

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	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
2	Immunological properties of engineered nanomaterials. <i>Nature Nanotechnology</i> , 2007, 2, 469-478.	31.5	1,560
3	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
4	Minireview: Nanoparticles and the Immune System. <i>Endocrinology</i> , 2010, 151, 458-465.	2.8	769
5	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
6	Method for Analysis of Nanoparticle Hemolytic Properties in Vitro. <i>Nano Letters</i> , 2008, 8, 2180-2187.	9.1	557
7	Toll receptors, CD14, and macrophage activation and deactivation by LPS. <i>Microbes and Infection</i> , 2002, 4, 903-914.	1.9	485
8	Evaluation of nanoparticle immunotoxicity. <i>Nature Nanotechnology</i> , 2009, 4, 411-414.	31.5	345
9	Characterization of nanoparticles for therapeutics. <i>Nanomedicine</i> , 2007, 2, 789-803.	3.3	323
10	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
11	Current understanding of interactions between nanoparticles and the immune system. <i>Toxicology and Applied Pharmacology</i> , 2016, 299, 78-89.	2.8	236
12	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
13	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
14	Identification and Avoidance of Potential Artifacts and Misinterpretations in Nanomaterial Ecotoxicity Measurements. <i>Environmental Science & Technology</i> , 2014, 48, 4226-4246.	10.0	209
15	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
16	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
17	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
18	Nanoparticles and the blood coagulation system. Part II: safety concerns. <i>Nanomedicine</i> , 2013, 8, 969-981.	3.3	167

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19	To PEGylate or not to PEGylate: Immunological properties of nanomedicine's most popular component, polyethylene glycol and its alternatives. <i>Advanced Drug Delivery Reviews</i> , 2022, 180, 114079.	13.7	163
20	Understanding the immunogenicity and antigenicity of nanomaterials: Past, present and future. <i>Toxicology and Applied Pharmacology</i> , 2016, 299, 70-77.	2.8	152
21	A high capacity polymeric micelle of paclitaxel: Implication of high dose drug therapy to safety and in vivo anti-cancer activity. <i>Biomaterials</i> , 2016, 101, 296-309.	11.4	151
22	On the issue of transparency and reproducibility in nanomedicine. <i>Nature Nanotechnology</i> , 2019, 14, 629-635.	31.5	149
23	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
24	Nanoparticles for cancer imaging: The good, the bad, and the promise. <i>Nano Today</i> , 2013, 8, 454-460.	11.9	140
25	Subchronic and chronic toxicity evaluation of inorganic nanoparticles for delivery applications. <i>Advanced Drug Delivery Reviews</i> , 2019, 144, 112-132.	13.7	140
26	Protein corona composition does not accurately predict hematocompatibility of colloidal gold nanoparticles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2014, 10, 1453-1463.	3.3	134
27	Roadmap and strategy for overcoming infusion reactions to nanomedicines. <i>Nature Nanotechnology</i> , 2018, 13, 1100-1108.	31.5	130
28	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
29	Triggering of RNA Interference with RNA-DNA, RNA-DNA, and DNA-RNA Nanoparticles. <i>ACS Nano</i> , 2015, 9, 251-259.	14.6	100
30	Structure and Composition Define Immunorecognition of Nucleic Acid Nanoparticles. <i>Nano Letters</i> , 2018, 18, 4309-4321.	9.1	100
31	Inflammation and Cancer: When NF- κ B Amalgamates the Perilous Partnership. <i>Current Cancer Drug Targets</i> , 2005, 5, 325-344.	1.6	90
32	Nanoparticles and the blood coagulation system. Part I: benefits of nanotechnology. <i>Nanomedicine</i> , 2013, 8, 773-784.	3.3	90
33	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
34	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
35	Understanding the Role of Anti-PEG Antibodies in the Complement Activation by Doxil <i>In Vitro</i> . <i>Molecules</i> , 2018, 23, 1700.	3.8	83
36	Applying lessons learned from nanomedicines to understand rare hypersensitivity reactions to mRNA-based SARS-CoV-2 vaccines. <i>Nature Nanotechnology</i> , 2022, 17, 337-346.	31.5	74

