Christian Plank

List of Publications by Year
in descending order

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121 papers	8,289 citations	53751 45 h-index	46771 89 g-index
124 all docs	124 docs citations	124 times ranked	8465 citing authors

#	Article	IF	Citations
1	Activation of the Complement System by Synthetic DNA Complexes: A Potential Barrier for Intravenous Gene Delivery. Human Gene Therapy, 1996, 7, 1437-1446.	1.4	572
2	Design, Synthesis, and Characterization of a Cationic Peptide That Binds to Nucleic Acids and Permeabilizes Bilayers. Biochemistry, 1997, 36, 3008-3017.	1.2	439
3	Labelling of cells with quantum dots. Nanotechnology, 2005, 16, R9-R25.	1.3	438
4	Targeted temperature sensitive magnetic liposomes for thermo-chemotherapy. Journal of Controlled Release, 2010, 142, 108-121.	4.8	435
5	Gene transfer into hepatocytes using asialoglycoprotein receptor mediated endocytosis of DNA complexed with an artificial tetra-antennary galactose ligand. Bioconjugate Chemistry, 1992, 3, 533-539.	1.8	334
6	The Magnetofection Method: Using Magnetic Force to Enhance Gene Delivery. Biological Chemistry, 2003, 384, 737-47.	1.2	318
7	Magnetically enhanced nucleic acid delivery. Ten years of magnetofectionâ€"Progress and prospects. Advanced Drug Delivery Reviews, 2011, 63, 1300-1331.	6.6	293
8	Insights into the mechanism of magnetofection using PEI-based magnetofectins for gene transfer. Journal of Gene Medicine, 2004, 6, 923-936.	1.4	266
9	Generation of magnetic nonviral gene transfer agents and magnetofection in vitro. Nature Protocols, 2007, 2, 2391-2411.	5.5	260
10	Oligomers of the Arginine-rich Motif of the HIV-1 TAT Protein Are Capable of Transferring Plasmid DNA into Cells. Journal of Biological Chemistry, 2003, 278, 11411-11418.	1.6	242
11	Branched Cationic Peptides for Gene Delivery: Role of Type and Number of Cationic Residues in Formation and in Vitro Activity of DNA Polyplexes. Human Gene Therapy, 1999, 10, 319-332.	1.4	226
12	Toll-Like Receptor Expression in Human Keratinocytes: Nuclear Factor ÎºB Controlled Gene Activation by Staphylococcus aureus is Toll-Like Receptor 2 But Not Toll-Like Receptor 4 or Platelet Activating Factor Receptor Dependent. Journal of Investigative Dermatology, 2003, 121, 1389-1396.	0.3	223
13	Magnetofectionâ€"A highly efficient tool for antisense oligonucleotide delivery in vitro and in vivo. Molecular Therapy, 2003, 7, 700-710.	3.7	179
14	Application of membrane-active peptides for drug and gene delivery across cellular membranes. Advanced Drug Delivery Reviews, 1998, 34, 21-35.	6.6	172
15	Uptake of Colloidal Polyelectrolyteâ€Coated Particles and Polyelectrolyte Multilayer Capsules by Living Cells. Advanced Materials, 2008, 20, 4281-4287.	11.1	170
16	Advances in magnetofectionâ€"magnetically guided nucleic acid delivery. Journal of Magnetism and Magnetic Materials, 2005, 293, 501-508.	1.0	150
17	Magnetofection Potentiates Gene Delivery to Cultured Endothelial Cells. Journal of Vascular Research, 2003, 40, 425-434.	0.6	120
18	Nonviral vector loaded collagen sponges for sustained gene deliveryin vitro andin vivo. Journal of Gene Medicine, 2002, 4, 634-643.	1.4	112

