

Резюме: Чугунов Антон Олегович



Адрес

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

Контакты

batch2k@yandex.ru
+7(915)1088825
<https://www.ibch.ru/ru/users/3>

Образование

| | | | |
|---------------|-----------------------|---|--|
| 2008– 2008 | Брюссель, Бельгия | Стажировка в Свободном университете Брюсселя | Моделирование структуры комплекса вазоактивного интестинального пептида (ВИП) с его рецептором. Дизайн селективной пары неорецептор-неолиганд |
| 2003– 2006 | Россия, Москва | Московский государственный университет им. М.В. Ломоносова, кафедра биоинженерии биологического факультета | Диплом кандидата физико-математических наук. Тема диссертации: «Новые подходы к молекулярному моделированию трансмембранных доменов рецепторов, действие которых опосредовано G-белками» |
| 1998– 2003 | Россия, Москва | Московский государственный университет им. М.В. Ломоносова, кафедра биофизики биологического факультета | Диплом биофизика с отличием по теме: «Молекулярное моделирование человеческих рецепторов MT1 и MT2 мелатонина» |
| 1994– 1998 | Россия, Зеленоград | ФМШ №1030 | Окончил с золотой медалью |

Работа в ИБХ

| | |
|---------------|---------------------------|
| 2018–наст.вр. | Старший научный сотрудник |
| | Старший научный сотрудник |

Членство в советах и комиссиях ИБХ

| |
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| Ученый совет |
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Владение языками

Русский, Английский

Награды

| | | |
|------|--------------------------------|--|
| 2013 | Медаль Европейской Академии | За работу «Компьютерное моделирование структуры и функций биомембран и мембранных белков» |
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Научные интересы

Меня интересуют принципы пространственной организации белков и механизмы их сворачивания. В первую очередь это касается мембранных белков и рецепторов, таких как G-белоксопряжённые рецепторы. Поскольку выбранная мной методическая сфера — это компьютерное моделирование структуры и динамики биомакромолекул, больше всего мне интересно, удастся ли когда-нибудь моделировать все эти важнейшие процессы на компьютере — без такой большой оглядки на эксперимент, которую всегда приходится делать теперь.

Степени и звания

Кандидат наук (Физико-математические науки, 03.00.02 — Биофизика)

Ссылки и контакты

<http://biomolecula.ru>

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2. Zavarzina II, Kuzmenkov AI, Dobrokhotov NA, Maleeva EE, Korolkova YV, Peigneur S, Tytgat J, Krylov NA, Vassilevski AA, **Chugunov AO** (2024). The scorpion toxin BeKm-1 blocks hERG cardiac potassium channels using an indispensable arginine residue. *FEBS Lett* 598 (8), 889–901, [10.1002/1873-3468.14850](https://doi.org/10.1002/1873-3468.14850)
3. Karnaukhov VK, Shcherbinin DS, **Chugunov AO**, Chudakov DM, Efremov RG, Zvyagin IV, Shugay M (2024). Structure-based prediction of T cell receptor recognition of unseen epitopes using TCReN. *NAT COMPUT SCI* 4, 510–521, [10.1038/s43588-024-00653-0](https://doi.org/10.1038/s43588-024-00653-0)
4. Lyukmanova EN, Zaigraev MM, Kulbatskii DS, Isaev AB, Kukushkin ID, Bychkov ML, Shulepko MA, **Chugunov AO**, Kirpichnikov MP (2023). Molecular Basis for Mambalgins-2 Interaction with Heterotrimeric α -ENaC/ASIC1a/ γ -ENaC Channels in Cancer Cells. *Toxins (Basel)* 15 (10), 612, [10.3390/toxins15100612](https://doi.org/10.3390/toxins15100612)
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6. Panina IS, Balandin SV, Tsarev AV, **Chugunov AO**, Tagaev AA, Finkina EI, Antoshina DV, Sheremeteva EV, Paramonov AS, Rickmeyer J, Bierbaum G, Efremov RG, Shenkarev ZO, Ovchinnikova TV (2023). Specific Binding of the α -Component of the Lantibiotic Lichenicidin to the Peptidoglycan Precursor Lipid II Predetermines Its Antimicrobial Activity. *Int J Mol Sci* 24 (2), 1332, [10.3390/ijms24021332](https://doi.org/10.3390/ijms24021332)
7. Zaigraev MM, Lyukmanova EN, Paramonov AS, Shenkarev ZO, **Chugunov AO** (2022). Orientational Preferences of GPI-Anchored Ly6/uPAR Proteins. *Int J Mol Sci* 24 (1), 11, [10.3390/ijms24010011](https://doi.org/10.3390/ijms24010011)
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10. Panina I, Krylov N, Gadalla MR, Aliper E, Kordyukova L, Veit M, **Chugunov A**, Efremov R (2022). Molecular Dynamics of DHHC20 Acyltransferase Suggests Principles of Lipid and Protein Substrate Selectivity. *Int J Mol Sci* 23 (9), , [10.3390/ijms23095091](https://doi.org/10.3390/ijms23095091)
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- Peigneur S, **Chugunov A**, Kozlov S, Sharonova I, Efremov R, Skrebitsky V, Tytgat J, Kirpichnikov M, Lyukmanova E (2021). Human Three-Finger Protein Lypd6 Is a Negative Modulator of the Cholinergic System in the Brain. *Front Cell Dev Biol* 9, 662227, [10.3389/fcell.2021.662227](https://doi.org/10.3389/fcell.2021.662227)
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