Olivia M Merkel

List of Publications by Year
in descending order

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96 papers	4,942 citations	76326 40 h-index	95266 68 g-index
105 all docs	105 docs citations	105 times ranked	6085 citing authors

#	Article	IF	Citations
1	Influence of Polyethylene Glycol Chain Length on the Physicochemical and Biological Properties of Poly(ethylene imine)-graft-Poly(ethylene glycol) Block Copolymer/SiRNA Polyplexes. Bioconjugate Chemistry, 2006, 17, 1209-1218.	3.6	295
2	Applications of polymer micelles for imaging and drug delivery. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2015, 7, 691-707.	6.1	198
3	Intranasal drug delivery: opportunities and toxicologic challenges during drug development. Drug Delivery and Translational Research, 2022, 12, 735-757.	5.8	198
4	In vivo pharmacokinetics, tissue distribution and underlying mechanisms of various PEI(â€“PEG)/siRNA complexes. Toxicology and Applied Pharmacology, 2009, 236, 97-108.	2.8	178
5	Controlled pulmonary drug and gene delivery using polymeric nano-carriers. Journal of Controlled Release, 2012, 161, 214-224.	9.9	177
6	Stability of siRNA polyplexes from poly(ethylenimine) and poly(ethylenimine)-g-poly(ethylene glycol) under in vivo conditions: Effects on pharmacokinetics and biodistribution measured by Fluorescence Fluctuation Spectroscopy and Single Photon Emission Computed Tomography (SPECT) imaging. Journal of Controlled Release, 2009, 138, 148-159.	9.9	173
7	Nonviral siRNA Delivery to the Lung: Investigation of PEGâ˜PEI Polyplexes and Their In Vivo Performance. Molecular Pharmaceutics, 2009, 6, 1246-1260.	4.6	173
8	Fast degrading polyesters as siRNA nano-carriers for pulmonary gene therapy. Journal of Controlled Release, 2008, 132, 243-251.	9.9	131
9	In vitro and in vivo complement activation and related anaphylactic effects associated with polyethylenimine and polyethylenimine-graft-poly(ethylene glycol) block copolymers. Biomaterials, 2011, 32, 4936-4942.	11.4	115
10	siRNA Delivery to the lung: What's new?. Advanced Drug Delivery Reviews, 2014, 75, 112-128.	13.7	113
11	Lipids and polymers in pharmaceutical technology: Lifelong companions. International Journal of Pharmaceutics, 2019, 558, 128-142.	5.2	101
12	Immunogenicity of Cas9 Protein. Journal of Pharmaceutical Sciences, 2020, 109, 62-67.	3.3	99
13	In Vivo SPECT and Real-Time Gamma Camera Imaging of Biodistribution and Pharmacokinetics of siRNA Delivery Using an Optimized Radiolabeling and Purification Procedure. Bioconjugate Chemistry, 2009, 20, 174-182.	3.6	97
14	Targeted delivery of siRNA to activated T cells via transferrin-polyethylenimine (Tf-PEI) as a potential therapy of asthma. Journal of Controlled Release, 2016, 229, 120-129.	9.9	95
15	Comparative in vivo study of poly(ethylene imine)/siRNA complexes for pulmonary delivery in mice. Journal of Controlled Release, 2011, 151, 51-56.	9.9	93
16	Triazine Dendrimers as Nonviral Vectors for in Vitro and in Vivo RNAi: The Effects of Peripheral Groups and Core Structure on Biological Activity. Molecular Pharmaceutics, 2010, 7, 969-983.	4.6	92
17	Polymer-related off-target effects in non-viral siRNA delivery. Biomaterials, 2011, 32, 2388-2398.	11.4	90
