbc.M114.558783)
72. Kuznetsov AS, Dubovskii PV, Vorontsova OV, **Feofanov AV**, Efremov RG (2014). Interaction of linear cationic peptides with phospholipid membranes and polymers of sialic acid. *Biochemistry (Mosc)* 79 (5), 459–468, [10.1134/S0006297914050101](https://doi.org/10.1134/S0006297914050101)
73. Efremenko AV, Ignatova AA, Grin MA, Sivaev IB, Mironov AF, Bregadze VI, **Feofanov AV** (2014). Chlorin e₆ fused with a cobalt-bis(dicarbollide) nanoparticle provides efficient boron delivery and photoinduced cytotoxicity in cancer cells. *Photochem Photobiol Sci* 13 (1), 92–102, [10.1039/c3pp50226k](https://doi.org/10.1039/c3pp50226k)
74. Grin MA, Reshetnikov RI, Yakubovskaya RI, Plotnikova EA, Morozova NB, Tsigankov AA, Efremenko AV, Ermakova DE, **Feofanov AV**, Mironov AF (2014). Novel bacteriochlorophyll-based photosensitizers and their photodynamic activity. *J Porphyr Phthalocyanines* 18 (12), 129–138, [10.1142/S1088424613501265](https://doi.org/10.1142/S1088424613501265)
75. Pluzhnikov KA, Kozlov SA, Vassilevski AA, Vorontsova OV, **Feofanov AV**, Grishin EV (2014). Linear antimicrobial peptides from Ectatomma quadridens ant venom. *Biochimie* 107 (PB), 211–215,

[10.1016/j.biochi.2014.09.012](https://doi.org/10.1016/j.biochi.2014.09.012)

76. Vassilevski AA, Sachkova MY, Ignatova AA, Kozlov SA, **Feofanov AV**, Grishin EV (2013). Spider toxins comprising disulfide-rich and linear amphipathic domains: A new class of molecules identified in the lynx spider *Oxyopes takobius*. *FEBS J* 280 (23), 6247–6261, [10.1111/febs.12547](https://doi.org/10.1111/febs.12547)
77. Okorochenkov SA, Zheltukhina GA, Mirchink EP, Isakova EB, **Feofanov AV**, Nebolsin VE (2013). Synthesis, Anti-MRSA, and Anti-VRE activity of hemin conjugates with amino acids and branched peptides. *Chem Biol Drug Des* 82 (4), 410–417, [10.1111/cbdd.12163](https://doi.org/10.1111/cbdd.12163)
78. Kudryashova KS, Nekrasova OV, Kuzmenkov AI, Vassilevski AA, Ignatova AA, Korolkova YV, Grishin EV, Kirpichnikov MP, **Feofanov AV** (2013). Fluorescent system based on bacterial expression of hybrid KcsA channels designed for Kv1.3 ligand screening and study. *Anal Bioanal Chem* 405 (7), 2379–2389, [10.1007/s00216-012-6655-6](https://doi.org/10.1007/s00216-012-6655-6)
79. Anh HN, Hoang VDM, Kudryashova KS, Nekrasova OV, **Feofanov AV**, Andreeva TV, Tsetlin VI, Utkin YN (2013). Hetlaxin, a new toxin from the *Heterometrus laoticus* scorpion venom, interacts with voltage-gated potassium channel Kv1.3. *Dokl Biochem Biophys* 449 (1), 109–111, [10.1134/S1607672913020142](https://doi.org/10.1134/S1607672913020142)
80. **Feofanov AV** (2012). Confocal fluorescence spectral imaging technique and its applications to drug development. , , [10.1109/PGC.2012.6457865](https://doi.org/10.1109/PGC.2012.6457865)
81. Nekrasova OV, Sharonov GV, Tikhonov RV, Kolosov PM, Astapova MV, Yakimov SA, Tagvey AI, Korchagina AA, Bocharova OV, Wulfson AN, **Feofanov AV**, Kirpichnikov MP (2012). Receptor-binding domain of ephrin-A1: Production in bacterial expression system and activity. *Biochemistry (Mosc)* 77 (12), 1387–1394, [10.1134/S0006297912120073](https://doi.org/10.1134/S0006297912120073)
82. Smirnova E, Gusev A, Zaytseva O, Sheina O, Tkachev A, Kuznetsova E, Lazareva E, Onishchenko G, **Feofanov A**, Kirpichnikov M (2012). Uptake and accumulation of multiwalled carbon nanotubes change the morphometric and biochemical characteristics of *Onobrychis arenaria* seedlings. *FRONT CHEM SCI ENG* 6 (2), 132–138, [10.1007/s11705-012-1290-5](https://doi.org/10.1007/s11705-012-1290-5)
83. Efremenko AV, Ignatova AA, Borsheva AA, Grin MA, Bregadze VI, Sivaev IB, Mironov AF, **Feofanov AV** (2012). Cobalt bis(dicarbollide) versus closo-dodecaborate in boronated chlorin e 6 conjugates: Implications for photodynamic and boron-neutron capture therapy. *Photochem Photobiol Sci* 11 (4), 645–652, [10.1039/c2pp05237g](https://doi.org/10.1039/c2pp05237g)
84. Efremenko , Ignatova , Borsheva , Grin , Bregadze , Sivaev , Mironov , **Feofanov** (2012). Confocal microscopy and spectral imaging technique: contribution to the development of neutron sensitizers for anticancer BNCT. 1, 84–90.
