

## Curriculum vitae: Ekaterina Moiseeva

### Address

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### Contacts

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### Education

2000–2005	The Netherlands, Utrecht	Utrecht University6 Veterinary Faculty, Department of Biochemistry and Cell Biology	PhD study, Philosophy doctor, PhD
1972–1977	Moscow, USSR	Moscow State University, Biological Faculty, Department of Embryology	Zoologist, specialization in Embryology

### IBCh positions

2022–to date	Research fellow
2020–2022	Research fellow

### Scientific interests

1. Immune system - tumor interplay: immunological oncology (oncoimmunology)
2. Histopathology of breast cancer and lymphoma
3. Development of novel mouse models of human chronic inflammation diseases

### Scientific societies' membership

1. Member of European Personalized Medicine Association (EPMA)
2. Advisor on medical questions in Russian Academy of Natural Sciences

### Titles

Doctor of Philosophy (Biological sciences)

### Publications

1. Rubtsova M, Mokrushina Y, Andreev D, Potesnova M, Shepelev N, Koryagina M, **Moiseeva E**, Malabuiok 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](https://doi.org/10.3390/vaccines13050530)
2. Gracheva I, Konovalova M, Aronov D, **Moiseeva E**, Fedorov A, Svirshchevskaya E (2021). Size-Dependent Biodistribution of Fluorescent Furano-Allocholchicinoid-Chitosan Formulations in Mice. *Polymers (Basel)* 13 (13), 2045, [10.3390/polym13132045](https://doi.org/10.3390/polym13132045)
3. Rapoport EM, **Moiseeva EV**, Aronov DA, Khaidukov SV, Pazynina GV, Tsygankova SV, Ryzhov IM, Belyanchikov IM, Tyrtyshev TV, McCullough KC, Bovin NV (2020). Glycan-binding profile of DC-like cells. *Glycoconj J* 37 (1), 129–138, [10.1007/s10719-019-09897-9](https://doi.org/10.1007/s10719-019-09897-9)
4. Aronov DA, Zhukov VV, Semushina SG, **Moiseeva EV** (2019). Imbalances in cellular immunological parameters in blood predetermine tumor onset in a natural mouse model of breast cancer. *Cancer Immunol Immunother* 68 (5), 721–729, [10.1007/s00262-019-02312-0](https://doi.org/10.1007/s00262-019-02312-0)
5. Semushina SG, Aronov DA, **Moiseeva EV** (2018). Local Interleukin-2 Immunotherapy of Breast Cancer: Benefit and Risk in a Spontaneous Mouse Model. *Pathol Oncol Res* 25 (3), 945–951, [10.1007/s12253-018-](https://doi.org/10.1007/s12253-018-)