18	Enhancing inÂvivo circulation and siRNA delivery with biodegradable polyethylenimine-graft-polycaprolactone-block-poly(ethylene glycol) copolymers. Biomaterials, 2012, 33, 6551-6558.	11.4	88

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19	PEGylation affects cytotoxicity and cell-compatibility of poly(ethylene imine) for lung application: Structureâ€“function relationships. Toxicology and Applied Pharmacology, 2010, 242, 146-154.	2.8	85
20	Efficient and Tumor Targeted siRNA Delivery by Polyethylenimine-graft-polycaprolactone-block-poly(ethylene glycol)-folate (PEIâ€“PCLâ€“PEGâ€“Fol). Molecular Pharmaceutics, 2016, 13, 134-143.	4.6	84
21	Targeting the Blind Spot of Polycationic Nanocarrier-Based siRNA Delivery. ACS Nano, 2012, 6, 9447-9454.	14.6	83
22	Nonviral Pulmonary Delivery of siRNA. Accounts of Chemical Research, 2012, 45, 961-970.	15.6	83
23	Amphiphilic Biodegradable PEG-PCL-PEI Triblock Copolymers for FRET-Capable in Vitro and in Vivo Delivery of siRNA and Quantum Dots. Molecular Pharmaceutics, 2014, 11, 1273-1281.	4.6	82
24	Triazine Dendrimers as Nonviral Gene Delivery Systems: Effects of Molecular Structure on Biological Activity. Bioconjugate Chemistry, 2009, 20, 1799-1806.	3.6	79
25	Computational Insights into the Interactions between DNA and siRNA with â€œRigidâ€•and â€œFlexibleâ€• Triazine Dendrimers. Biomacromolecules, 2010, 11, 721-730.	5.4	76
26	Folate Receptor Targeted Delivery of siRNA and Paclitaxel to Ovarian Cancer Cells via Folate Conjugated Triblock Copolymer to Overcome TLR4 Driven Chemotherapy Resistance. Biomacromolecules, 2016, 17, 76-87.	5.4	72
27	Low Molecular Weight pDMAEMA-block-pHEMA Block-Copolymers Synthesized via RAFT-Polymerization: Potential Non-Viral Gene Delivery Agents?. Polymers, 2011, 3, 693-718.	4.5	70
28	From Adsorption to Covalent Bonding: Apolipoprotein E Functionalization of Polymeric Nanoparticles for Drug Delivery Across the Bloodâ€“Brain Barrier. Advanced Therapeutics, 2021, 4, 2000092.	3.2	70
29	Biophysical characterization of hyper-branched polyethylenimine-graft-polycaprolactone-block-mono-methoxyl-poly(ethylene glycol) copolymers (hy-PEI-PCL-mPEG) for siRNA delivery. Journal of Controlled Release, 2011, 153, 262-268.	9.9	64
30	Pulmonary Gene Delivery Using Polymeric Nonviral Vectors. Bioconjugate Chemistry, 2012, 23, 3-20.	3.6	63
31	Mannose and Mannoseâ€6â€Phosphate Receptorâ€“Targeted Drug Delivery Systems and Their Application in Cancer Therapy. Advanced Healthcare Materials, 2018, 7, e1701398.	7.6	62
32	A new synthesis method and degradation of hyper-branched polyethylenimine grafted polycaprolactone block mono-methoxyl poly (ethylene glycol) copolymers (hy-PEI-g-PCL-b-mPEG) as potential DNA delivery vectors. Polymer, 2009, 50, 3895-3904.	3.8	56
33	Revisiting the value of competition assays in folate receptor-mediated drug delivery. Biomaterials, 2017, 138, 35-45.	11.4	56
34	Recent progress of polymeric nanogels for gene delivery. Current Opinion in Colloid and Interface Science, 2019, 39, 11-23.	7.4	53
35	Effect of the Route of Administration and PEGylation of Poly(amidoamine) Dendrimers on Their Systemic and Lung Cellular Biodistribution. Molecular Pharmaceutics, 2016, 13, 1866-1878.	4.6	52