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19	Gene delivery to respiratory epithelial cells by magnetofection. Journal of Gene Medicine, 2004, 6, 913-922.	1.4	112
20	Enhancing and targeting nucleic acid delivery by magnetic force. Expert Opinion on Biological Therapy, 2003, 3, 745-758.	1.4	107
21	Magnetofection: Enhancing and Targeting Gene Delivery with Superparamagnetic Nanoparticles and Magnetic Fields. Journal of Liposome Research, 2003, 13, 29-32.	1.5	102
22	Application of Novel Solid Lipid Nanoparticle (SLN)-Gene Vector Formulations Based on a Dimeric HIV-1 TAT-Peptide in Vitro and in Vivo. Pharmaceutical Research, 2004, 21, 1662-1669.	1.7	99
23	Chemically modified RNA induces osteogenesis of stem cells and human tissue explants as well as accelerates bone healing in rats. Biomaterials, 2016, 87, 131-146.	5.7	87
24	A Single Methylene Group in Oligoalkylamineâ€Based Cationic Polymers and Lipids Promotes Enhanced mRNA Delivery. Angewandte Chemie - International Edition, 2016, 55, 9591-9595.	7.2	80
25	Interaction of liposomal and polycationic transfection complexes with pulmonary surfactant. Journal of Gene Medicine, 1999, 1, 331-340.	1.4	79
26	Magnetic nanoparticle formulations for DNA and siRNA delivery. Journal of Magnetism and Magnetic Materials, 2007, 311, 275-281.	1.0	75
27	Delivery of mRNA Therapeutics for the Treatment of Hepatic Diseases. Molecular Therapy, 2019, 27, 794-802.	3.7	72
28	Transferrinfection: A Highly Efficient Way to Express Gene Constructs in Eukaryotic Cells. Annals of the New York Academy of Sciences, 1992, 660, 136-153.	1.8	66
29	Monomolecular Assembly of siRNA and Poly(ethylene glycol)â^'Peptide Copolymers. Biomacromolecules, 2008, 9, 724-732.	2.6	66
30	Gene Silencing Mediated by Magnetic Lipospheres Tagged with Small Interfering RNA. Nano Letters, 2010, 10, 3914-3921.	4.5	66
31	Magnetic and Acoustically Active Lipospheres for Magnetically Targeted Nucleic Acid Delivery. Advanced Functional Materials, 2010, 20, 3881-3894.	7.8	65
32	Genuine DNA/polyethylenimine (PEI) Complexes Improve Transfection Properties and Cell Survival. Journal of Drug Targeting, 2004, 12, 223-236.	2.1	64
33	Aerosolized nanogram quantities of plasmid DNA mediate highly efficient gene delivery to mouse airway epithelium. Molecular Therapy, 2005, 12, 493-501.	3.7	64
34	Recent Advances in Magnetofection and Its Potential to Deliver siRNAs In Vitro. Methods in Molecular Biology, 2009, 487, 1-36.	0.4	64
35	Transcript-activated collagen matrix as sustained mRNA delivery system for bone regeneration. Journal of Controlled Release, 2016, 239, 137-148.	4.8	63
36	Mannose receptor-mediated gene delivery into antigen presenting dendritic cells. Somatic Cell and Molecular Genetics, 2002, 27, 65-74.	0.7	58

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37	Translation of Angiotensin-Converting Enzyme 2 upon Liver- and Lung-Targeted Delivery of Optimized Chemically Modified mRNA. Molecular Therapy - Nucleic Acids, 2017, 7, 350-365.	2.3	57
38	Neoadjuvant gene delivery of feline granulocyteâ€macrophage colonyâ€stimulating factor using magnetofection for the treatment of feline fibrosarcomas: a phase I trial. Journal of Gene Medicine, 2008, 10, 655-667.	1.4	56
39	A novel transfecting peptide comprising a tetrameric nuclear localization sequence. Journal of Molecular Medicine, 2003, 81, 708-717.	1.7	55
40	Segmented poly(A) tails significantly reduce recombination of plasmid DNA without affecting mRNA translation efficiency or half-life. Rna, 2019, 25, 507-518.	1.6	55
41	Boosting Oncolytic Adenovirus Potency with Magnetic Nanoparticles and Magnetic Force. Molecular Pharmaceutics, 2010, 7, 1069-1089.	2.3	53
42	Fetal Programming of Gene Expression in Growth-Restricted Rats Depends on the Cause of Low Birth Weight. Endocrinology, 2011, 152, 1327-1335.	1.4	51
43	A Fibrin Glue Composition as Carrier for Nucleic Acid Vectors. Pharmaceutical Research, 2008, 25, 2946-2962.	1.7	49
44	Silica-Iron Oxide Magnetic Nanoparticles Modified for Gene Delivery: A Search for Optimum and Quantitative Criteria. Pharmaceutical Research, 2012, 29, 1344-1365.	1.7	47
45	Nanomagnetosols: magnetism opens up new perspectives for targeted aerosol delivery to the lung. Trends in Biotechnology, 2008, 26, 59-63.	4.9	46
46	Modified mRNA for BMP-2 in Combination with Biomaterials Serves as a Transcript-Activated Matrix for Effectively Inducing Osteogenic Pathways in Stem Cells. Stem Cells and Development, 2017, 26, 25-34.	1.1	46
47	Vascular Repair by Circumferential Cell Therapy Using Magnetic Nanoparticles and Tailored Magnets. ACS Nano, 2016, 10, 369-376.	7.3	45
48	Improved heart repair upon myocardial infarction: Combination of magnetic nanoparticles and tailored magnets strongly increases engraftment of myocytes. Biomaterials, 2018, 155, 176-190.	5.7	45
49	Inhibition of the Tyrosine Phosphatase SHP-2 Suppresses Angiogenesis in vitro and in vivo. Journal of Vascular Research, 2008, 45, 153-163.	0.6	44
50	The influence of the stable expression of BMP2 in fibrin clots on the remodelling and repair of osteochondral defects. Biomaterials, 2009, 30, 2385-2392.	5.7	43
51	A Nebulized Gelatin Nanoparticle-Based CpG Formulation is Effective in Immunotherapy of Allergic Horses. Pharmaceutical Research, 2012, 29, 1650-1657.	1.7	42
52	Maximizing the Translational Yield of mRNA Therapeutics by Minimizing 5â€²-UTRs. Tissue Engineering - Part A, 2019, 25, 69-79.	1.6	42
53	Nonâ€viral VEGF₁₆₅ gene therapy â€“ magnetofection of acoustically active magnetic lipospheres (â€˜magnetobubblesâ€™) increases tissue survival in an oversized skin flap model. Journal of Cellular and Molecular Medicine, 2010, 14, 587-599.	1.6	41
54	Silence the target. Nature Nanotechnology, 2009, 4, 544-545.	15.6	40

