Marina A Dobrovolskaia

List of Publications by Year in Descending Order

115 papers	10,507 citations	41 h-index	102 g-index
124 ext. papers	11,881 ext. citations	8.4 avg, IF	6.7 L-index

#	Paper	IF	Citations
115	Anhydrous Nucleic Acid Nanoparticles for Storage and Handling at Broad Range of Temperatures.. *Small*, **2022**, e2104814	11	2
114	Applying lessons learned from nanomedicines to understand rare hypersensitivity reactions to mRNA-based SARS-CoV-2 vaccines.. *Nature Nanotechnology*, **2022**,	28.7	4
113	Immunophenotyping: analytical approaches and role in preclinical development of nanomedicines.. *Advanced Drug Delivery Reviews*, **2022**, 114281	18.5	1
112	To PEGylate or not to PEGylate: Immunological properties of nanomedicine's most popular component, polyethylene glycol and its alternatives.. *Advanced Drug Delivery Reviews*, **2021**, 180, 114079	18.5	16
111	Innate Immunity Modulating Impurities and the Immunotoxicity of Nanobiotechnology-Based Drug Products. *Molecules*, **2021**, 26,	4.8	1
110	Critical review of nucleic acid nanotechnology to identify gaps and inform a strategy for accelerated clinical translation.. *Advanced Drug Delivery Reviews*, **2021**, 181, 114081	18.5	7
109	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	8.4	6
108	The Recognition of and Reactions to Nucleic Acid Nanoparticles by Human Immune Cells. *Molecules*, **2021**, 26,	4.8	3
107	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	9.2	12
106	Challenges in the development of nanoparticle-based imaging agents: Characterization and biology. *Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology*, **2021**, 13, e1665	9.2	13
105	Induction of Cytokines by Nucleic Acid Nanoparticles (NANPs) Depends on the Type of Delivery Carrier. *Molecules*, **2021**, 26,	4.8	11
104	PEGylated Liposomal Methyl Prednisolone Succinate does not Induce Infusion Reactions in Patients: A Correlation Between in Vitro Immunological and in Vivo Clinical Studies. *Molecules*, **2020** , 25,	4.8	3
103	One-year chronic toxicity evaluation of single dose intravenously administered silica nanoparticles in mice and their Ex vivo human hemocompatibility. *Journal of Controlled Release*, **2020**, 324, 471-481	11.7	29
102	Use of human peripheral blood mononuclear cells to define immunological properties of nucleic acid nanoparticles. *Nature Protocols*, **2020**, 15, 3678-3698	18.8	14
101	Detection of Beta-Glucan Contamination in Nanotechnology-Based Formulations. *Molecules*, **2020**, 25,	4.8	2
100	Application of a Scavenger Receptor A1-Targeted Polymeric Prodrug Platform for Lymphatic Drug Delivery in HIV. *Molecular Pharmaceutics*, **2020**, 17, 3794-3812	5.6	2
99	Bridging communities in the field of nanomedicine. *Regulatory Toxicology and Pharmacology*, **2019**, 106, 187-196	3.4	19

