Kathryn A Whitehead

List of Publications by Year
in descending order

60 papers	8,888 citations	136740 32 h-index	168136 53 g-index
65 all docs	65 docs citations	65 times ranked	10681 citing authors

#	Article	IF	Citations
1	Knocking down barriers: advances in siRNA delivery. Nature Reviews Drug Discovery, 2009, 8, 129-138.	21.5	2,639
2	Lipid-like materials for low-dose, in vivo gene silencing. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1864-1869.	3.3	776
3	mRNA vaccines for infectious diseases: principles, delivery and clinical translation. Nature Reviews Drug Discovery, 2021, 20, 817-838.	21.5	577
4	Tools for translation: non-viral materials for therapeutic mRNA delivery. Nature Reviews Materials, 2017, 2, .	23.3	504
5	Managing diabetes with nanomedicine: challenges and opportunities. Nature Reviews Drug Discovery, 2015, 14, 45-57.	21.5	459
6	Degradable lipid nanoparticles with predictable in vivo siRNA delivery activity. Nature Communications, 2014, 5, 4277.	5.8	431
7	Rapid Discovery of Potent siRNA-Containing Lipid Nanoparticles Enabled by Controlled Microfluidic Formulation. Journal of the American Chemical Society, 2012, 134, 6948-6951.	6.6	288
8	Materials for oral delivery of proteins and peptides. Nature Reviews Materials, 2020, 5, 127-148.	23.3	275
9	Action and Reaction: The Biological Response to siRNA and Its Delivery Vehicles. Molecular Therapy, 2012, 20, 513-524.	3.7	231
10	Anionic nanoparticles enable the oral delivery of proteins by enhancing intestinal permeability. Nature Biomedical Engineering, 2020, 4, 84-96.	11.6	186
11	Lipid Nanoparticle Formulations for Enhanced Co-delivery of siRNA and mRNA. Nano Letters, 2018, 18, 3814-3822.	4.5	184
12	Combinatorial synthesis of chemically diverse core-shell nanoparticles for intracellular delivery. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12996-13001.	3.3	178
13	Silencing or Stimulation? siRNA Delivery and the Immune System. Annual Review of Chemical and Biomolecular Engineering, 2011, 2, 77-96.	3.3	161
14	Branchedâ€Tail Lipid Nanoparticles Potently Deliver mRNA In Vivo due to Enhanced Ionization at Endosomal pH. Small, 2019, 15, e1805097.	5.2	159
15	Achieving long-term stability of lipid nanoparticles: examining the effect of pH, temperature, and lyophilization. International Journal of Nanomedicine, 2017, Volume 12, 305-315.	3.3	157
16	Nanoparticulate Cellular Patches for Cell-Mediated Tumoritropic Delivery. ACS Nano, 2010, 4, 625-631.	7.3	133
17	Advances in Drug Delivery. Annual Review of Materials Research, 2011, 41, 1-20.	4.3	125
18	Safe and Effective Permeation Enhancers for Oral Drug Delivery. Pharmaceutical Research, 2008, 25, 1782-1788.	1.7	115

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19	Oral delivery of macromolecules using intestinal patches: applications for insulin delivery. Journal of Controlled Release, 2004, 98, 37-45.	4.8	109
20	<i>In Vitro</i>â€“<i>In Vivo</i> Translation of Lipid Nanoparticles for Hepatocellular siRNA Delivery. ACS Nano, 2012, 6, 6922-6929.	7.3	96
21	Oral delivery of siRNA lipid nanoparticles: Fate in the GI tract. Scientific Reports, 2018, 8, 2178.	1.6	91
22	The replacement of helper lipids with charged alternatives in lipid nanoparticles facilitates targeted mRNA delivery to the spleen and lungs. Journal of Controlled Release, 2022, 345, 819-831.	4.8	83
23	A Potent Branched-Tail Lipid Nanoparticle Enables Multiplexed mRNA Delivery and Gene Editing <i>In Vivo</i>. Nano Letters, 2020, 20, 5167-5175.	4.5	72
24	Recent advances in biomaterials for the treatment of diabetic foot ulcers. Biomaterials Science, 2017, 5, 1962-1975.	2.6	70
25	Combinatorial Approach to Determine Functional Group Effects on Lipidoid-Mediated siRNA Delivery. Bioconjugate Chemistry, 2010, 21, 1448-1454.	1.8	64
26	Synergistic Silencing: Combinations of Lipid-like Materials for Efficacious siRNA Delivery. Molecular Therapy, 2011, 19, 1688-1694.	3.7	62
27	Engineering Aligned Skeletal Muscle Tissue Using Decellularized Plant-Derived Scaffolds. ACS Biomaterials Science and Engineering, 2020, 6, 3046-3054.	2.6	58
28	Mechanistic Analysis of Chemical Permeation Enhancers for Oral Drug Delivery. Pharmaceutical Research, 2008, 25, 1412-1419.	1.7	57
29	A Stiff Injectable Biodegradable Elastomer. Advanced Functional Materials, 2013, 23, 1527-1533.	7.8	54
30	Silencing TNFÎ± with lipidoid nanoparticles downregulates both TNFÎ± and MCP-1 in an in vitro co-culture model of diabetic foot ulcers. Acta Biomaterialia, 2016, 32, 120-128.	4.1	51
31	Lipid nanoparticles silence tumor necrosis factor Î± to improve wound healing in diabetic mice. Bioengineering and Translational Medicine, 2019, 4, 75-82.	3.9	49
32	Lipidoid Nanoparticles for siRNA Delivery to the Intestinal Epithelium: In Vitro Investigations in a Caco-2 Model. PLoS ONE, 2015, 10, e0133154.	1.1	36
33	In pursuit of a moving target: nanotherapeutics for the treatment of non-Hodgkin B-cell lymphoma. Expert Opinion on Drug Delivery, 2014, 11, 1923-1937.	2.4	27
34	Lipid nanoparticle chemistry determines how nucleoside base modifications alter mRNA delivery. Journal of Controlled Release, 2022, 341, 206-214.	4.8	27
35	ATRP-grown protein-polymer conjugates containing phenylpiperazine selectively enhance transepithelial protein transport. Journal of Controlled Release, 2017, 255, 270-278.	4.8	26
36	Discovery of synergistic permeation enhancers for oral drug delivery. Journal of Controlled Release, 2008, 128, 128-133.	4.8	22