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37	Functionally-interdependent shape-switching nanoparticles with controllable properties. <i>Nucleic Acids Research</i> , 2017, 45, gkx008.	14.5	71
38	Opportunities, Barriers, and a Strategy for Overcoming Translational Challenges to Therapeutic Nucleic Acid Nanotechnology. <i>ACS Nano</i> , 2020, 14, 9221-9227.	14.6	67
39	RNA-DNA fibers and polygons with controlled immunorecognition activate RNAi, FRET and transcriptional regulation of NF- κ B in human cells. <i>Nucleic Acids Research</i> , 2019, 47, 1350-1361.	14.5	64
40	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
41	Dendrimer-induced leukocyte procoagulant activity depends on particle size and surface charge. <i>Nanomedicine</i> , 2012, 7, 245-256.	3.3	59
42	Genotoxicity of amorphous silica nanoparticles: Status and prospects. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019, 16, 106-125.	3.3	59
43	RNA Fibers as Optimized Nanoscaffolds for siRNA Coordination and Reduced Immunological Recognition. <i>Advanced Functional Materials</i> , 2018, 28, 1805959.	14.9	57
44	Programmable Nucleic Acid Based Polygons with Controlled Neuroimmunomodulatory Properties for Predictive QSAR Modeling. <i>Small</i> , 2017, 13, 1701255.	10.0	53
45	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
46	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
47	Choice of method for endotoxin detection depends on nanoformulation. <i>Nanomedicine</i> , 2014, 9, 1847-1856.	3.3	46
48	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
49	Toll-Like Receptor-Mediated Recognition of Nucleic Acid Nanoparticles (NANPs) in Human Primary Blood Cells. <i>Molecules</i> , 2019, 24, 1094.	3.8	44
50	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
51	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
52	Nanoparticle Effects on Human Platelets in Vitro: A Comparison between PAMAM and Triazine Dendrimers. <i>Molecules</i> , 2016, 21, 428.	3.8	42
53	Method for Analysis of Nanoparticle Hemolytic Properties In Vitro. <i>Methods in Molecular Biology</i> , 2011, 697, 215-224.	0.9	40
54	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

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55	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
56	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
57	Updated Method for In Vitro Analysis of Nanoparticle Hemolytic Properties. <i>Methods in Molecular Biology</i> , 2018, 1682, 91-102.	0.9	36
58	Use of human peripheral blood mononuclear cells to define immunological properties of nucleic acid nanoparticles. <i>Nature Protocols</i> , 2020, 15, 3678-3698.	12.0	36
59	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
60	Dynamic Behavior of RNA Nanoparticles Analyzed by AFM on a Mica/Air Interface. <i>Langmuir</i> , 2018, 34, 15099-15108.	3.5	35
61	Anticoagulants Influence the Performance of In Vitro Assays Intended for Characterization of Nanotechnology-Based Formulations. <i>Molecules</i> , 2018, 23, 12.	3.8	34
62	Dendrimers Effects on the Immune System: Insights into Toxicity and Therapeutic Utility. <i>Current Pharmaceutical Design</i> , 2017, 23, 3134-3141.	1.9	34
63	Method for In Vitro Analysis of Nanoparticle Thrombogenic Properties. <i>Methods in Molecular Biology</i> , 2011, 697, 225-235.	0.9	32
64	Bridging communities in the field of nanomedicine. <i>Regulatory Toxicology and Pharmacology</i> , 2019, 106, 187-196.	2.7	32
65	Opportunities and challenges for the clinical translation of structured DNA assemblies as gene therapeutic delivery and vaccine vectors. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2021, 13, e1657.	6.1	31
66	Critical review of nucleic acid nanotechnology to identify gaps and inform a strategy for accelerated clinical translation. <i>Advanced Drug Delivery Reviews</i> , 2022, 181, 114081.	13.7	31
67	Qualitative Analysis of Total Complement Activation by Nanoparticles. <i>Methods in Molecular Biology</i> , 2011, 697, 237-245.	0.9	30
68	Analysis of Complement Activation by Nanoparticles. <i>Methods in Molecular Biology</i> , 2018, 1682, 149-160.	0.9	27
69	Induction of Cytokines by Nucleic Acid Nanoparticles (NANPs) Depends on the Type of Delivery Carrier. <i>Molecules</i> , 2021, 26, 652.	3.8	26
70	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
71	Nucleic Acid Nanoparticles at a Crossroads of Vaccines and Immunotherapies. <i>Molecules</i> , 2019, 24, 4620.	3.8	23
72	Challenges in the development of nanoparticle-based imaging agents: Characterization and biology. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2021, 13, e1665.	6.1	23

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73	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
74	Nanoparticle physicochemical properties determine the activation of intracellular complement. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019, 17, 266-275.	3.3	22
75	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
76	The International Society of RNA Nanotechnology and Nanomedicine (ISRNN): The Present and Future of the Burgeoning Field. <i>ACS Nano</i> , 2021, 15, 16957-16973.	14.6	19
77	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
78	<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
79	A Novel Gadolinium-Based Trimetaspere Metallofullerene for Application as a Magnetic Resonance Imaging Contrast Agent. <i>Investigative Radiology</i> , 2013, 48, 745-754.	6.2	17
80	Nanoparticles and the Blood Coagulation System. <i>Frontiers in Nanobiomedical Research</i> , 2016, , 261-302.	0.1	15
81	In Vitro Assessment of Nanoparticle Effects on Blood Coagulation. <i>Methods in Molecular Biology</i> , 2018, 1682, 103-124.	0.9	15
82	Mini-Factor H Modulates Complement-Dependent IL-6 and IL-10 Release in an Immune Cell Culture (PBMC) Model: Potential Benefits Against Cytokine Storm. <i>Frontiers in Immunology</i> , 2021, 12, 642860.	4.8	15
83	The Recognition of and Reactions to Nucleic Acid Nanoparticles by Human Immune Cells. <i>Molecules</i> , 2021, 26, 4231.	3.8	15
84	Ins and Outs in Environmental and Occupational Safety Studies of Asthma and Engineered Nanomaterials. <i>ACS Nano</i> , 2017, 11, 7565-7571.	14.6	14
85	Immunological Properties of Engineered Nanomaterials: An Introduction. <i>Frontiers in Nanobiomedical Research</i> , 2013, , 1-23.	0.1	13
86	Detection of Beta-Glucan Contamination in Nanotechnology-Based Formulations. <i>Molecules</i> , 2020, 25, 3367.	3.8	13
87	Anhydrous Nucleic Acid Nanoparticles for Storage and Handling at Broad Range of Temperatures. <i>Small</i> , 2022, 18, e2104814.	10.0	13
88	Self-assembled DNA/RNA nanoparticles as a new generation of therapeutic nucleic acids: immunological compatibility and other translational considerations. <i>DNA and RNA Nanotechnology</i> , 2016, 3, .	0.7	12
89	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
90	2021: an immunotherapy odyssey and the rise of nucleic acid nanotechnology. <i>Nanomedicine</i> , 2021, 16, 1635-1640.	3.3	12