36	In vitro and in vivo delivery of siRNA via VIPER polymer system to lung cells. Journal of Controlled Release, 2018, 276, 50-58.	9.9	52

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37	Molecular modeling and in vivo imaging can identify successful flexible triazine dendrimer-based siRNA delivery systems. Journal of Controlled Release, 2011, 153, 23-33.	9.9	47
38	Airâ"Liquid Interface Cultures of the Healthy and Diseased Human Respiratory Tract: Promises, Challenges, and Future Directions. Advanced NanoBiomed Research, 2021, 1, 2000111.	3.6	47
39	siRNA Therapeutics against Respiratory Viral Infectionsâ€"What Have We Learned for Potential COVIDâ€19 Therapies?. Advanced Healthcare Materials, 2021, 10, e2001650.	7.6	47
40	PEGylated poly(ethylene imine) copolymer-delivered siRNA inhibits HIV replication in vitro. Journal of Controlled Release, 2012, 157, 55-63.	9.9	45
41	Amphiphilic and biodegradable hy-PEI-g-PCL-b-PEG copolymers efficiently mediate transgene expression depending on their graft density. International Journal of Pharmaceutics, 2012, 427, 80-87.	5.2	42
42	Characterization of spray dried powders with nucleic acid-containing PEI nanoparticles. European Journal of Pharmaceutics and Biopharmaceutics, 2019, 143, 61-69.	4.3	41
43	Integrin Î±_{Î½}Î²₃ Targeted Gene Delivery Using RGD Peptidomimetic Conjugates with Copolymers of PEGylated Poly(ethylene imine). Bioconjugate Chemistry, 2009, 20, 1270-1280.	3.6	39
44	Polycationic triazine-based dendrimers: effect of peripheral groups on transfection efficiency. New Journal of Chemistry, 2009, 33, 1918.	2.8	39
45	Folate receptor targeted three-layered micelles and hydrogels for gene delivery to activated macrophages. Journal of Controlled Release, 2016, 244, 269-279.	9.9	39
46	Hybrid Lipid/Polymer Nanoparticles to Tackle the Cystic Fibrosis Mucus Barrier in siRNA Delivery to the Lungs: Does PEGylation Make the Difference?. ACS Applied Materials & Interfaces, 2022, 14, 7565-7578.	8.0	37
47	Semifluorinated alkanes as a liquid drug carrier system for topical ocular drug delivery. European Journal of Pharmaceutics and Biopharmaceutics, 2014, 88, 123-128.	4.3	36
48	Quo vadis polyplex?. Journal of Controlled Release, 2014, 190, 415-423.	9.9	36
49	Threeâ€Layered Biodegradable Micelles Prepared by Twoâ€Step Selfâ€Assembly of PLAâ€PEIâ€PLA and PLAâ€PEGâ€PLA Triblock Copolymers as Efficient Gene Delivery System. Macromolecular Bioscience, 2015, 15, 698-711.	4.1	34
50	Targeting genomic SARS-CoV-2 RNA with siRNAs allows efficient inhibition of viral replication and spread. Nucleic Acids Research, 2022, 50, 333-349.	14.5	34
51	Evaluation of Î²-Sitosterol Loaded PLGA and PEG-PLA Nanoparticles for Effective Treatment of Breast Cancer: Preparation, Physicochemical Characterization, and Antitumor Activity. Pharmaceutics, 2018, 10, 232.	4.5	33
52	Targeting KRAS Mutant Lung Cancer Cells with siRNA-Loaded Bovine Serum Albumin Nanoparticles. Pharmaceutical Research, 2019, 36, 133.	3.5	33
53	Tâ€cell targeted pulmonary <scp>siRNA</scp> delivery for the treatment of asthma. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2020, 12, e1634.	6.1	33
54	Targeted Delivery of siRNA to Transferrin Receptor Overexpressing Tumor Cells via Peptide Modified Polyethylenimine. Molecules, 2016, 21, 1334.	3.8	32

