

Marina A Dobrovolskaia

List of Publications by Year in descending order

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Version: 2024-02-01

118
papers

13,316
citations

50276

46
h-index

22166

113
g-index

124
all docs

124
docs citations

124
times ranked

17549
citing authors

#	ARTICLE	IF	CITATIONS
1	Editorial to "Journey into the immunological properties of engineered nanomaterials: There and back again" Advanced Drug Delivery Reviews, 2022, 181, 114100.	13.7	0
2	Critical review of nucleic acid nanotechnology to identify gaps and inform a strategy for accelerated clinical translation. Advanced Drug Delivery Reviews, 2022, 181, 114081.	13.7	31
3	To PEGylate or not to PEGylate: Immunological properties of nanomedicine's most popular component, polyethylene glycol and its alternatives. Advanced Drug Delivery Reviews, 2022, 180, 114079.	13.7	163
4	Anhydrous Nucleic Acid Nanoparticles for Storage and Handling at Broad Range of Temperatures. Small, 2022, 18, e2104814.	10.0	13
5	Applying lessons learned from nanomedicines to understand rare hypersensitivity reactions to mRNA-based SARS-CoV-2 vaccines. Nature Nanotechnology, 2022, 17, 337-346.	31.5	74
6	Immunophenotyping: Analytical approaches and role in preclinical development of nanomedicines. Advanced Drug Delivery Reviews, 2022, 185, 114281.	13.7	9
7	Locking and Unlocking Thrombin Function Using Immunoquiescent Nucleic Acid Nanoparticles with Regulated Retention <i>In Vivo</i> . Nano Letters, 2022, 22, 5961-5972.	9.1	9
8	Opportunities and challenges for the clinical translation of structured DNA assemblies as gene therapeutic delivery and vaccine vectors. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2021, 13, e1657.	6.1	31
9	Challenges in the development of nanoparticle-based imaging agents: Characterization and biology. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2021, 13, e1665.	6.1	23
10	Induction of Cytokines by Nucleic Acid Nanoparticles (NANPs) Depends on the Type of Delivery Carrier. Molecules, 2021, 26, 652.	3.8	26
11	Mini-Factor H Modulates Complement-Dependent IL-6 and IL-10 Release in an Immune Cell Culture (PBMC) Model: Potential Benefits Against Cytokine Storm. Frontiers in Immunology, 2021, 12, 642860.	4.8	15
12	The Recognition of and Reactions to Nucleic Acid Nanoparticles by Human Immune Cells. Molecules, 2021, 26, 4231.	3.8	15
13	2021: an immunotherapy odyssey and the rise of nucleic acid nanotechnology. Nanomedicine, 2021, 16, 1635-1640.	3.3	12
14	The International Society of RNA Nanotechnology and Nanomedicine (ISRNN): The Present and Future of the Burgeoning Field. ACS Nano, 2021, 15, 16957-16973.	14.6	19
15	Innate Immunity Modulating Impurities and the Immunotoxicity of Nanobiotechnology-Based Drug Products. Molecules, 2021, 26, 7308.	3.8	7
16	An In Vitro Assessment of Immunostimulatory Responses to Ten Model Innate Immune Response Modulating Impurities (IIRMI)s and Peptide Drug Product, Teriparatide. Molecules, 2021, 26, 7461.	3.8	7
17	Use of human peripheral blood mononuclear cells to define immunological properties of nucleic acid nanoparticles. Nature Protocols, 2020, 15, 3678-3698.	12.0	36
18	Opportunities, Barriers, and a Strategy for Overcoming Translational Challenges to Therapeutic Nucleic Acid Nanotechnology. ACS Nano, 2020, 14, 9221-9227.	14.6	67

