

Резюме: Водовозова Елена Львовна



Адрес

Федеральное государственное
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Институт биорганической химии им.
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Образование

2008	Россия, Москва	Институт биорганической химии им. академиков М.М. Шемякина и Ю.А. Овчинникова РАН (ИБХ)	Диплом доктора химических наук "биохимия"
1985	Россия, Москва	Институт биорганической химии имени М.М. Шемякина АН СССР (ИБХ)	Диплом кандидата химических наук по специальности «биохимия»
1975– 1981	Россия, Москва	Московский государственный университет имени М.В. Ломоносова (МГУ), химический факультет	Диплом химика (с отличием)

Преподавание

Работа в ИБХ

2008–наст.вр.	Заведующий лабораторией
2019–наст.вр.	Главный научный сотрудник
2026–наст.вр.	Профессор

Членство в советах и комиссиях ИБХ

Ученый совет

Научные интересы

Более 20 лет одним из главных направлений работы Е. Л. Водовозовой являются исследования в области создания систем направленной доставки лекарств на основе липосом, липидных производных противоопухолевых химиотерапевтических средств (липофильных пролекарств) и липофильных гликоконъюгатов (молекулярных адресов). Другое направление исследований, которое развивает Е. Л. Водовозова — это разработка фотоаффинных зондов с новым высокоэффективным фотофором (диазоциклопентадиен-2-илкарбонильной меткой).

Степени и звания

2007	Доктор наук (Химические науки, 03.00.04 — Биохимия)
1985	Кандидат наук (Химические науки, Биохимия)

Гранты и проекты

2021– [Белковая корона липосом и ее влияние на взаимодействия с клетками кровеносного русла](#)

2024

2021– [Разработка средств профилактики и лечения COVID-19 и сопутствующих инфекционных заболеваний с использованием генетических технологий](#)
2023

2021– [Белковая корона липосом и ее влияние на взаимодействия с клетками кровеносного русла](#)
2024

2020– [Разработка прототипа вакцинной конструкции для лечения и профилактики новой](#)
2022 [коронавирусной инфекции COVID-19 на основе липосом с набором Т-клеточных эпитопов](#)

2019– [Взаимодействия противоопухолевых липосом, несущих в бислое липофильные пролекарства, с](#)
2021 [эндотелиальными клетками и белками плазмы в динамических условиях: биомоделирование в микроканале микрофлюидного устройства](#)

Публикации

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2. Svirshchevskaya EV, Shchegravina ES, Gracheva IA, Konovalova MV, Akopov SB, Tretiakova DS, Rysina YD, Zapevalova MV, Schmalz HG, Korojev DO, Gavryushin AE, **Vodovozova EL**, Fedorov AY (2025). Hydrophilic and lipophilic colchicinoid formulations for therapy of liver fibrosis in murine model. *Bioorg Chem* 169, 109397, [10.1016/j.bioorg.2025.109397](#)
3. Gaisin KS, Ryabukhina EV, Korojev DO, Mikhalyov II, Zhuravlev ES, Stepanov GA, Boldyrev IA, **Vodovozova EL** (2025). An Ionizable Cationic Lipid for Intracellular RNA Delivery. *Russ. J. Bioorganic Chem.* 51 (5), 1982–1989, [10.1134/S1068162025602149](#)
4. Rubtsova M, Mokrushina Y, Andreev D, Poteshnova M, Shepelev N, Koryagina M, Moiseeva E, Malabuik D, Prokopenko Y, Terekhov S, Chernov A, **Vodovozova E**, Smirnov I, Dontsova O, Gabibov A, Rubtsov Y (2025). A Luciferase-Based Approach for Functional Screening of 5' and 3' Untranslated Regions of the mRNA Component for mRNA Vaccines. *Vaccines (Basel)* 13 (5), 530, [10.3390/vaccines13050530](#)
5. Ryabukhina E, Kobanenko M, Tretiakova D, Shchegravina E, Khaidukov S, Alekseeva A, Boldyrev I, Zgoda V, Tikhonova O, Fedorov AY, Onishchenko N, **Vodovozova E** (2025). Plasma protein corona of liposomes loaded with a phospholipid–allocalchicinoid conjugate enhances their anti-inflammatory potential. *Colloids Surf B Biointerfaces* 253, 114746, [10.1016/j.colsurfb.2025.114746](#)
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7. Tretiakova DS, Volynsky PE, Kobanenko MK, Alekseeva AS, Le-Deygen IM, **Vodovozova EL**, Boldyrev IA (2024). Phosphatidylglycerol in lipid bilayer. Molecular recognition, conformational transitions, hydrogen bonding and microviscosity. *J Mol Liq* 411, [10.1016/j.molliq.2024.125688](#)

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12. Tretiakova DS, Azhikina TL, Boldyrev IA, Svirshchevskaya EV, **Vodovozova EL** (2023). Synthesis of Liposomes Conjugated with CpG-Oligonucleotide and Loaded with a Set of T-Cell Epitopes of the SARS-CoV-2 Virus. *Russ. J. Bioorganic Chem.* 49 (4), 905–911, [10.1134/S1068162023040210](https://doi.org/10.1134/S1068162023040210)
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26. Onishchenko N, Tretiakova D, **Vodovozova E** (2021). Spotlight on the Protein Corona of Liposomes. *Acta Biomater* 134, 57–78, [10.1016/j.actbio.2021.07.074](https://doi.org/10.1016/j.actbio.2021.07.074)
27. **(конференция)** Tretiakova DS, Le-Deygen I, Kudryashova E, **Vodovozova EL** (2021). Serum albumin penetration in the fluid lipid bilayer of liposomes loaded with a melphalan lipophilic prodrug can be prevented by inclusion of phosphatidylinositol or ganglioside GM1. *FEBS Open Bio* 11 (Suppl. 1) 2021, 256 11, 256, [10.1002/2211-5463.13205](https://doi.org/10.1002/2211-5463.13205)
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30. Tretiakova D, Le-Deigen I, Onishchenko N, Kuntsche J, Kudryashova E, **Vodovozova E** (2021). Phosphatidylinositol stabilizes fluid-phase liposomes loaded with a melphalan lipophilic prodrug. *Pharmaceutics* 13 (4), , [10.3390/pharmaceutics13040473](https://doi.org/10.3390/pharmaceutics13040473)
31. Tretiakova DS, Khaidukov SV, Babayants AA, Frolova IS, Shcheglovitova ON, Onishchenko NR, **Vodovozova EL** (2020). Lipophilic Prodrug of Methotrexate in the Membrane of Liposomes Promotes Their Uptake by Human Blood Phagocytes. *Acta Naturae* 12 (1), 99–109, [10.32607/actanaturae.10946](https://doi.org/10.32607/actanaturae.10946)
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