98	Interference of Metal Oxide Nanoparticles with Coagulation Cascade and Interaction with Blood Components. *Particle and Particle Systems Characterization*, **2019**, 36, 1800547	3.1	4
97	Toll-Like Receptor-Mediated Recognition of Nucleic Acid Nanoparticles (NANPs) in Human Primary Blood Cells. *Molecules*, **2019**, 24,	4.8	27
96	Nanoparticle physicochemical properties determine the activation of intracellular complement. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2019**, 17, 266-275	6	11
95	Subchronic and chronic toxicity evaluation of inorganic nanoparticles for delivery applications. *Advanced Drug Delivery Reviews*, **2019**, 144, 112-132	18.5	65
94	Understanding Endotoxin and Glucan Contamination in Nanotechnology-Based Drug Products **2019**, 481-496		
93	On the issue of transparency and reproducibility in nanomedicine. *Nature Nanotechnology*, **2019**, 14, 629-635	28.7	92
92	Acute physiological changes caused by complement activators and amphotericin B-containing liposomes in mice. *International Journal of Nanomedicine*, **2019**, 14, 1563-1573	7.3	14
91	Detection of Endotoxin in Nano-formulations Using Limulus Amoebocyte Lysate (LAL) Assays. *Journal of Visualized Experiments*, **2019**,	1.6	4
90	Nucleic Acid Nanoparticles at a Crossroads of Vaccines and Immunotherapies. *Molecules*, **2019**, 24,	4.8	13
89	RNA-DNA fibers and polygons with controlled immunorecognition activate RNAi, FRET and transcriptional regulation of NF-B in human cells. *Nucleic Acids Research*, **2019**, 47, 1350-1361	20.1	41
88	Genotoxicity of amorphous silica nanoparticles: Status and prospects. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2019**, 16, 106-125	6	40
87	Addressing barriers to effective cancer immunotherapy with nanotechnology: achievements, challenges, and roadmap to the next generation of nanoimmunotherapeutics. *Advanced Drug Delivery Reviews*, **2019**, 141, 3-22	18.5	26
86	Dynamic Behavior of RNA Nanoparticles Analyzed by AFM on a Mica/Air Interface. *Langmuir*, **2018**, 34, 15099-15108	4	21
85	Immunological effects of iron oxide nanoparticles and iron-based complex drug formulations: Therapeutic benefits, toxicity, mechanistic insights, and translational considerations. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2018**, 14, 977-990	6	66
84	Feraheme suppresses immune function of human T lymphocytes through mitochondrial damage and mitoROS production. *Toxicology and Applied Pharmacology*, **2018**, 350, 52-63	4.6	24
83	In Vitro Assessment of Nanoparticle Effects on Blood Coagulation. *Methods in Molecular Biology*, **2018**, 1682, 103-124	1.4	9
82	Analysis of Complement Activation by Nanoparticles. *Methods in Molecular Biology*, **2018**, 1682, 149-160	1.4	13
81	Methods for Analysis of Nanoparticle Immunosuppressive Properties In Vitro and In Vivo. *Methods in Molecular Biology*, **2018**, 1682, 161-172	1.4	6

80	Analysis of Pro-inflammatory Cytokine and Type II Interferon Induction by Nanoparticles. *Methods in Molecular Biology*, **2018**, 1682, 173-187	1.4	11
79	Analysis of Nanoparticle-Adjuvant Properties In Vivo. *Methods in Molecular Biology*, **2018**, 1682, 189-195	1.4	3
78	In Vitro and In Vivo Methods for Analysis of Nanoparticle Potential to Induce Delayed-Type Hypersensitivity Reactions. *Methods in Molecular Biology*, **2018**, 1682, 197-210	1.4	8
77	Detection of Bacterial Contamination in Nanoparticle Formulations by Agar Plate Test. *Methods in Molecular Biology*, **2018**, 1682, 19-22	1.4	1
76	Considerations and Some Practical Solutions to Overcome Nanoparticle Interference with LAL Assays and to Avoid Endotoxin Contamination in Nanoformulations. *Methods in Molecular Biology*, **2018**, 1682, 23-33	1.4	8
75	In Vitro Analysis of Nanoparticle Effects on the Zymosan Uptake by Phagocytic Cells. *Methods in Molecular Biology*, **2018**, 1682, 125-133	1.4	1
74	Updated Method for In Vitro Analysis of Nanoparticle Hemolytic Properties. *Methods in Molecular Biology*, **2018**, 1682, 91-102	1.4	19
73	Understanding the Role of Anti-PEG Antibodies in the Complement Activation by Doxil in Vitro. *Molecules*, **2018**, 23,	4.8	58
72	Structure and Composition Define Immunorecognition of Nucleic Acid Nanoparticles. *Nano Letters*, **2018**, 18, 4309-4321	11.5	64
71	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	1.2	2
70	Plasma samples from mouse strains and humans demonstrate different susceptibilities to complement activation. *Precision Nanomedicine*, **2018**, 1, 208-217	1.2	0
69	Animal models for analysis of immunological responses to nanomaterials: Challenges and considerations. *Advanced Drug Delivery Reviews*, **2018**, 136-137, 82-96	18.5	30
68	Chemical Modification of CRISPR Eliminate type I Interferon Responses in Human Peripheral Blood Mononuclear Cells **2018**, 3,		15
67	RNA Fibers as Optimized Nanoscaffolds for siRNA Coordination and Reduced Immunological Recognition. *Advanced Functional Materials*, **2018**, 28, 1805959	15.6	39
66	Roadmap and strategy for overcoming infusion reactions to nanomedicines. *Nature Nanotechnology*, **2018**, 13, 1100-1108	28.7	94
65	Understanding Nanoparticle Immunotoxicity to Develop Safe Medical Devices **2017**, 63-80		2
64	Functionally-interdependent shape-switching nanoparticles with controllable properties. *Nucleic Acids Research*, **2017**, 45, 2210-2220	20.1	57
63	Anticoagulants Influence the Performance of In Vitro Assays Intended for Characterization of Nanotechnology-Based Formulations. *Molecules*, **2017**, 23,	4.8	14