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19	Detection of Beta-Glucan Contamination in Nanotechnology-Based Formulations. <i>Molecules</i> , 2020, 25, 3367.	3.8	13
20	Application of a Scavenger Receptor A1-Targeted Polymeric Prodrug Platform for Lymphatic Drug Delivery in HIV. <i>Molecular Pharmaceutics</i> , 2020, 17, 3794-3812.	4.6	9
21	PEGylated Liposomal Methyl Prednisolone Succinate does not Induce Infusion Reactions in Patients: A Correlation Between in Vitro Immunological and in Vivo Clinical Studies. <i>Molecules</i> , 2020, 25, 558.	3.8	3
22	One-year chronic toxicity evaluation of single dose intravenously administered silica nanoparticles in mice and their Ex vivo human hemocompatibility. <i>Journal of Controlled Release</i> , 2020, 324, 471-481.	9.9	64
23	Subchronic and chronic toxicity evaluation of inorganic nanoparticles for delivery applications. <i>Advanced Drug Delivery Reviews</i> , 2019, 144, 112-132.	13.7	140
24	Understanding Endotoxin and Î²-Glucan Contamination in Nanotechnology-Based Drug Products. , 2019, , 481-496.		1
25	On the issue of transparency and reproducibility in nanomedicine. <i>Nature Nanotechnology</i> , 2019, 14, 629-635.	31.5	149
26	Bridging communities in the field of nanomedicine. <i>Regulatory Toxicology and Pharmacology</i> , 2019, 106, 187-196.	2.7	32
27	Interference of Metal Oxide Nanoparticles with Coagulation Cascade and Interaction with Blood Components. <i>Particle and Particle Systems Characterization</i> , 2019, 36, 1800547.	2.3	6
28	Toll-Like Receptor-Mediated Recognition of Nucleic Acid Nanoparticles (NANPs) in Human Primary Blood Cells. <i>Molecules</i> , 2019, 24, 1094.	3.8	44
29	Nanoparticle physicochemical properties determine the activation of intracellular complement. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019, 17, 266-275.	3.3	22
30	<p>Acute physiological changes caused by complement activators and amphotericin B-containing liposomes in mice<p>. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 1563-1573.	6.7	18
31	Detection of Endotoxin in Nano-formulations Using Limulus Amoebocyte Lysate (LAL) Assays. <i>Journal of Visualized Experiments</i> , 2019, , .	0.3	6
32	Nucleic Acid Nanoparticles at a Crossroads of Vaccines and Immunotherapies. <i>Molecules</i> , 2019, 24, 4620.	3.8	23
33	RNAâ€DNA fibers and polygons with controlled immunorecognition activate RNAi, FRET and transcriptional regulation of NF-Î²B in human cells. <i>Nucleic Acids Research</i> , 2019, 47, 1350-1361.	14.5	64
34	Genotoxicity of amorphous silica nanoparticles: Status and prospects. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019, 16, 106-125.	3.3	59
35	Addressing barriers to effective cancer immunotherapy with nanotechnology: achievements, challenges, and roadmap to the next generation of nanoimmunotherapeutics. <i>Advanced Drug Delivery Reviews</i> , 2019, 141, 3-22.	13.7	44
36	Dynamic Behavior of RNA Nanoparticles Analyzed by AFM on a Mica/Air Interface. <i>Langmuir</i> , 2018, 34, 15099-15108.	3.5	35

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37	Immunological effects of iron oxide nanoparticles and iron-based complex drug formulations: Therapeutic benefits, toxicity, mechanistic insights, and translational considerations. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2018, 14, 977-990.	3.3	105
38	Feraheme® suppresses immune function of human T lymphocytes through mitochondrial damage and mitoROS production. <i>Toxicology and Applied Pharmacology</i> , 2018, 350, 52-63.	2.8	39
39	In Vitro Assessment of Nanoparticle Effects on Blood Coagulation. <i>Methods in Molecular Biology</i> , 2018, 1682, 103-124.	0.9	15
40	Analysis of Complement Activation by Nanoparticles. <i>Methods in Molecular Biology</i> , 2018, 1682, 149-160.	0.9	27
41	Methods for Analysis of Nanoparticle Immunosuppressive Properties In Vitro and In Vivo. <i>Methods in Molecular Biology</i> , 2018, 1682, 161-172.	0.9	7
42	Analysis of Pro-inflammatory Cytokine and Type II Interferon Induction by Nanoparticles. <i>Methods in Molecular Biology</i> , 2018, 1682, 173-187.	0.9	18
43	Analysis of Nanoparticle-Adjuvant Properties In Vivo. <i>Methods in Molecular Biology</i> , 2018, 1682, 189-195.	0.9	6
44	In Vitro and In Vivo Methods for Analysis of Nanoparticle Potential to Induce Delayed-Type Hypersensitivity Reactions. <i>Methods in Molecular Biology</i> , 2018, 1682, 197-210.	0.9	12
45	Detection of Bacterial Contamination in Nanoparticle Formulations by Agar Plate Test. <i>Methods in Molecular Biology</i> , 2018, 1682, 19-22.	0.9	2
46	Considerations and Some Practical Solutions to Overcome Nanoparticle Interference with LAL Assays and to Avoid Endotoxin Contamination in Nanoformulations. <i>Methods in Molecular Biology</i> , 2018, 1682, 23-33.	0.9	10
47	In Vitro Analysis of Nanoparticle Effects on the Zymosan Uptake by Phagocytic Cells. <i>Methods in Molecular Biology</i> , 2018, 1682, 125-133.	0.9	2
48	Updated Method for In Vitro Analysis of Nanoparticle Hemolytic Properties. <i>Methods in Molecular Biology</i> , 2018, 1682, 91-102.	0.9	36
49	Animal models for analysis of immunological responses to nanomaterials: Challenges and considerations. <i>Advanced Drug Delivery Reviews</i> , 2018, 136-137, 82-96.	13.7	43
50	Chemical Modification of CRISPR gRNAs Eliminate type I Interferon Responses in Human Peripheral Blood Mononuclear Cells. <i>Journal of Cytokine Biology</i> , 2018, 03, .	1.5	24
51	RNA Fibers as Optimized Nanoscaffolds for siRNA Coordination and Reduced Immunological Recognition. <i>Advanced Functional Materials</i> , 2018, 28, 1805959.	14.9	57
52	Roadmap and strategy for overcoming infusion reactions to nanomedicines. <i>Nature Nanotechnology</i> , 2018, 13, 1100-1108.	31.5	130
53	Anticoagulants Influence the Performance of In Vitro Assays Intended for Characterization of Nanotechnology-Based Formulations. <i>Molecules</i> , 2018, 23, 12.	3.8	34
54	Understanding the Role of Anti-PEG Antibodies in the Complement Activation by Doxil in Vitro. <i>Molecules</i> , 2018, 23, 1700.	3.8	83