85. Dubovskii PV, Vassilevski AA, Samsonova OV, Egorova NS, Kozlov SA, **Feofanov AV**, Arseniev AS, Grishin EV (2011). Novel lynx spider toxin shares common molecular architecture with defense peptides from frog skin. *FEBS J* 278 (22), 4382–4393, [10.1111/j.1742-4658.2011.08361.x](https://doi.org/10.1111/j.1742-4658.2011.08361.x)
86. Nolde SB, Vassilevski AA, Rogozhin EA, Barinov NA, Balashova TA, Samsonova OV, Baranov YV, **Feofanov AV**, Egorov TA, Arseniev AS, Grishin EV (2011). Disulfide-stabilized helical hairpin structure and activity of a novel antifungal peptide EcAMP1 from seeds of barnyard grass (*Echinochloa crus-galli*). *J Biol Chem* 286 (28), 25145–25153, [10.1074/jbc.M110.200378](https://doi.org/10.1074/jbc.M110.200378)
87. Vorontsova OV, Egorova NS, Arseniev AS, **Feofanov AV** (2011). Haemolytic and cytotoxic action of laticin Ltc2a. *Biochimie* 93 (2), 227–241, [10.1016/j.biochi.2010.09.016](https://doi.org/10.1016/j.biochi.2010.09.016)
88. Vassilevski AA, Fedorova IM, Maleeva EE, Korolkova YV, Efimova SS, Samsonova OV, Schagina LV, **Feofanov AV**, Magazanik LG, Grishin EV (2010). Novel class of spider toxin: Active principle from the yellow sac spider *Cheiracanthium puncturium* venom is a unique two-domain polypeptide. *J Biol Chem* 285 (42), 32293–32302, [10.1074/jbc.M110.104265](https://doi.org/10.1074/jbc.M110.104265)
89. Grin MA, Titeev RA, Brittal DI, Chestnova AV, **Feofanov AV**, Lobanova IA, Sivaev IB, Bregadze VI, Mironov AF (2010). Synthesis of cobalt bis(dicarbollide) conjugates with natural chlorins by the Sonogashira reaction. *RUSS CHEM B+* 59 (1), 219–224, [10.1007/s11172-010-0065-8](https://doi.org/10.1007/s11172-010-0065-8)
90. Ignatova AA, Maslova AS, Kirpichnikov MP, **Feofanov AV** (2009). Interaction of the photosensitizer 13,15-N-(3'-hydroxypropyl)cycloimide of chlorin p(6) with normal and cancerous blood cells. *Bioorg Khim* 35 (6), 830–836.
91. Ignatova AA, Maslova AS, Kirpichnikov MP, **Feofanov AV** (2009). Interaction of the photosensitizer 13,15-N-(3'-hydroxypropyl) cycloimide chlorin p6with normal and cancerous blood cells. *Russ. J. Bioorganic Chem.*

- 35 (6), 746–751, [10.1134/S1068162009060119](https://doi.org/10.1134/S1068162009060119)
92. Bregadze VI, Semioshkin AA, Laskova JN, Berzina MY, Lobanova IA, Sivaev IB, Grin MA, Titeev RA, Brittal DI, Ulybina OV, Chestnova AV, Ignatova AA, **Feofanov AV**, Mironov AF (2009). Novel types of boronated chlorin e6 conjugates via 'click chemistry'. *Appl Organomet Chem* 23 (9), 370–374, [10.1002/aoc.1521](https://doi.org/10.1002/aoc.1521)
93. Polyansky AA, Vassilevski AA, Volynsky PE, Vorontsova OV, Samsonova OV, Egorova NS, Krylov NA, **Feofanov AV**, Arseniev AS, Grishin EV, Efremov RG (2009). N-terminal amphipathic helix as a trigger of hemolytic activity in antimicrobial peptides: A case study in laticins. *FEBS Lett* 583 (14), 2425–2428, [10.1016/j.febslet.2009.06.044](https://doi.org/10.1016/j.febslet.2009.06.044)
94. Nekrasova O, Tagway A, Ignatova A, **Feofanov A**, Kirpichnikov M (2009). Studying of Membrane Localization of Recombinant Potassium Channels in E.coli. *Acta Naturae* 1 (1), 91–5.