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55	Influence of Oligospermines Architecture on Their Suitability for siRNA Delivery. Biomacromolecules, 2014, 15, 1299-1310.	5.4	28
56	Pulmonary delivery of siRNA as a novel treatment for lung diseases. Therapeutic Delivery, 2019, 10, 203-206.	2.2	26
57	Biodistribution of the GATA-3-specific DNAzyme hgd40 after inhalative exposure in mice, rats and dogs. Toxicology and Applied Pharmacology, 2013, 272, 365-372.	2.8	25
58	Screening Nylon-3 Polymers, a New Class of Cationic Amphiphiles, for siRNA Delivery. Molecular Pharmaceutics, 2015, 12, 362-374.	4.6	25
59	Tackling breast cancer chemoresistance with nano-formulated siRNA. Gene Therapy, 2016, 23, 821-828.	4.5	25
60	CRISPR-cas gene-editing as plausible treatment of neuromuscular and nucleotide-repeat-expansion diseases: A systematic review. PLoS ONE, 2019, 14, e0212198.	2.5	25
61	Inhibition of SARS-CoV-2 replication in the lung with siRNA/VIPER polyplexes. Journal of Controlled Release, 2022, 345, 661-674.	9.9	23
62	Coming in and Finding Out: Blending Receptorâ€Targeted Delivery and Efficient Endosomal Escape in a Novel Bioâ€Responsive siRNA Delivery System for Gene Knockdown in Pulmonary T Cells. Advanced Therapeutics, 2019, 2, 1900047.	3.2	21
63	Nanoimprinting of topographical and 3D cell culture scaffolds. Nanomedicine, 2014, 9, 349-366.	3.3	20
64	The impact of microfluidic mixing of triblock micelleplexes on in vitro $/$ in vivo gene silencing and intracellular trafficking. Nanotechnology, 2017, 28, 224001.	2.6	20
65	Biodegradable Poly(ethylene carbonate) Nanoparticles as a Promising Drug Delivery System with â€œStealthâ€•Potential. Macromolecular Bioscience, 2011, 11, 897-904.	4.1	18
66	The Impact of Nylon-3 Copolymer Composition on the Efficiency of siRNA Delivery to Glioblastoma Cells. Nanomaterials, 2019, 9, 986.	4.1	18
67	Nose-to-brain delivery of biologics. Therapeutic Delivery, 2019, 10, 207-210.	2.2	18
68	Effects of Surface Charge, PEGylation and Functionalization with Dipalmitoylphosphatidyldiglycerol on Liposomeâ€“Cell Interactions and Local Drug Delivery to Solid Tumors via Thermosensitive Liposomes. International Journal of Nanomedicine, 2021, Volume 16, 4045-4061.	6.7	18
69	Characterization of Dopaminergic System in the Striatum of Young Adult Park2â^'/â^' Knockout Rats. Scientific Reports, 2018, 8, 1517.	3.3	17
70	Impact of Crystalline and Amorphous Matrices on Successful Spray Drying of siRNA Polyplexes for Inhalation of Nanoâ€inâ€Microparticles. Advanced Therapeutics, 2021, 4, 2100073.	3.2	17
71	Role of drug delivery technologies in the success of COVID-19 vaccines: a perspective. Drug Delivery and Translational Research, 2022, 12, 2581-2588.	5.8	17
72	Pulmonary Delivery of siRNA via Polymeric Vectors as Therapies of Asthma. Archiv Der Pharmazie, 2015, 348, 681-688.	4.1	15

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73	The advantages of pulmonary delivery of therapeutic siRNA. Therapeutic Delivery, 2015, 6, 407-409.	2.2	15
74	Dry powder inhalation of siRNA. Therapeutic Delivery, 2019, 10, 265-267.	2.2	11
75	Tracking and treating activated T cells. Journal of Drug Delivery Science and Technology, 2013, 23, 17-21.	3.0	10