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55	Structure and Composition Define Immunorecognition of Nucleic Acid Nanoparticles. Nano Letters, 2018, 18, 4309-4321.	9.1	100
56	The potential utility of iron oxide nanoparticles for the treatment of skin inflammation in a mouse model of psoriasis. Precision Nanomedicine, 2018, 2, 249-255.	0.8	8
57	Plasma samples from mouse strains and humans demonstrate different susceptibilities to complement activation. Precision Nanomedicine, 2018, 1, 208-217.	0.8	2
58	Understanding Nanoparticle Immunotoxicity to Develop Safe Medical Devices. , 2017, , 63-80.		2
59	Programmable Nucleic Acid Based Polygons with Controlled Neuroimmunomodulatory Properties for Predictive QSAR Modeling. Small, 2017, 13, 1701255.	10.0	53
60	Ins and Outs in Environmental and Occupational Safety Studies of Asthma and Engineered Nanomaterials. ACS Nano, 2017, 11, 7565-7571.	14.6	14
61	Functionally-interdependent shape-switching nanoparticles with controllable properties. Nucleic Acids Research, 2017, 45, gkx008.	14.5	71
62	Dendrimers Effects on the Immune System: Insights into Toxicity and Therapeutic Utility. Current Pharmaceutical Design, 2017, 23, 3134-3141.	1.9	34
63	Nanoparticle Effects on Human Platelets in Vitro: A Comparison between PAMAM and Triazine Dendrimers. Molecules, 2016, 21, 428.	3.8	42
64	Interaction Between Nanoparticles and Plasma Proteins: Effects on Nanoparticle Biodistribution and Toxicity. , 2016, , 505-520.		7
65	Immunological Properties of Engineered Nanomaterials: An Introduction. Frontiers in Nanobiomedical Research, 2016, , 1-24.	0.1	1
66	Endotoxin and Engineered Nanomaterials. Frontiers in Nanobiomedical Research, 2016, , 143-186.	0.1	5
67	<i>In Vitro</i> Assays for Monitoring Nanoparticle Interaction with Components of the Immune System. Frontiers in Nanobiomedical Research, 2016, , 223-280.	0.1	2
68	Understanding the Correlation between in vitro and in vivo Immunotoxicity Tests for Engineered Nanomaterials. Frontiers in Nanobiomedical Research, 2016, , 317-344.	0.1	1
69	Protein Binding Case Study 1: Understanding Relationship between Protein Corona and Nanoparticle Toxicity. Frontiers in Nanobiomedical Research, 2016, , 23-52.	0.1	0
70	Nanoparticles and the Blood Coagulation System. Frontiers in Nanobiomedical Research, 2016, , 261-302.	0.1	15
71	Self-assembled DNA/RNA nanoparticles as a new generation of therapeutic nucleic acids: immunological compatibility and other translational considerations. DNA and RNA Nanotechnology, 2016, 3, .	0.7	12
72	A high capacity polymeric micelle of paclitaxel: Implication of high dose drug therapy to safety and <i>in vivo</i> anti-cancer activity. Biomaterials, 2016, 101, 296-309.	11.4	151