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37	Expanding the utility of the dextran sulfate sodium (DSS) mouse model to induce a clinically relevant loss of intestinal barrier function. PeerJ, 2020, 8, e8681.	0.9	22
38	Lipidoid nanoparticle mediated silencing of Mcl-1 induces apoptosis in mantle cell lymphoma. Experimental Biology and Medicine, 2016, 241, 1007-1013.	1.1	21
39	The pH of Piperazine Derivative Solutions Predicts Their Utility as Transepithelial Permeation Enhancers. Molecular Pharmaceutics, 2016, 13, 578-585.	2.3	20
40	Structure-Function Analysis of Phenylpiperazine Derivatives as Intestinal Permeation Enhancers. Pharmaceutical Research, 2017, 34, 1320-1329.	1.7	18
41	Oral delivery of peptide therapeutics in infants: Challenges and opportunities. Advanced Drug Delivery Reviews, 2021, 173, 112-124.	6.6	17
42	Profiling of mature-stage human breast milk cells identifies six unique lactocyte subpopulations. Science Advances, 2022, 8, .	4.7	15
43	Lipidoid Tail Structure Strongly Influences siRNA Delivery Activity. Cellular and Molecular Bioengineering, 2016, 9, 305-314.	1.0	14
44	The enhanced intestinal permeability of infant mice enables oral protein and macromolecular absorption without delivery technology. International Journal of Pharmaceutics, 2021, 593, 120120.	2.6	14
45	Intestinal permeation enhancers enable oral delivery of macromolecules up to 70ÂkDa in size. European Journal of Pharmaceutics and Biopharmaceutics, 2022, 170, 70-76.	2.0	14
46	Lipid nanoparticle siRNA cocktails for the treatment of mantle cell lymphoma. Bioengineering and Translational Medicine, 2018, 3, 138-147.	3.9	13
47	Reversible inhibition of efflux transporters by hydrogel microdevices. European Journal of Pharmaceutics and Biopharmaceutics, 2019, 145, 76-84.	2.0	12
48	Thrifty, Rapid Intestinal Monolayers (TRIM) Using Caco-2 Epithelial Cells for Oral Drug Delivery Experiments. Pharmaceutical Research, 2019, 36, 172.	1.7	9
49	Piperazine Derivatives Enhance Epithelial Cell Monolayer Permeability by Increased Cell Force Generation and Loss of Cadherin Structures. ACS Biomaterials Science and Engineering, 2020, 6, 367-374.	2.6	6
50	Longâ€term daily oral administration of intestinal permeation enhancers is safe and effective in mice. Bioengineering and Translational Medicine, 2023, 8, .	3.9	3
51	A cage for pathogens. Science Translational Medicine, 2016, 8, .	5.8	1
52	Introduction to the <i>BioTM</i> special issue â€œNucleic Acid Delivery: Enabling the Drugs of Tomorrowâ€• Bioengineering and Translational Medicine, 2016, 1, 119-120.	3.9	0
53	Development of a clinically relevant chemoresistant mantle cell lymphoma cell culture model. Experimental Biology and Medicine, 2019, 244, 865-872.	1.1	0
54	A one-two punch for pain control. Science Translational Medicine, 2016, 8, .	5.8	0

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55	Pancreatic cells play switcheroo. Science Translational Medicine, 2016, 8, .	5.8	0
56	A captive peptide for T cell activation. Science Translational Medicine, 2016, 8, .	5.8	0
57	Gobbling up inflammation to ameliorate autoimmunity. Science Translational Medicine, 2016, 8, .	5.8	0
58	Protecting kids with a patch. Science Translational Medicine, 2016, 8, .	5.8	0
59	Muscling out gene mutations. Science Translational Medicine, 2016, 8, 367ec193.	5.8	0
60	A new lease on half-life. Science Translational Medicine, 2016, 8, 369ec201.	5.8	0