6. Alekseeva AA, **Moiseeva EV**, Onishchenko NR, Boldyrev IA, Singin AS, Budko AP, Shprakh ZS, Molotkovsky JG, Vodovozova EL (2017). Liposomal formulation of a methotrexate lipophilic prodrug: Assessment in tumor cells and mouse T-cell leukemic lymphoma. *Int J Nanomedicine* 12, 3735–3749, [10.2147/IJN.S133034](https://doi.org/10.2147/IJN.S133034)
7. **Moiseeva EV**, Beirakhova KA, Semushina SG, Aronov DA, Makarov DA, Esipov RS (2015). Efficiency of Recombinant Thymosin  $\beta$ 4 in Spontaneous Mouse Model of Chronic Dermatitis. *Bull Exp Biol Med* 158 (5), 670–672, [10.1007/s10517-015-2831-y](https://doi.org/10.1007/s10517-015-2831-y)
8. **Moiseeva EV**, Kuzitsetsova NR, Svirshchevskaya EV, Bovin NV, Sitnikov NS, Shavyrin AS, Beletskaya IP, Combes S, Fedorov AY, Vodovozova EL (2012). Liposome formulations of combretastatin A4 and 4-aryl coumarin analog prodrugs: Antitumor effect in the mouse model of breast cancer. *Biomed Khim* 58 (3), 326–338, [10.18097/pbmc20125803326](https://doi.org/10.18097/pbmc20125803326)
9. Boldyrev IA, Gaenko GP, **Moiseeva EV**, Deligeorgiev T, Kaloianova S, Lesev N, Vasilev A, Molotkovskii IG (2011). [1,10-phenantroline europium complexes: their inclusion in liposomes and cytotoxicity]. *Bioorg Khim* 37 (3), 408–413.
10. Boldyrev IA, Gaenko GP, **Moiseeva EV**, Deligeorgiev T, Kaloyanova S, Lesev N, Vasilev A, Molotkovsky JG (2011). Europium complexes of 1,10-phenanthrolines: Their inclusion in liposomes and cytotoxicity. *Russ. J. Bioorganic Chem.* 37 (3), 364–368, [10.1134/S106816201103006X](https://doi.org/10.1134/S106816201103006X)
11. Sitnikov NS, Boldyrev IA, **Moiseeva EV**, Shavyrin AS, Beletskaya IP, Combes S, Bovin NV, Fedorov AY, Vodovozova EL (2010). Antitumor liposomes bearing a prodrug of combretastatin A-4 and a tetrasaccharide ligand of selectins. *Russ Chem Bull* 59 (12), 2290–2296, [10.1007/s11172-010-0390-y](https://doi.org/10.1007/s11172-010-0390-y)
12. **Moiseeva EV**, Semushina SG, Chaadaeva AV, Sadovnikova ES, Kessler YV (2010). Criteria for analysis of interleukin-2 efficacy in a spontaneous murine mammary tumor model. *Vopr Onkol* 56 (4), 443–449.
13. Kurmyshkina O, Rapoport E, **Moiseeva E**, Korchagina E, Ovchinnikova T, Pazynina G, Belyanchikov I, Bovin N (2010). Glycoprobes as a tool for the study of lectins expressed on tumor cells. *Acta Histochem* 112 (2), 118–126, [10.1016/j.acthis.2009.01.004](https://doi.org/10.1016/j.acthis.2009.01.004)
14. Gaenko GP, **Moiseeva EV**, Savelev OY, Molotkovskii YG, Vodovozova EL (2009). Antitumor activity of the lipid fraction of the spores of an anaerobic bacterium *Clostridium butyricum*. *Microbiology* 78 (5), 580–584, [10.1134/S0026261709050087](https://doi.org/10.1134/S0026261709050087)
15. Chaadaeva AV, Tepkeeva II, **Moiseeva EV**, Svirshchevskaya EV, Demshkin VP (2009). Antitumor activity of the plant remedy peptide extract pe-pm in a new mouse t-lymphoma/leukemia model. *Biomed Khim* 55 (1), 81–88.
16. Den Otter W, Jacobs JJL, Battermann JJ, Hordijk GJ, Krastev Z, **Moiseeva EV**, Stewart RJE, Ziekman PGPM, Koten JW (2008). Local therapy of cancer with free IL-2. *Cancer Immunol Immunother* 57 (7), 931–950, [10.1007/s00262-008-0455-z](https://doi.org/10.1007/s00262-008-0455-z)
17. Tepkeeva II, **Moiseeva EV**, Chaadaeva AV, Zhavoronkova EV, Kessler YV, Semushina SG, Demushkin VP (2008). Evaluation of antitumor activity of peptide extracts from medicinal plants on the model of transplanted breast cancer in CBRB-Rb(8.17)11em mice. *Bull Exp Biol Med* 145 (4), 464–466, [10.1007/s10517-008-0119-1](https://doi.org/10.1007/s10517-008-0119-1)
18. Тепкеева ИИ, **Моисеева ЕВ**, Чаадаева АВ, Жаворонкова ЕВ, Кесслер ЮВ, Семушкина СГ, Дёмушкин ВП (2008). Оценка противоопухолевой активности пептидных экстрактов растений в перевиваемой модели рака молочной железы на мышах линии CBRB-Rb(8.17)11em. 145 (4), 446–448.
19. Lebedenko EN, Balandin TG, Edelweiss EF, Georgiev O, **Moiseeva ES**, Petrov RV, Deyev SM (2007). Visualization of cancer cells by means of the fluorescent EGFP-barnase protein. *Dokl Biochem Biophys* 414 (1), 120–123, [10.1134/S1607672907030088](https://doi.org/10.1134/S1607672907030088)
20. Mushenkova N, **Moiseeva E**, Chaadaeva A, Den Otter W, Svirshchevskaya E (2006). Antitumor effect of double immunization of mice with mucin 1 and its coding DNA. *Anticancer Res* 25 (6), 3893–3898.
21. Мушенкова НВ, **Моисеева ЕВ**, Чаадаева АМ (2006). Индукция гуморального и клеточного ответа на муцин-1 с использованием ДНК иммунизации. 27 (4), 216–221.
22. Gambaryan AS, Boravleva EY, Matrosovich TY, Matrosovich MN, Klenk HD, **Moiseeva EV**, Tuzikov AB, Chinarev AA, Pazynina GV, Bovin NV (2005). Polymer-bound 6' sialyl-N-acetyl lactosamine protects mice infected by influenza virus. *Antiviral Res* 68 (3), 116–123, [10.1016/j.antiviral.2005.07.008](https://doi.org/10.1016/j.antiviral.2005.07.008)
23. **Moiseeva EV**, Rapoport EM, Bovin NV, Miroshnikov AI, Chaadaeva AV, Krasilshchikova MS, Bojenko VK, Bijleveld C, Van Dijk JE, Den Otter W (2005). Galectins as markers of aggressiveness of mouse mammary

