

Резюме: Гончарук Сергей Александрович



Адрес

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

Контакты

ms.goncharuk@gmail.com
+7(926)567-15-40
<https://www.ibch.ru/users/745>

Образование

2008– 2008	Россия, Москва	Московский государственный университет им. М.В. Ломоносова, кафедра биоинженерии биологического факультета	Защита кандидатской диссертации по биологическим наукам (специальность 03.00.02 Биофизика)
2005– 2008	Россия, Долгопрудный	Московский Физико-Технический Институт (Государственный Университет) (МФТИ)	Аспирант.
2002– 2005	Россия, Москва	Институт Биоорганической химии имени академиков М.М. Шемякина и Ю.А. Овчинникова РАН, Учебно Научный Центр.	
1999– 2005	Россия, Долгопрудный	Московский Физико-Технический Институт (Государственный Университет) (МФТИ)	Бакалавр. Магистр.

Работа

2020–наст.вр.	Россия, Долгопрудный	МФТИ	доцент
2002–наст.вр.	Россия, Москва	ИБХ РАН	инж.-иссл. / мнс / нс /снс
2008–2018	Россия, Москва	МГУ им М.В. Ломоносова	научный сотрудник

Работа в ИБХ

2018–наст.вр.	Старший научный сотрудник
2008–2018	Научный сотрудник
2002–2008	Младший научный сотрудник

Владение языками

русский, английский

Научные интересы

Структурная биология, молекулярная биология, биофизика, биохимия, эволюция (биология), эволюция (физика).

Членство в сообществах

FEBS

Степени и звания

Ссылки и контакты

<https://www.penzhouse.com>, ORCID: [0000-0002-0263-6462](https://orcid.org/0000-0002-0263-6462), [Google Scholar](#), ResearcherID: [Q-4481-2016](https://publons.com/urn/urn:li:person:Q-4481-2016), Scopus: [35322291200](https://scopus.com/authid/detail.uri?authorid=35322291200), SPIN ПИНЦ: 1482-3575, ID ПИНЦ - 1059484

Гранты и проекты

-
- 2022– наст.вр. [Структурные основы функционирования нейротрофиновых рецепторов](#)
-
- 2020– 2022 [Исследование структурных основ взаимодействия мембранных белков P75 и SORCS2 в процессе внутриклеточной сигнализации](#)
-
- 2018– 2023 [Разработка новых молекулярных инструментов ферментативного и флуорогенного флуоресцентного мечения для прижизненной визуализации в живых системах](#)
-
- 2019– 2022 [Структурная биология мембранных белков для создания новых лекарственных и диагностических средств](#)
-
- 2020– 2022 [Изучение роли внеклеточного примембранного региона и трансмембранного домена рецептора нейротрофинов TrkA в процессе передачи сигнала через мембрану](#)
-
- 2020– 2021 [Исследование структурных основ внутриклеточной сигнализации Толл-подобных рецепторов методами спектроскопии ЯМР в растворе](#)
-
- 2014– 2018 [Структурные основы молекулярных механизмов передачи сигнала интегральными мембранными белками I типа](#)
-