76	Correlating quantitative tumor accumulation and gene knockdown using SPECT/CT and bioluminescence imaging within an orthotopic ovarian cancer model. Biomaterials, 2018, 178, 183-192.	11.4	10
77	Nanoparticle-Mediated Gene Silencing for Sensitization of Lung Cancer to Cisplatin Therapy. Molecules, 2020, 25, 1994.	3.8	9
78	Flow Cytometry-Based Cell Type-Specific Assessment of Target Regulation by Pulmonary siRNA Delivery. Methods in Molecular Biology, 2013, 948, 263-273.	0.9	7
79	Indium-Labeling of siRNA for Small Animal SPECT Imaging. Methods in Molecular Biology, 2016, 1372, 79-88.	0.9	7
80	Poly(ethylene carbonate) Nanoparticles as Carrier System for Chemotherapy Showing Prolonged in vivo Circulation and Antiâ€Tumor Efficacy. Macromolecular Bioscience, 2012, 12, 970-978.	4.1	6
81	Post-Transcriptional Regulation of the GASC1 Oncogene with Active Tumor-Targeted siRNA-Nanoparticles. Molecular Pharmaceutics, 2016, 13, 2605-2621.	4.6	5
82	Biodegradable Three-Layered Micelles and Injectable Hydrogels. Methods in Molecular Biology, 2016, 1445, 175-185.	0.9	5
83	Physicochemical and In Vitro Evaluation of Drug Delivery of an Antibacterial Synthetic Benzophenone in Biodegradable PLGA Nanoparticles. AAPS PharmSciTech, 2018, 19, 3561-3570.	3.3	5
84	Can pulmonary RNA delivery improve our pandemic preparedness?. Journal of Controlled Release, 2022, 345, 549-556.	9.9	5
85	Perfectly shaped siRNA delivery. Therapeutic Delivery, 2010, 1, 737-742.	2.2	4
86	Evaluating the Regulation of Cytokine Levels After siRNA Treatment in Antigen-Specific Target Cell Populations via Intracellular Staining. Methods in Molecular Biology, 2019, 1943, 323-331.	0.9	4
87	A Method for Targeted Nonviral siRNA Delivery in Cancer and Inflammatory Diseases. Methods in Molecular Biology, 2020, 2059, 155-166.	0.9	4
88	T Cell Transfection: Coming in and Finding Out: Blending Receptorâ€Targeted Delivery and Efficient Endosomal Escape in a Novel Bioâ€Responsive siRNA Delivery System for Gene Knockdown in Pulmonary T Cells (Adv. Therap. 7/2019). Advanced Therapeutics, 2019, 2, 1970015.	3.2	2
89	Microfluidic Assembly of siRNA-Loaded Micelleplexes for Tumor Targeting in anÂOrthotopic Model of Ovarian Cancer. Methods in Molecular Biology, 2019, 1974, 355-369.	0.9	2
90	A smart approach to enable preclinical studies in pharmaceutical industry: PLGA-based extended release formulation platform for subcutaneous applications. Drug Development and Industrial Pharmacy, 2020, 46, 635-645.	2.0	2

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91	Characterization of positively charged polyplexes by tunable resistive pulse sensing. European Journal of Pharmaceutics and Biopharmaceutics, 2021, 158, 359-364.	4.3	2
92	Advances and Challenges in the Delivery of Nucleic Acid Therapeutics (Volume 1). , 2015, , .		0
93	Flow Cytometry-Based Cell Type-Specific Assessment of Target Regulation by Pulmonary siRNA Delivery. Methods in Molecular Biology, 2019, 1943, 365-375.	0.9	0
94	Cover Image, Volume 12, Issue 5. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2020, 12, e1666.	6.1	0
95	Bridging the Gap between the Bench and the Clinic. , 2017, , 255-286.		0
96	Characterization Techniques for Studying the Properties of Nanocarriers for Systemic Delivery. Healthy Ageing and Longevity, 2020, , 57-86.	0.2	0