- carcinoma: Towards a lectin target therapy of human breast cancer. *Breast Cancer Res Treat* 91 (3), 227–241, [10.1007/s10549-005-0289-8](https://doi.org/10.1007/s10549-005-0289-8)
24. Blishchenko EY, Sazonova OV, Kalinina OA, **Moiseeva EV**, Vass AA, Karelin AA, Ivanov VT (2005). Anti-tumor effect of valorphin in vitro and in vivo: Combined action with cytostatic drugs. *Cancer Biol Ther* 4 (1), 118–124, [10.4161/cbt.4.1.1474](https://doi.org/10.4161/cbt.4.1.1474)
25. **Moiseeva EV**, Merkulova IB, Bijleveld C, Koten JW, Miroshnikov AI, Den Otter W (2003). Therapeutic effect of a single peritumoural dose of IL-2 on transplanted murine breast cancer. *Cancer Immunol Immunother* 52 (8), 487–496, [10.1007/s00262-003-0385-8](https://doi.org/10.1007/s00262-003-0385-8)
26. Rapoport E, Khaidukov S, Baidina O, Bojenko V, **Moiseeva E**, Pasynina G, Karsten U, Nifantev N, LePendu J, Bovin N (2003). Involvement of the Gal $\beta$ 1-3GalNAc $\beta$  structure in the recognition of apoptotic bodies by THP-1 cells. *Eur J Cell Biol* 82 (6), 295–302, [10.1078/0171-9335-00314](https://doi.org/10.1078/0171-9335-00314)
27. Пономарёв АД, Гусарова ГА, **Моисеева ЕВ** (2002). Разработка нового подхода к созданию противоопухолевых вакцин на основе белков теплового шока. (3), 3–8.
28. Vodovozova EL, **Moiseeva EV**, Grechko GK, Gayenko GP, NifantEv NE, Bovin NV, Molotkovsky JG (2000). Antitumour activity of cytotoxic liposomes equipped with selectin ligand SiaLe(X), in a mouse mammary adenocarcinoma model. *Eur J Cancer Clin Oncol* 36 (7), 942–949, [10.1016/S0959-8049\(00\)00029-0](https://doi.org/10.1016/S0959-8049(00)00029-0)
29. Viskova NY, Svirshchevskaya EV, Sapoznikov AM, **Moiseeva EV**, Dizha VI (1998). Immunostimulatory activity of Milife, a novel immunomodulator of fungus origin. *J Immunopharmacol* 20 (1), 119–133, [10.3109/08923979809034812](https://doi.org/10.3109/08923979809034812)
30. **Moiseeva EV**, Vodovozova EL, Mikhalyov II, Molotkovsky JG (1997). Testing of liposomal formulations of DL-melphalan and rubomycin lipid derivatives on new breast cancer mouse model. *Mouse Genome* 95 (4), 895–897.
31. Rodin VV, Voinova II, Volkov VI, Volkova LA, **Moiseeva EV**, Dozmorov IM (1990). Study by electron paramagnetic resonance of blood plasma of mice during rotation stress associated with administration of ascorbic acid and GABA. *Kosm Biol Aviakosm Med* 24 (5), 57–58.
32. Svirshchevskaya EV, Dozmorov IM, **Moiseeva EV** (1990). Role of interleukin-2 serum inhibitor in rejecting the allogenic haemopoietic cells in sublethally irradiated mice. *Radiobiologiya* 30 (5), 634–638.
33. **Moiseeva EV**, Svirshchevskaya EV, Dozmoro IM (1988). The influence of allogeneic lymphocytes on survival of sublethally irradiated mice. *Radiobiologiya* 28 (2), 235–238.