Публикации

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2. Baleeva NS, Bogdanova YA, Goncharuk MV, Sokolov AI, Myasnyanko IN, Kublitski VS, Smirnov AY, Gilvanov AR, **Goncharuk SA**, Mineev KS, Baranov MS (2024). A Combination of Library Screening and Rational Mutagenesis Expands the Available Color Palette of the Smallest Fluorogen-Activating Protein Tag nanoFAST. *Int J Mol Sci* 25 (5), , [10.3390/ijms25053054](https://doi.org/10.3390/ijms25053054)
3. Goncharuk MV, Vasileva EV, Ananiev EA, Gorokhovatsky AY, Bocharov EV, Mineev KS, **Goncharuk SA** (2023). Facade-Based Bicelles as a New Tool for Production of Active Membrane Proteins in a Cell-Free System. *Int J Mol Sci* 24 (19), , [10.3390/ijms241914864](https://doi.org/10.3390/ijms241914864)
4. Moliner R, Giryh M, Brunello CA, Kovaleva V, Biojone C, Enkavi G, Antenucci L, Kot EF, **Goncharuk SA**, Kaurinkoski K, Kuutti M, Fred SM, Elsilä LV, Sakson S, Cannarozzo C, Diniz CRAF, Seiffert N, Rubiolo A, Haapaniemi H, Meshi E, Nagaeva E, Öhman T, Róg T, Kankuri E, Vilar M, Varjosalo M, Korpi ER, Permi P, Mineev KS, Saarma M, Vattulainen I, Casarotto PC, Castrén E (2023). Psychedelics promote plasticity by directly binding to BDNF receptor TrkB. *Nat Neurosci* 26 (6), 1032–1041, [10.1038/s41593-023-01316-5](https://doi.org/10.1038/s41593-023-01316-5)
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6. Kornilov FD, Slonimskiy YB, Lunegova DA, Egorkin NA, Savitskaya AG, Kleymenov SY, Maksimov EG, **Goncharuk SA**, Mineev KS, Sluchanko NN (2023). Structural basis for the ligand promiscuity of the neofunctionalized, carotenoid-binding fasciclin domain protein AstaP. *Commun Biol* 6 (1), 471, [10.1038/s42003-023-04832-z](https://doi.org/10.1038/s42003-023-04832-z)
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 10. Lushpa VA, Baleeva NS, **Goncharuk SA**, Goncharuk MV, Arseniev AS, Baranov MS, Mineev KS (2022). Spatial Structure of NanoFAST in the Apo State and in Complex with its Fluorogen HBR-DOM2. *Int J Mol Sci* 23 (19), , [10.3390/ijms231911361](https://doi.org/10.3390/ijms231911361)
 11. Artemieva LE, Mineev KS, Arseniev AS, **Goncharuk SA** (2022). Expression, purification and characterization of SORCS2 intracellular domain for structural studies. *Protein Expr Purif* 193, 106058, [10.1016/j.pep.2022.106058](https://doi.org/10.1016/j.pep.2022.106058)
 12. Kot EF, Franco ML, Vasilieva EV, Shabalkina AV, Arseniev AS, **Goncharuk SA**, Mineev KS, Vilar M (2022). Intrinsically disordered regions couple the ligand binding and kinase activation of Trk neurotrophin receptors. *iScience* 25 (6), 104348, [10.1016/j.isci.2022.104348](https://doi.org/10.1016/j.isci.2022.104348)
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 31. Mineev KS, **Goncharuk SA**, Kuzmichev PK, Vilar M, Arseniev AS (2015). NMR Dynamics of Transmembrane and Intracellular Domains of p75NTR in Lipid-Protein Nanodiscs. *Biophys J* 109 (4), 772–782, [10.1016/j.bpj.2015.07.009](https://doi.org/10.1016/j.bpj.2015.07.009)
 32. Mineev KS, **Goncharuk SA**, Arseniev AS (2014). Toll-like receptor 3 transmembrane domain is able to perform various homotypic interactions: An NMR structural study. *FEBS Lett* 588 (21), 3802–3807, [10.1016/j.febslet.2014.08.031](https://doi.org/10.1016/j.febslet.2014.08.031)
 33. Mineev KS, Lesovoy DM, Usmanova DR, **Goncharuk SA**, Shulepko MA, Lyukmanova EN, Kirpichnikov MP, Bocharov EV, Arseniev AS (2014). NMR-based approach to measure the free energy of transmembrane helix-helix interactions. *BIOCHIM BIOPHYS ACTA* 1838 (1), 164–172, [10.1016/j.bbamem.2013.08.021](https://doi.org/10.1016/j.bbamem.2013.08.021)
 34. Bocharov EV, Lesovoy DM, **Goncharuk SA**, Goncharuk MV, Hristova K, Arseniev AS (2013). Structure of FGFR3 transmembrane domain dimer: Implications for signaling and human pathologies. *Structure* 21 (11), 2087–2093, [10.1016/j.str.2013.08.026](https://doi.org/10.1016/j.str.2013.08.026)
 35. Goncharuk MV, Schulga AA, Ermolyuk YS, Tkach EN, **Goncharuk SA**, Pustovalova YE, Mineev KS, Bocharov EV, Maslennikov IV, Arseniev AS, Kirpichnikov MP (2011). Bacterial synthesis, purification, and solubilization of transmembrane segments of ErbB family receptors. *Mol Biol* 45 (5), 823–832, [10.1134/S0026893311040066](https://doi.org/10.1134/S0026893311040066)
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 38. **Goncharuk SA**, Goncharuk MV, Mayzel ML, Lesovoy DM, Chupin VV, Bocharov EV, Arseniev AS, Kirpichnikov MP (2011). Bacterial Synthesis and Purification of Normal and Mutant Forms of Human FGFR3 Transmembrane Segment. *Acta Naturae* 3 (3), 77–84.
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