95. Nekrasova OV, Ignatova AA, Nazarova AI, **Feofanov AV**, Korolkova YV, Boldyreva EF, Tagvei AI, Grishin EV, Arseniev AS, Kirpichnikov MP (2009). Recombinant Kv channels at the membrane of escherichia coli bind specifically agitoxin2. *J Neuroimmune Pharmacol* 4 (1), 83–91, [10.1007/s11481-008-9116-4](https://doi.org/10.1007/s11481-008-9116-4)
96. Artemenko EO, Egorova NS, Arseniev AS, **Feofanov AV** (2008). Transmembrane domain of EphA1 receptor forms dimers in membrane-like environment. *BIOCHIM BIOPHYS ACTA* 1778 (10), 2361–2367, [10.1016/j.bbamem.2008.06.003](https://doi.org/10.1016/j.bbamem.2008.06.003)
97. Chertkova RV, Sharonov GV, **Feofanov AV**, Bocharova OV, Latypov RF, Chernyak BV, Arseniev AS, Dolgikh DA, Kirpichnikov MP (2008). Proapoptotic activity of cytochrome c in living cells: Effect of K72 substitutions and species differences. *Mol Cell Biochem* 314 (12), 85–93, [10.1007/s11010-008-9768-7](https://doi.org/10.1007/s11010-008-9768-7)
98. Vassilevski AA, Kozlov SA, Samsonova OV, Egorova NS, Karpunin DV, Pluzhnikov KA, **Feofanov AV**, Grishin EV (2008). Cyto-insectotoxins, a novel class of cytolytic and insecticidal peptides from spider venom. *Biochem J* 411 (3), 687–696, [10.1042/BJ20071123](https://doi.org/10.1042/BJ20071123)
99. Nazarova A, Ignatova A, **Feofanov A**, Karmakova T, Pljutinskaya A, Mass O, Grin M, Yakubovskaya R, Mironov A, Maurizot JC (2007). 13,15-N-Cycloimide derivatives of chlorin p6 with isonicotinyl substituent are photosensitizers targeted to lysosomes. *Photochem Photobiol Sci* 6 (11), 1184–1196, [10.1039/b706921a](https://doi.org/10.1039/b706921a)
100. **Феофанов АВ** (2007). Спектральная лазерная сканирующая конфокальная микроскопия в биологических исследованиях. 47, 371–410.
101. Kozlov SA, Vassilevski AA, **Feofanov AV**, Surovoy AY, Karpunin DV, Grishin EV (2006). Laticins, antimicrobial and cytolytic peptides from the venom of the spider *Lachesana tarabaei* (Zodariidae) that exemplify biomolecular diversity. *J Biol Chem* 281 (30), 20983–20992, [10.1074/jbc.M602168200](https://doi.org/10.1074/jbc.M602168200)
102. Sharonov GV, Karmakova TA, Kassies R, Pljutinskaya AD, Grin MA, Refregiers M, Yakubovskaya RI, Mironov AF, Maurizot JC, Vigny P, Otto C, **Feofanov AV** (2006). Cycloimide bacteriochlorin p derivatives: Photodynamic properties and cellular and tissue distribution. *J Free Radic Biol Med* 40 (3), 407–419, [10.1016/j.freeradbiomed.2005.08.028](https://doi.org/10.1016/j.freeradbiomed.2005.08.028)
103. Karmakova T, **Feofanov A**, Pankratov A, Kazachkina N, Nazarova A, Yakubovskaya R, Lebedeva V, Ruziyev R, Mironov A, Maurizot JC, Vigny P (2006). Tissue distribution and in vivo photosensitizing activity of 13,15-[N-(3-hydroxypropyl)]cycloimide chlorin p6 and 13,15-(N-methoxy)cycloimide chlorin p6 methyl ester. *J Photochem Photobiol B* 82 (1), 28–36, [10.1016/j.jphotobiol.2005.08.006](https://doi.org/10.1016/j.jphotobiol.2005.08.006)
104. Nazarova AI, **Feofanov AV**, Karmakova TA, Sharonov GV, Plyutinskaya AD, Yakubovskaya RI, Lebedeva VS, Mironov AF, Maurizot JC, Vigny P (2005). Effect of substituents on photochemical and biological properties of 13,15-N-cycloimide derivatives of chlorin p6. *Bioorg Khim* 31 (5), 535–548.