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73	Understanding the immunogenicity and antigenicity of nanomaterials: Past, present and future. <i>Toxicology and Applied Pharmacology</i> , 2016, 299, 70-77.	2.8	152
74	Current understanding of interactions between nanoparticles and the immune system. <i>Toxicology and Applied Pharmacology</i> , 2016, 299, 78-89.	2.8	236
75	Strategy for selecting nanotechnology carriers to overcome immunological and hematological toxicities challenging clinical translation of nucleic acid-based therapeutics. <i>Expert Opinion on Drug Delivery</i> , 2015, 12, 1163-1175.	5.0	39
76	Immunological and hematological toxicities challenging clinical translation of nucleic acid-based therapeutics. <i>Expert Opinion on Biological Therapy</i> , 2015, 15, 1023-1048.	3.1	38
77	Induction of oxidative stress by Taxol® vehicle Cremophor-EL triggers production of interleukin-8 by peripheral blood mononuclear cells through the mechanism not requiring de novo synthesis of mRNA. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2015, 11, 1925-1938.	3.3	22
78	Pre-clinical immunotoxicity studies of nanotechnology-formulated drugs: Challenges, considerations and strategy. <i>Journal of Controlled Release</i> , 2015, 220, 571-583.	9.9	147
79	Triggering of RNA Interference with RNA-Targeting RNA, RNA-Targeting DNA, and DNA-Targeting RNA Nanoparticles. <i>ACS Nano</i> , 2015, 9, 251-259.	14.6	100
80	Inhibition of phosphoinositol 3 kinase contributes to nanoparticle-mediated exaggeration of endotoxin-induced leukocyte procoagulant activity. <i>Nanomedicine</i> , 2014, 9, 1311-1326.	3.3	20
81	Protein corona composition does not accurately predict hemocompatibility of colloidal gold nanoparticles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2014, 10, 1453-1463.	3.3	134
82	Choice of method for endotoxin detection depends on nanoformulation. <i>Nanomedicine</i> , 2014, 9, 1847-1856.	3.3	46
83	Identification and Avoidance of Potential Artifacts and Misinterpretations in Nanomaterial Ecotoxicity Measurements. <i>Environmental Science & Technology</i> , 2014, 48, 4226-4246.	10.0	209
84	Nanoparticles for cancer imaging: The good, the bad, and the promise. <i>Nano Today</i> , 2013, 8, 454-460.	11.9	140
85	Understanding the correlation between in vitro and in vivo immunotoxicity tests for nanomedicines. <i>Journal of Controlled Release</i> , 2013, 172, 456-466.	9.9	235
86	Immunological Properties of Engineered Nanomaterials: An Introduction. <i>Frontiers in Nanobiomedical Research</i> , 2013, , 1-23.	0.1	13
87	Endotoxin and Engineered Nanomaterials. <i>Frontiers in Nanobiomedical Research</i> , 2013, , 77-115.	0.1	7
88	In Vitro Assays for Monitoring Nanoparticle Interaction with Components of the Immune System. <i>Frontiers in Nanobiomedical Research</i> , 2013, , 581-638.	0.1	4
89	Nanoparticles and the blood coagulation system. Part II: safety concerns. <i>Nanomedicine</i> , 2013, 8, 969-981.	3.3	167
90	Nanoparticles and the blood coagulation system. Part I: benefits of nanotechnology. <i>Nanomedicine</i> , 2013, 8, 773-784.	3.3	90