62	Programmable Nucleic Acid Based Polygons with Controlled Neuroimmunomodulatory Properties for Predictive QSAR Modeling. *Small*, **2017**, 13, 1701255	11	38
61	Ins and Outs in Environmental and Occupational Safety Studies of Asthma and Engineered Nanomaterials. *ACS Nano*, **2017**, 11, 7565-7571	16.7	9
60	Dendrimers Effects on the Immune System: Insights into Toxicity and Therapeutic Utility. *Current Pharmaceutical Design*, **2017**, 23, 3134-3141	3.3	24
59	A high capacity polymeric micelle of paclitaxel: Implication of high dose drug therapy to safety and in vivo anti-cancer activity. *Biomaterials*, **2016**, 101, 296-309	15.6	115
58	Understanding the immunogenicity and antigenicity of nanomaterials: Past, present and future. *Toxicology and Applied Pharmacology*, **2016**, 299, 70-7	4.6	95
57	Current understanding of interactions between nanoparticles and the immune system. *Toxicology and Applied Pharmacology*, **2016**, 299, 78-89	4.6	173
56	Nanoparticle Effects on Human Platelets in Vitro: A Comparison between PAMAM and Triazine Dendrimers. *Molecules*, **2016**, 21, 428	4.8	30
55	Nanoparticle Toxicity: General Overview and Insights Into Immunological Compatibility **2016**, 425-442		1
54	Interaction Between Nanoparticles and Plasma Proteins: Effects on Nanoparticle Biodistribution and Toxicity **2016**, 505-520		6
53	Immunological Properties of Engineered Nanomaterials: An Introduction. *Frontiers in Nanobiomedical Research*, **2016**, 1-24		0
52	Endotoxin and Engineered Nanomaterials. *Frontiers in Nanobiomedical Research*, **2016**, 143-186		3
51	In Vitro Assays for Monitoring Nanoparticle Interaction with Components of the Immune System. *Frontiers in Nanobiomedical Research*, **2016**, 223-280		1
50	Understanding the Correlation between in vitro and in vivo Immunotoxicity Tests for Engineered Nanomaterials. *Frontiers in Nanobiomedical Research*, **2016**, 317-344		0
49	Protein Binding Case Study 1: Understanding Relationship between Protein Corona and Nanoparticle Toxicity. *Frontiers in Nanobiomedical Research*, **2016**, 23-52		
48	Nanoparticles and the Blood Coagulation System. *Frontiers in Nanobiomedical Research*, **2016**, 261-302		10
47	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,		10
46	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. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2015**, 11, 1925-38	6	17
45	Pre-clinical immunotoxicity studies of nanotechnology-formulated drugs: Challenges, considerations and strategy. *Journal of Controlled Release*, **2015**, 220, 571-83	11.7	120