105. Nazarova AI, **Feofanov AV**, Karmakova TA, Sharonov GV, Plyutinskaya AD, Yakubovskaya RI, Lebedeva VS, Mironov AF, Maurizot JC, Vigny P (2005). Effect of substituents on photochemical and biological properties of 13,15-N-cycloimide derivatives of chlorin p6. *Russ. J. Bioorganic Chem.* 31 (5), 482–494, [10.1007/s11171-005-0066-9](https://doi.org/10.1007/s11171-005-0066-9)
106. **Feofanov AV**, Sharonov GV, Astapova MV, Rodionov DI, Utkin YN, Arseniev AS (2005). Cancer cell injury by cytotoxins from cobra venom is mediated through lysosomal damage. *Biochem J* 390 (1), 11–18, [10.1042/BJ20041892](https://doi.org/10.1042/BJ20041892)
107. Sharonov GV, **Feofanov AV**, Bocharova OV, Astapova MV, Dedukhova VI, Chernyak BV, Dolgikh DA, Arseniev AS, Skulachev VP, Kirpichnikov MP (2005). Comparative analysis of proapoptotic activity of cytochrome c mutants in living cells. *Apoptosis* 10 (4), 797–808, [10.1007/s10495-005-0366-9](https://doi.org/10.1007/s10495-005-0366-9)
108. Fedorova OA, Koshkin AV, Gromov SP, Strokach YP, Valova TM, Alfimov MV, **Feofanov AV**, Alaverdian IS,

- Lokshin VA, Samat A (2005). Transformation of 6'-aminosubstituted spironaphthoxazines induced by Pb(II) and Eu(III) cations. *J Phys Org Chem* 18 (6), 504–512, [10.1002/poc.890](https://doi.org/10.1002/poc.890)
109. **Feofanov AV**, Sharonov GV, Dubinny MA, Astapova MV, Kudelina IA, Dubovskij PV, Rodionov DI, Utkin YN, Arseniev AS (2004). Comparative study of structure and activity of cytotoxins from venom of the cobras *Naja oxiana*, *Naja kaouthia*, and *Naja haje*. *Biochemistry (Mosc)* 69 (10), 1410–1421.
110. Alaverdyan YS, **Feofanov AV**, Gromov SP, Vedernikov AI, Lobova NA, Alfimov MV (2004). Spectroscopy of surface-enhanced raman scattering of a complex with charge transfer between a bis-crownContaining stilbene and a bis-ammonium-alkyl derivative of dipyriddyethylene. *Opt Spectrosc* 97 (4), 560–566, [10.1134/1.1813697](https://doi.org/10.1134/1.1813697)
111. **Feofanov AV**, Sharonov GV, Dubinnyi MA, Astapova MV, Kudelina IA, Dubovskii PV, Rodionov DI, Utkin YN, Arseniev AS (2004). Comparative study of structure and activity of cytotoxins from venom of the cobras *naja oxiana*, *naja kaouthia*, and *naja haje*. *Biochemistry (Mosc)* 69 (10), 1148–1157, [10.1023/B:BIRY.0000046890.46901.7e](https://doi.org/10.1023/B:BIRY.0000046890.46901.7e)
112. Karmakova T, **Feofanov A**, Nazarova A, Grichine A, Yakubovskaya R, Lukyanets E, Maurizot JC, Vigny P (2004). Distribution of metal-free sulfonated phthalocyanine in subcutaneously transplanted murine tumors. *J Photochem Photobiol B* 75 (12), 81–87, [10.1016/j.jphotobiol.2004.05.009](https://doi.org/10.1016/j.jphotobiol.2004.05.009)
113. **Feofanov AV**, Nazarova AI, Karmakova TA, Plyutinskaya AD, Grishin AI, Yakubovskaya RI, Lebedeva VS, Ruziev RD, Mironov AF, Maurizot JC, Vigny P (2004). Photobiological properties of 13,15-N-(carboxymethyl)- and 13,15-N-(2-carboxyethyl)cycloimide derivatives of chlorin p6. *Russ. J. Bioorganic Chem.* 30 (4), 374–384, [10.1023/B:RUBI.0000037265.90931.49](https://doi.org/10.1023/B:RUBI.0000037265.90931.49)
114. Vodovozova EL, Nazarova AI, **Feofanov AV**, Kholodenko RV, Pazynina GV, Gaenko GP, Bovin NV, Molotkovsky JG (2004). Interaction of Liposomes Bearing Carbohydrate Determinants with Melanoma Cells. *BIOL MEMBRANY* 21 (1), 53–64.