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91	Common pitfalls in nanotechnology: lessons learned from NCI's Nanotechnology Characterization Laboratory. <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 66-73.	1.3	213
92	A Novel Gadolinium-Based Trimetasphere Metallofullerene for Application as a Magnetic Resonance Imaging Contrast Agent. <i>Investigative Radiology</i> , 2013, 48, 745-754.	6.2	17
93	Dendrimer-induced leukocyte procoagulant activity depends on particle size and surface charge. <i>Nanomedicine</i> , 2012, 7, 245-256.	3.3	59
94	Nanoparticle Size and Surface Charge Determine Effects of PAMAM Dendrimers on Human Platelets <i>in Vitro</i> . <i>Molecular Pharmaceutics</i> , 2012, 9, 382-393.	4.6	191
95	Method for Analysis of Nanoparticle Hemolytic Properties <i>In Vitro</i> . <i>Methods in Molecular Biology</i> , 2011, 697, 215-224.	0.9	40
96	Macrophage scavenger receptor A mediates the uptake of gold colloids by macrophages <i>in vitro</i> . <i>Nanomedicine</i> , 2011, 6, 1175-1188.	3.3	88
97	Method for <i>In Vitro</i> Analysis of Nanoparticle Thrombogenic Properties. <i>Methods in Molecular Biology</i> , 2011, 697, 225-235.	0.9	32
98	Design and self-assembly of siRNA-functionalized RNA nanoparticles for use in automated nanomedicine. <i>Nature Protocols</i> , 2011, 6, 2022-2034.	12.0	177
99	Detection and Quantitative Evaluation of Endotoxin Contamination in Nanoparticle Formulations by LAL-Based Assays. <i>Methods in Molecular Biology</i> , 2011, 697, 121-130.	0.9	47
100	Qualitative Analysis of Total Complement Activation by Nanoparticles. <i>Methods in Molecular Biology</i> , 2011, 697, 237-245.	0.9	30
101	<i>In Vitro</i> Analysis of Nanoparticle Uptake by Macrophages Using Chemiluminescence. <i>Methods in Molecular Biology</i> , 2011, 697, 255-261.	0.9	10
102	Sterilization of Silver Nanoparticles Using Standard Gamma Irradiation Procedure Affects Particle Integrity and Biocompatibility. <i>Journal of Nanomedicine & Nanotechnology</i> , 2011, S5, 001.	1.1	35
103	Radioactive gold nanoparticles in cancer therapy: therapeutic efficacy studies of GA-198AuNP nanoconstruct in prostate tumor-bearing mice. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2010, 6, 201-209.	3.3	198
104	Ambiguities in applying traditional <i>Limulus</i> Amebocyte Lysate tests to quantify endotoxin in nanoparticle formulations. <i>Nanomedicine</i> , 2010, 5, 555-562.	3.3	88
105	Minireview: Nanoparticles and the Immune System. <i>Endocrinology</i> , 2010, 151, 458-465.	2.8	769
106	Biological Assessment of Triazine Dendrimer: Toxicological Profiles, Solution Behavior, Biodistribution, Drug Release and Efficacy in a PEGylated, Paclitaxel Construct. <i>Molecular Pharmaceutics</i> , 2010, 7, 993-1006.	4.6	50
107	Quantitative characterization of quantum dot-labeled lambda phage for <i>Escherichia coli</i> detection. <i>Biotechnology and Bioengineering</i> , 2009, 104, 1059-1067.	3.3	44
108	Evaluation of nanoparticle immunotoxicity. <i>Nature Nanotechnology</i> , 2009, 4, 411-414.	31.5	345

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109	Interaction of colloidal gold nanoparticles with human blood: effects on particle size and analysis of plasma protein binding profiles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2009, 5, 106-117.	3.3	592
110	Nanoparticle interaction with plasma proteins as it relates to particle biodistribution, biocompatibility and therapeutic efficacy. <i>Advanced Drug Delivery Reviews</i> , 2009, 61, 428-437.	13.7	1,566
111	Preclinical Studies To Understand Nanoparticle Interaction with the Immune System and Its Potential Effects on Nanoparticle Biodistribution. <i>Molecular Pharmaceutics</i> , 2008, 5, 487-495.	4.6	870
112	Method for Analysis of Nanoparticle Hemolytic Properties in Vitro. <i>Nano Letters</i> , 2008, 8, 2180-2187.	9.1	557
113	Immunological properties of engineered nanomaterials. <i>Nature Nanotechnology</i> , 2007, 2, 469-478.	31.5	1,560
114	Characterization of nanoparticles for therapeutics. <i>Nanomedicine</i> , 2007, 2, 789-803.	3.3	323
115	Inflammation and Cancer: When NF- κ B Amalgamates the Perilous Partnership. <i>Current Cancer Drug Targets</i> , 2005, 5, 325-344.	1.6	90
116	A novel cell-based system for the rapid quantitative evaluation of (anti)-inflammatory potential of test substances. <i>Journal of Immunological Methods</i> , 2003, 281, 51-63.	1.4	6
117	Induction of In Vitro Reprogramming by Toll-Like Receptor (TLR)2 and TLR4 Agonists in Murine Macrophages: Effects of TLR "Homotolerance" Versus "Heterotolerance" on NF- κ B Signaling Pathway Components. <i>Journal of Immunology</i> , 2003, 170, 508-519.	0.8	291
118	Toll receptors, CD14, and macrophage activation and deactivation by LPS. <i>Microbes and Infection</i> , 2002, 4, 903-914.	1.9	485