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91	In Vitro Analysis of Nanoparticle Uptake by Macrophages Using Chemiluminescence. <i>Methods in Molecular Biology</i> , 2011, 697, 255-261.	0.9	10
92	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
93	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
94	Immunophenotyping: Analytical approaches and role in preclinical development of nanomedicines. <i>Advanced Drug Delivery Reviews</i> , 2022, 185, 114281.	13.7	9
95	Locking and Unlocking Thrombin Function Using Immunoquiescent Nucleic Acid Nanoparticles with Regulated Retention <i>In Vivo</i> . <i>Nano Letters</i> , 2022, 22, 5961-5972.	9.1	9
96	The potential utility of iron oxide nanoparticles for the treatment of skin inflammation in a mouse model of psoriasis. <i>Precision Nanomedicine</i> , 2018, 2, 249-255.	0.8	8
97	Endotoxin and Engineered Nanomaterials. <i>Frontiers in Nanobiomedical Research</i> , 2013, , 77-115.	0.1	7
98	Interaction Between Nanoparticles and Plasma Proteins: Effects on Nanoparticle Biodistribution and Toxicity. , 2016, , 505-520.		7
99	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
100	Innate Immunity Modulating Impurities and the Immunotoxicity of Nanobiotechnology-Based Drug Products. <i>Molecules</i> , 2021, 26, 7308.	3.8	7
101	An In Vitro Assessment of Immunostimulatory Responses to Ten Model Innate Immune Response Modulating Impurities (IIRMI) and Peptide Drug Product, Teriparatide. <i>Molecules</i> , 2021, 26, 7461.	3.8	7
102	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
103	Analysis of Nanoparticle-Adjuvant Properties In Vivo. <i>Methods in Molecular Biology</i> , 2018, 1682, 189-195.	0.9	6
104	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
105	Detection of Endotoxin in Nano-formulations Using Limulus Amoebocyte Lysate (LAL) Assays. <i>Journal of Visualized Experiments</i> , 2019, , .	0.3	6
106	Endotoxin and Engineered Nanomaterials. <i>Frontiers in Nanobiomedical Research</i> , 2016, , 143-186.	0.1	5
107	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
108	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

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109	<i>In Vitro</i> Assays for Monitoring Nanoparticle Interaction with Components of the Immune System. <i>Frontiers in Nanobiomedical Research</i> , 2016, , 223-280.	0.1	2
110	Understanding Nanoparticle Immunotoxicity to Develop Safe Medical Devices. , 2017, , 63-80.		2
111	Detection of Bacterial Contamination in Nanoparticle Formulations by Agar Plate Test. <i>Methods in Molecular Biology</i> , 2018, 1682, 19-22.	0.9	2
112	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
113	Plasma samples from mouse strains and humans demonstrate different susceptibilities to complement activation. <i>Precision Nanomedicine</i> , 2018, 1, 208-217.	0.8	2
114	Immunological Properties of Engineered Nanomaterials: An Introduction. <i>Frontiers in Nanobiomedical Research</i> , 2016, , 1-24.	0.1	1
115	Understanding the Correlation between in vitro and in vivo Immunotoxicity Tests for Engineered Nanomaterials. <i>Frontiers in Nanobiomedical Research</i> , 2016, , 317-344.	0.1	1
116	Understanding Endotoxin and β -Glucan Contamination in Nanotechnology-Based Drug Products. , 2019, , 481-496.		1
117	Protein Binding Case Study 1: Understanding Relationship between Protein Corona and Nanoparticle Toxicity. <i>Frontiers in Nanobiomedical Research</i> , 2016, , 23-52.	0.1	0
118	Editorial to "Journey into the immunological properties of engineered nanomaterials: There and back again". <i>Advanced Drug Delivery Reviews</i> , 2022, 181, 114100.	13.7	0