115. **Feofanov A**, Sharonov G, Grichine A, Karmakova T, Pljutinskaya A, Lebedeva V, Ruziyev R, Yakubovskaya R, Mironov A, Refregier M, Maurizot JC, Vigny P (2004). Comparative Study of Photodynamic Properties of 13,15-N-cycloimide Derivatives of Chlorin p6. *Photochem Photobiol* 79 (2), 172–188, [10.1562/0031-8655\(2004\)079<0172:CSOPPO>2.0.CO;2](https://doi.org/10.1562/0031-8655(2004)079<0172:CSOPPO>2.0.CO;2)
116. Fedorova OA, Maurel F, Ushakov EN, Nazarov VB, Gromov SP, Chebunkova AV, **Feofanov AV**, Alaverdian IS, Alfimov MV, Barigelletti F (2003). Synthesis, photochromic behaviour and light-controlled complexation of 3,3-diphenyl-3H-benzo[f]chromenes containing a dimethylamino group or an aza-15-crown-5 ether unit. *New J Chem* 27 (12), 1720–1730, [10.1039/b304874h](https://doi.org/10.1039/b304874h)
117. Alaverdian IS, **Feofanov AV**, Gromov SP, Vedernikov AI, Lobova NA, Alfimov MV (2003). Structure of Charge-Transfer Complexes Formed by Biscrown Stilbene and Dipyriddyethylene Derivatives as Probed by Surface-Enhanced Raman Scattering Spectroscopy. *J Phys Chem A* 107 (45), 9542–9546, [10.1021/jp027504z](https://doi.org/10.1021/jp027504z)
118. Chudakov DM, **Feofanov AV**, Mudrik NN, Lukyanov S, Lukyanov KA (2003). Chromophore environment provides clue to "kindling fluorescent protein" riddle. *J Biol Chem* 278 (9), 7215–7219, [10.1074/jbc.M211988200](https://doi.org/10.1074/jbc.M211988200)
119. Filatov AV, Shmigol IB, Sharonov GV, **Feofanov AV**, Volkov Y (2003). Direct and indirect antibody-induced TX-100 resistance of cell surface antigens. *Immunol Lett* 85 (3), 287–295, [10.1016/S0165-2478\(02\)00244-4](https://doi.org/10.1016/S0165-2478(02)00244-4)
120. Filatov AV, Shmigol IB, Kuzin II, Sharonov GV, **Feofanov AV** (2003). Resistance of cellular membrane antigens to solubilization with Triton X-100 as a marker of their association with lipid rafts - Analysis by flow cytometry. *Immunotechnology* 278 (12), 211–219, [10.1016/S0022-1759\(03\)00188-1](https://doi.org/10.1016/S0022-1759(03)00188-1)
121. **Feofanov A**, Grichine A, Karmakova T, Pljutinskaya A, Lebedeva V, Filyasova A, Yakubovskaya R, Mironov A, Egret-Charlier M, Vigny P (2002). Near-infrared photosensitizer based on a cycloimide derivative of chlorin p6: 13,15-N-(3'-hydroxypropyl)cycloimide chlorin p6. *Photochem Photobiol* 75 (6), 633–643, [10.1562/0031-8655\(2002\)075<0633:NIPBOA>2.0.CO;2](https://doi.org/10.1562/0031-8655(2002)075<0633:NIPBOA>2.0.CO;2)
122. **Feofanov A**, Grichine A, Karmakova T, Kazachkina N, Pecherskih E, Yakubovskaya R, Lukyanets E, Derkacheva V, Egret-Charlier M, Vigny P (2002). Chelation with metal is not essential for antitumor photodynamic activity of sulfonated phthalocyanines. *Photochem Photobiol* 75 (5), 527–533, [10.1562/0031-8655\(2002\)075<0527:CWMINE>2.0.CO;2](https://doi.org/10.1562/0031-8655(2002)075<0527:CWMINE>2.0.CO;2)
123. Gromov SP, Vedernikov AI, Ushakov EN, Kuzmina LG, **Feofanov AV**, Avakyan VG, Churakov AV,

- Alaverdyan YS, Malysheva EV, Alfimov MV, Howard JAK, Eliasson B, Edlund UG (2002). Synthesis, structure, spectroscopic studies, and complexation of novel crown ether butadienyl dyes. *Helv Chim Acta* 85 (1), 60–81, [10.1002/1522-2675\(200201\)85:1<60::AID-HLCA60>3.0.CO;2-C](https://doi.org/10.1002/1522-2675(200201)85:1<60::AID-HLCA60>3.0.CO;2-C)
124. Fedorova OA, Strokach YP, Gromov SP, Koshkin AV, Valova TM, Alfimov MV, **Feofanov AV**, Alaverdian IS, Lokshin VA, Samat A, Guglielmetti R, Girling RB, Moore JN, Hester RE (2002). Effect of metal cations on the photochromic properties of spironaphthoxazines conjugated with aza-15(18)-crown-5(6) ethers. *New J Chem* 26 (9), 1137–1145, [10.1039/b200790h](https://doi.org/10.1039/b200790h)
125. **Feofanov AV**, Grishin AI, Kudelina IA, Shitova LA, Karmakova TA, Yakubovskaya RI, Egret-Charlier M, Vigny P (2001). The study of localization and molecular interactions of biologically active compounds in living cells and tissue slices by confocal spectral imaging technique. *Bioorg Khim* 25 (12), 892–902.