44	Triggering of RNA interference with RNA-RNA, RNA-DNA, and DNA-RNA nanoparticles. *ACS Nano*, **2015**, 9, 251-9	16.7	85
43	Strategy for selecting nanotechnology carriers to overcome immunological and hematological toxicities challenging clinical translation of nucleic acid-based therapeutics. *Expert Opinion on Drug Delivery*, **2015**, 12, 1163-75	8	32
42	Immunological and hematological toxicities challenging clinical translation of nucleic acid-based therapeutics. *Expert Opinion on Biological Therapy*, **2015**, 15, 1023-48	5.4	29
41	Protein corona composition does not accurately predict hematocompatibility of colloidal gold nanoparticles. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2014**, 10, 1453-63	6	113
40	Choice of method for endotoxin detection depends on nanoformulation. *Nanomedicine*, **2014**, 9, 1847-56	5.6	41
39	Identification and avoidance of potential artifacts and misinterpretations in nanomaterial ecotoxicity measurements. *Environmental Science & Technology*, **2014**, 48, 4226-46	10.3	187
38	Inhibition of phosphoinositol 3 kinase contributes to nanoparticle-mediated exaggeration of endotoxin-induced leukocyte procoagulant activity. *Nanomedicine*, **2014**, 9, 1311-26	5.6	18
37	Nanoparticles for cancer imaging: The good, the bad, and the promise. *Nano Today*, **2013**, 8, 454-460	17.9	113
36	Understanding the correlation between in vitro and in vivo immunotoxicity tests for nanomedicines. *Journal of Controlled Release*, **2013**, 172, 456-66	11.7	177
35	Immunological Properties of Engineered Nanomaterials: An Introduction. *Frontiers in Nanobiomedical Research*, **2013**, 1-23		11
34	Endotoxin and Engineered Nanomaterials. *Frontiers in Nanobiomedical Research*, **2013**, 77-115		6
33	In Vitro Assays for Monitoring Nanoparticle Interaction with Components of the Immune System. *Frontiers in Nanobiomedical Research*, **2013**, 581-638		4
32	Nanoparticles and the blood coagulation system. Part II: safety concerns. *Nanomedicine*, **2013**, 8, 969-81	5.6	132
31	Nanoparticles and the blood coagulation system. Part I: benefits of nanotechnology. *Nanomedicine*, **2013**, 8, 773-84	5.6	77
30	Common pitfalls in nanotechnology: lessons learned from NCI's Nanotechnology Characterization Laboratory. *Integrative Biology (United Kingdom)*, **2013**, 5, 66-73	3.7	175
29	A novel gadolinium-based trimetasphere metallofullerene for application as a magnetic resonance imaging contrast agent. *Investigative Radiology*, **2013**, 48, 745-54	10.1	16
28	Dendrimer-induced leukocyte procoagulant activity depends on particle size and surface charge. *Nanomedicine*, **2012**, 7, 245-56	5.6	50
27	Nanoparticle size and surface charge determine effects of PAMAM dendrimers on human platelets in vitro. *Molecular Pharmaceutics*, **2012**, 9, 382-93	5.6	164

