

Резюме: Водовозова Елена Львовна



Адрес

Федеральное государственное
бюджетное учреждение науки
Институт биорганической химии им.
академиков М.М. Шемякина и Ю.А.
Овчинникова Российской академии
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Контакты

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Образование

2007	Россия, Москва	Институт биорганической химии им. академиков М.М. Шемякина и Ю.А. Овчинникова РАН (ИБХ)	Диплом доктора химических наук
1985	Россия, Москва	Институт биорганической химии имени М.М. Шемякина АН СССР (ИБХ)	Диплом кандидата химических наук по специальности «биохимия»
1976–1981	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
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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–наст.вр.	Разработка средств профилактики и лечения COVID-19 и сопутствующих инфекционных заболеваний с использованием генетических технологий
2021–наст.вр.	Белковая корона липосом и ее влияние на взаимодействия с клетками кровеносного русла

2020– 2022	Разработка прототипа вакцинной конструкции для лечения и профилактики новой коронавирусной инфекции COVID-19 на основе липосом с набором Т-клеточных эпитопов
2019– 2021	Взаимодействия противоопухолевых липосом, несущих в бислое липофильные пролекарства, с эндотелиальными клетками и белками плазмы в динамических условиях: биомоделирование в микроканале микрофлюидного устройства

Публикации

1. Semyachkina-Glishkovskaya O, Shirokov A, Blokhina I, Telnova , **Vodovozova E**, Alekseeva A, Boldyrev I, Fedosov I, Dubrovsky A, Khorovodov A, Terskov A, Evsukova A, Elovenko D, Adushkina V, Tzoy M, Kurthz J, Rafilov E (2023). Intranasal Delivery of Liposomes to Glioblastoma by Photostimulation of the Lymphatic System. *Pharmaceutics* 15 (1), 36, [10.3390/pharmaceutics15010036](#)
2. Tretiakova DS, **Vodovozova EL** (2022). Liposomes as Vaccine Delivery Systems and Adjuvants. *BIOL MEMBRANY* 39 (2), 85–106, [10.31857/S0233475522020074](#)
3. Tretiakova D, Kobanenko M, Le-Deygen I, Boldyrev I, Kudryashova E, Onishchenko N, **Vodovozova E** (2022). Spectroscopy Study of Albumin Interaction with Negatively Charged Liposome Membranes: Mutual Structural Effects of the Protein and the Bilayers. *Membranes (Basel)* 12 (11), , [10.3390/membranes12111031](#)
4. Tretiakova DS, **Vodovozova EL** (2022). Liposomes as Adjuvants and Vaccine Delivery Systems. *Biochemistry (Moscow), Supplement Series A: Membrane and Cell Biology* 16 (1), 1–20, [10.1134/S1990747822020076](#)
5. Kobanenko MK, Tretiakova DS, Shchegravina ES, Antipova NV, Boldyrev IA, Fedorov AY, **Vodovozova EL**, Onishchenko NR (2022). Liposomal Formulation of a PLA2-Sensitive Phospholipid–Allocholchicinoid Conjugate: Stability and Activity Studies In Vitro. *Int J Mol Sci* 23 (3), 1034, [10.3390/ijms23031034](#)
6. Semyachkina-Glushkovskaya O, Fedosov I, Shirokov A, **Vodovozova E**, Alekseeva A, Khorovodov A, Blokhina I, Terskov A, Mamedova A, Klimova M, Dubrovsky A, Ageev V, Agranovich I, Vinnik V, Tsven A, Sokolovski S, Rafailov E, Penzel T, Kurths J (2021). Photomodulation of lymphatic delivery of liposomes to the brain bypassing the blood-brain barrier: New perspectives for glioma therapy. *Nanophotonics* 10 (12), 3215–3227, [10.1515/nanoph-2021-0212](#)
7. Gracheva IA, Tretiakova DS, Zamyshlyayeva OG, Kudryashova ES, **Vodovozova EL**, Fedorov AY, Boldyrev IA (2021). Cy5-Labeled Phosphatidylcholine. *Russ. J. Bioorganic Chem.* 47 (5), 1114–1117, [10.1134/S1068162021050265](#)
8. 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](#)
9. **(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](#)
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12. 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](#)
13. 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](#)
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- Lokhmotov A, Arantseva D, Shobolov D, **Vodovozova E** (2020). Liposomal Formulation of a Melphalan Lipophilic Prodrug: Studies of Acute Toxicity, Tolerability, and Antitumor Efficacy. *Curr Drug Deliv* 17 (4), 312–323, [10.2174/1567201817666200214105357](https://doi.org/10.2174/1567201817666200214105357)
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35. Kuznetsova NR, Svirshchevskaya EV, Skripnik IV, Zarudnaya EN, Benke AN, Gaenko GP, Molotkovskii YG, **Vodovozova EL** (2013). Interaction of liposomes bearing a lipophilic doxorubicin prodrug with tumor cells. *Biochem (Mosc) Suppl Ser A Membr Cell Biol* 7 (1), 12–20, [10.1134/S1990747812050108](https://doi.org/10.1134/S1990747812050108)
36. Kuznetsova NR, Svirshchevskaya EV, Sitnikov NS, Abodo L, Sutorius H, Zapke J, Velder J, Thomopoulou P, Oschkinat H, Prokop A, Schmalz HG, Fedorov AY, **Vodovozova EL** (2013). Lipophilic prodrugs of a triazole-containing colchicine analogue in liposomes: biological effects on human tumor cells. *Bioorg Khim* 39 (5), 609–618, [10.7868/S0132342313050102](https://doi.org/10.7868/S0132342313050102)
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