126. Galanina O, **Feofanov A**, Tuzikov AB, Rapoport E, Crocker PR, Grichine A, Egret-Charlier M, Vigny P, Le Pendu J, Bovin NV (2001). Fluorescent carbohydrate probes for cell lectins. *Spectrochim Acta A* 57 (11), 2285–2296, [10.1016/S1386-1425\(01\)00478-4](https://doi.org/10.1016/S1386-1425(01)00478-4)
127. Filyasova AI, Kudelina IA, **Feofanov AV** (2001). A spectroscopic study of the interaction of tetrasulfonated aluminum phthalocyanine with human serum albumin. *J Mol Struct* 565566, 173–176, [10.1016/S0022-2860\(00\)00931-5](https://doi.org/10.1016/S0022-2860(00)00931-5)
128. **Feofanov AV**, Alaverdian YS, Gromov SP, Fedorova OA, Alfimov MV (2001). SERS spectroscopy study of merocyanine form of spironaphthoxazine derivatives. *J Mol Struct* 563564, 193–197, [10.1016/S0022-2860\(01\)00495-1](https://doi.org/10.1016/S0022-2860(01)00495-1)
129. Grichine A, **Feofanov A**, Karmakova T, Kazachkina N, Pecherskih E, Yakubovskaya R, Mironov A, Egret-Charlier M, Vigny P (2001). Influence of the substitution of 3-vinyl by 3-formyl group on the photodynamic properties of chlorin P6: Molecular, cellular and in vivo studies. *Photochem Photobiol* 73 (3), 267–277, [10.1562/0031-8655\(2001\)0730267IOTSOV2.0.CO2](https://doi.org/10.1562/0031-8655(2001)0730267IOTSOV2.0.CO2)
130. **Feofanov AV**, Grichine AI, Shitova LA, Karmakova TA, Yakubovskaya RI, Egret-Charlier M, Vigny P (2000). Confocal Raman microspectroscopy and imaging study of theraphthal in living cancer cells. *Biophys J* 78 (1), 499–512, [10.1016/S0006-3495\(00\)76612-4](https://doi.org/10.1016/S0006-3495(00)76612-4)
131. **Feofanov AV**, Grishin AI, Kudelina IA, Shitova LA, Karmakova TA, Yakubovskaya RI, Egret-Charlier M, Vigny P (1999). Study of the localization and molecular interactions of biologically active compounds in living cells and tissue slices by the confocal spectral imaging technique. *Russ. J. Bioorganic Chem.* 25 (12), 793–802.
132. **Feofanov A**, Charonov S, Fleury F, Kudelina I, Jardillier JC, Nabiev I (1999). Confocal spectral imaging analysis of intracellular interactions of mitoxantrone at different phases of the cell cycle. *Anticancer Res* 19 (6), 5341–5348.
133. Oleinikov VA, **Feofanov AV**, Shiyan SD, Tuzikov AB, Kryukov EY, Yanul AI, Bovin NV, Nabiev IR (1998). Surface-enhanced raman scattering spectroscopy study of carbohydrate chains in α 1-acid glycoprotein and pseudoglycoproteins. *Russ. J. Bioorganic Chem.* 24 (6), 361–369.
134. Oleinikov VA, **Feofanov AV**, Shiyan SD, Tuzikov AB, Kryukov EY, Yanul AI, Bovin NV, Nabiev IR (1998). Surface-enhanced Raman Scattering Spectroscopy Study of Carbohydrate Chains in α 1-Acid Glycoprotein and Pseudoglycoproteins. *Bioorg Khim* 24 (6), 420–421.