26	Method for analysis of nanoparticle hemolytic properties in vitro. *Methods in Molecular Biology*, **2011**, 697, 215-24	1.4	27
25	Macrophage scavenger receptor A mediates the uptake of gold colloids by macrophages in vitro. *Nanomedicine*, **2011**, 6, 1175-88	5.6	73
24	Method for in vitro analysis of nanoparticle thrombogenic properties. *Methods in Molecular Biology*, **2011**, 697, 225-35	1.4	24
23	Design and self-assembly of siRNA-functionalized RNA nanoparticles for use in automated nanomedicine. *Nature Protocols*, **2011**, 6, 2022-34	18.8	146
22	Detection and quantitative evaluation of endotoxin contamination in nanoparticle formulations by LAL-based assays. *Methods in Molecular Biology*, **2011**, 697, 121-30	1.4	43
21	Qualitative analysis of total complement activation by nanoparticles. *Methods in Molecular Biology*, **2011**, 697, 237-45	1.4	25
20	In vitro analysis of nanoparticle uptake by macrophages using chemiluminescence. *Methods in Molecular Biology*, **2011**, 697, 255-61	1.4	6
19	Sterilization of Silver Nanoparticles Using Standard Gamma Irradiation Procedure Affects Particle Integrity and Biocompatibility. *Journal of Nanomedicine & Nanotechnology*, **2011**, 2011, 001	1.9	25
18	Ambiguities in applying traditional Limulus amebocyte lysate tests to quantify endotoxin in nanoparticle formulations. *Nanomedicine*, **2010**, 5, 555-62	5.6	74
17	Nanoparticles and the immune system. *Endocrinology*, **2010**, 151, 458-65	4.8	619
16	Biological assessment of triazine dendrimer: toxicological profiles, solution behavior, biodistribution, drug release and efficacy in a PEGylated, paclitaxel construct. *Molecular Pharmaceutics*, **2010**, 7, 993-1006	5.6	45
15	Radioactive gold nanoparticles in cancer therapy: therapeutic efficacy studies of GA-198AuNP nanoconstruct in prostate tumor-bearing mice. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2010**, 6, 201-9	6	158
14	Quantitative characterization of quantum dot-labeled lambda phage for Escherichia coli detection. *Biotechnology and Bioengineering*, **2009**, 104, 1059-67	4.9	41
13	Evaluation of nanoparticle immunotoxicity. *Nature Nanotechnology*, **2009**, 4, 411-4	28.7	306
12	Interaction of colloidal gold nanoparticles with human blood: effects on particle size and analysis of plasma protein binding profiles. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2009**, 5, 106-17	6	532
11	Nanoparticle interaction with plasma proteins as it relates to particle biodistribution, biocompatibility and therapeutic efficacy. *Advanced Drug Delivery Reviews*, **2009**, 61, 428-37	18.5	1360
10	Method for analysis of nanoparticle hemolytic properties in vitro. *Nano Letters*, **2008**, 8, 2180-7	11.5	447
9	Preclinical studies to understand nanoparticle interaction with the immune system and its potential effects on nanoparticle biodistribution. *Molecular Pharmaceutics*, **2008**, 5, 487-95	5.6	744

8	Immunological properties of engineered nanomaterials. *Nature Nanotechnology*, **2007**, 2, 469-78	28.7	1395
7	Characterization of nanoparticles for therapeutics. *Nanomedicine*, **2007**, 2, 789-803	5.6	267
6	Preclinical Characterization of Engineered Nanoparticles Intended for Cancer Therapeutics **2006**, 105-137		13
5	Inflammation and cancer: when NF-kappaB amalgamates the perilous partnership. *Current Cancer Drug Targets*, **2005**, 5, 325-44	2.8	71
4	A novel cell-based system for the rapid quantitative evaluation of (anti)-inflammatory potential of test substances. *Journal of Immunological Methods*, **2003**, 281, 51-63	2.5	5
3	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-kappa B signaling pathway components. *Journal of Immunology*, **2003**, 170, 508-19	5.3	270
2	Toll receptors, CD14, and macrophage activation and deactivation by LPS. *Microbes and Infection*, **2002**, 4, 903-14	9.3	428
1	Handbook of Immunological Properties of Engineered Nanomaterials		3