135. Fleury F, Ianoul A, Kryukov E, Sukhanova A, Kudelina I, Wynne-Jones A, Bronstein IB, Maizieres M, Berjot M, Dodson GG, Wilkinson AJ, Holden JA, **Feofanov AV**, Alix AJP, Jardillier JC, Nabiev I (1998). Raman and CD spectroscopy of recombinant 68-kDa DNA human topoisomerase I and its complex with suicide DNA-substrate. *Biochemistry* 37 (41), 14630–14642, [10.1021/bi9806495](https://doi.org/10.1021/bi9806495)
136. Oleinikov VA, **Feofanov AV**, Shiian SD, Tuzikov AB, Kriukov EI, Ianul AI, Bovin NB, Nabiev IR (1998). Surface enhanced Raman spectroscopy for characterization of structural characteristics of carbon chains in alpha1-acid glycoprotein and pseudoglycoproteins. *Bioorg Khim* 24 (6), 412–421.
137. Tarabara VV, Nabiev IR, **Feofanov AV** (1998). Surface-enhanced Raman scattering (SERS) study of mercaptoethanol monolayer assemblies on silver citrate hydrosol. Preparation and characterization of modified hydrosol as a SERS-active substrate. *Langmuir* 14 (5), 1092–1098, [10.1021/la9709711](https://doi.org/10.1021/la9709711)
138. **Feofanov AV**, Oleinikov VA, Tuzikov AB, Yanoul AI, Kryukov EY, Bovin NV, Nabiev IR (1997). Study of Sialylated Neoglycoconjugates by Surface-Enhanced Raman Scattering Spectroscopy. *Bioorg Khim* 23 (11), 917–918.
139. **Feofanov AV**, Yanul AI, Oleinikov VA, Nabiev IR (1997). Determination of equilibrium constants of

- complexation of Mg²⁺ ions by some Crown-Ether ionophores by the method of surface-enhanced Raman scattering. *Opt Spectrosc* 82 (3), 377–383.
140. **Feofanov AV**, Oleinikov VA, Tuzikov AB, Yanoul AI, Kryukov EY, Bovin NV, Nabiev IR (1997). Study of sialylated neoglycoconjugates by surface-enhanced Raman scattering spectroscopy. *Russ. J. Bioorganic Chem.* 23 (11), 810–817.
 141. **Feofanov A**, Ianoul A, Kryukov E, Maskevich S, Vasiliuk G, Kivach L, Nabiev I (1997). Nondisturbing and Stable SERS-Active Substrates with Increased Contribution of Long-Range Component of Raman Enhancement Created by High-Temperature Annealing of Thick Metal Films. *Anal Chem* 69 (18), 3731–3740, [10.1021/ac970304c](https://doi.org/10.1021/ac970304c)
 142. Fleury F, Ianoul A, Berjot M, **Feofanov A**, Alix AJP, Nabiev I (1997). Camptothecin-binding site in human serum albumin and protein transformation induced by drug binding. *FEBS Lett* 411 (23), 215–220, [10.1016/S0014-5793\(97\)00693-5](https://doi.org/10.1016/S0014-5793(97)00693-5)
 143. **Feofanov A**, Ianoul A, Gromov S, Fedorova O, Alfimov M, Nabiev I (1997). Complexation of photochromic crown ether styryl dyes with Mg²⁺ as probed by surface-enhanced Raman scattering spectroscopy. *J Phys Chem B* 101 (20), 4077–4084, [10.1021/jp964076m](https://doi.org/10.1021/jp964076m)
 144. **Feofanov A**, Sharonov S, Kudelina I, Fleury F, Nabiev I (1997). Localization and molecular interactions of mitoxantrone within living K562 cells as probed by confocal spectral imaging analysis. *Biophys J* 73 (6), 3317–3327, [10.1016/S0006-3495\(97\)78356-5](https://doi.org/10.1016/S0006-3495(97)78356-5)
 145. **Feofanov A**, Sharonov S, Fleury F, Kudelina I, Nabiev I (1997). Quantitative confocal spectral imaging analysis of mitoxantrone within living K562 cells: Intracellular accumulation and distribution of monomers, aggregates, naphthoquinoline metabolite, and drug-target complexes. *Biophys J* 73 (6), 3328–3336, [10.1016/S0006-3495\(97\)78357-7](https://doi.org/10.1016/S0006-3495(97)78357-7)
 146. **Feofanov A**, Ianoul A, Oleinikov V, Gromov S, Fedorova O, Alfimov M, Nabiev I (1996). Surface-enhanced resonance Raman spectra of photochromic crown ether styryl dyes, their model chromophores, and their complexes with Mg²⁺. *J Phys Chem* 100 (6), 2154–2160, [10.1021/jp9513024](https://doi.org/10.1021/jp9513024)
 147. Yu Kryukov E, **Feofanov AV**, Oleinikov VA, Vereshchetin VP, Yu Zaitsev S, Gromov SP, Fedorova A, Maskevich SA, Kivach LN, Zubov VP, Nabiev IR, Alfimov MV (1996). Aggregation and photoisomerization of amphiphilic crown-ether styryl dye in monolayers at the interface. *RUSS CHEM B+* 45 (10), 2362–2368, [10.1007/bf01435383](https://doi.org/10.1007/bf01435383)
 148. Maskevich SA, Sveklo IF, **Feofanov AV**, Yanoul AI, Oleinikov VA, Gromov SP, Fedorova OA, Alfimov MV, Nabiev IR, Kivach LN (1996). SERS-active substrates based on thin silver films annealed at high temperatures: A comparative study by techniques of atomic-force microscopy and surface-enhanced Raman scattering spectroscopy. *Opt Spectrosc* 81 (1), 83–90.
 149. **Feofanov AV**, Oleinikov VA, Tuzikov AB, Ianoul AI, Kryukov EY, Sokolov KV, Bovin NV, Nabiev IR (1996). Surface-Enhanced Raman Scattering Spectroscopy of Sialosides and Their Derivatives. *Bioorg Khim* 22 (9), .
 150. **Feofanov AV**, Baranov AV, Fleury F, Riou JF, Nabiev IR, Manfait M (1996). DNA topoisomerase I changes the mode of interaction between camptothecin drugs and DNA as probed by UV-resonance Raman spectroscopy. *FEBS Lett* 396 (23), 289–292, [10.1016/0014-5793\(96\)01118-0](https://doi.org/10.1016/0014-5793(96)01118-0)
 151. **Feofanov AV**, Oleinikov VA, Tuzikov AB, Ianoul AI, Kryukov EY, Sokolov KV, Bovin NV, Nabiev IR (1996). Surface-enhanced Raman scattering spectroscopy of sialosides and their derivatives. *Russ. J. Bioorganic Chem.* 22 (9), 605–614.
 152. **Feofanov A**, Sharonov S, Valisa P, Da Silva E, Nabiev I, Manfait M (1995). A new confocal stigmatic spectrometer for micro-Raman and microfluorescence spectral imaging analysis: Design and applications. *Rev Sci Instrum* 66 (5), 3146–3158, [10.1063/1.1145544](https://doi.org/10.1063/1.1145544)
 153. **Feofanov AV**, Ianoul AI, Oleinikov VA, Nabiev IR, Gromov SP, Fedorova OA, Alfimov MV (1995). Crown-ether styryl dyes: 16. Betaines of photochromic 15-crown-5 ethers and their complexes with Mg²⁺: a surface enhanced Raman scattering spectroscopy study. *RUSS CHEM B+* 44 (12), 2323–2330, [10.1007/BF00713602](https://doi.org/10.1007/BF00713602)
 154. Sharonov S, Nabiev I, Chourpa I, **Feofanov A**, Valisa P, Manfait M (1994). Confocal three-dimensional scanning laser Raman–SERS–fluorescence microprobe. Spectral imaging and high-resolution applications. *J Raman Spectrosc* 25 (78), 699–707, [10.1002/jrs.1250250733](https://doi.org/10.1002/jrs.1250250733)
 155. **Feofanov AV**, Okolelov VI, Tatarinov AP, Martynova ES, Efremov RG, Nabiev IR, Pashchenko VZ, Manykin

- EA (1991). Selective analysis of nucleic acids in mycobacteria according to raman resonance spectroscopy data. *J APPL SPECTROSC* 55 (3), 877–883, [10.1007/BF00662414](https://doi.org/10.1007/BF00662414)
156. Efremov RG, **Feofanov AV**, Nabiev IR (1991). Computerized technique for the analysis of weak signals in UV Raman scattering from biological molecules. *J APPL SPECTROSC* 54 (5), 417–424, [10.1007/BF00660014](https://doi.org/10.1007/BF00660014)
157. Efremov RG, **Feofanov AV**, Dzhandzhugazyan KN, Modyanov NN, Nabiev IR (1990). Study of ATP binding in the active site of Na⁺,K⁺-ATPase as probed by ultraviolet resonance Raman spectroscopy. *FEBS Lett* 260 (2), 261–265, [10.1016/0014-5793\(90\)80117-2](https://doi.org/10.1016/0014-5793(90)80117-2)