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55	Magselectofection: an integrated method of nanomagnetic separation and genetic modification of target cells. Blood, 2011, 117, e171-e181.	0.6	40
56	Effects of nanoparticle coatings on the activity of oncolytic adenovirusâ€“magnetic nanoparticle complexes. Biomaterials, 2012, 33, 256-269.	5.7	40
57	Characterization of Magnetic Viral Complexes for Targeted Delivery in Oncology. Theranostics, 2015, 5, 667-685.	4.6	40
58	An Improved, Chemically Modified RNA Encoding BMP-2 Enhances Osteogenesis In Vitro and In Vivo. Tissue Engineering - Part A, 2019, 25, 131-144.	1.6	36
59	A strategy to establish a gene-activated matrix on titanium using gene vectors protected in a polylactide coating. Biomaterials, 2011, 32, 6850-6859.	5.7	35
60	Stability analysis of chemically modified mRNA using micropattern-based single-cell arrays. Lab on A Chip, 2015, 15, 3561-3571.	3.1	34
61	Site directed vascular gene delivery in vivo by ultrasonic destruction of magnetic nanoparticle coated microbubbles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2012, 8, 1309-1318.	1.7	33
62	siRNA delivery by magnetofection. Current Opinion in Molecular Therapeutics, 2008, 10, 493-505.	2.8	33
63	In vivo analysis of retroviral gene transfer to chondrocytes within collagen scaffolds for the treatment of osteochondral defects. Biomaterials, 2007, 28, 4480-4487.	5.7	32
64	HIF-1Î± Dependent Wound Healing Angiogenesis InÂVivo Can Be Controlled by Site-Specific Lentiviral Magnetic Targeting of SHP-2. Molecular Therapy, 2017, 25, 1616-1627.	3.7	32
65	Improvement of vascular function by magnetic nanoparticle-assisted circumferential gene transfer into the native endothelium. Journal of Controlled Release, 2016, 241, 164-173.	4.8	29
66	Efficient healing of large osseous segmental defects using optimized chemically modified messenger RNA encoding BMP-2. Science Advances, 2022, 8, eabl6242.	4.7	29
67	Liposomal Magnetofection. Methods in Molecular Biology, 2010, 605, 487-525.	0.4	28
68	Bioactivation of dermal scaffolds with a non-viral copolymer-protected gene vector. Biomaterials, 2011, 32, 1996-2003.	5.7	28
69	Human cellular CYBA UTR sequences increase mRNA translation without affecting the half-life of recombinant RNA transcripts. Scientific Reports, 2016, 6, 39149.	1.6	27
70	Nanomagnetic Activation as a Way to Control the Efficacy of Nucleic Acid Delivery. Pharmaceutical Research, 2015, 32, 103-121.	1.7	24
71	Immunostimulation of bronchoalveolar lavage cells from recurrent airway obstruction-affected horses by different CpG-classes bound to gelatin nanoparticles. Veterinary Immunology and Immunopathology, 2011, 144, 79-87.	0.5	23
72	Alpha-secretase inhibition reduces human glioblastoma stem cell growth in vitro and in vivo by inhibiting Notch. Neuro-Oncology, 2012, 14, 1215-1226.	0.6	23

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73	Efficient and safe gene delivery to human corneal endothelium using magnetic nanoparticles. Nanomedicine, 2016, 11, 1787-1800.	1.7	23
74	cmRNA/lipoplex encapsulation in PLGA microspheres enables transfection via calcium phosphate cement (CPC)/PLGA composites. Journal of Controlled Release, 2017, 249, 143-149.	4.8	23
75	A novel nonviral gene delivery tool of BMPâ€2 for the reconstitution of criticalâ€size bone defects in rats. Journal of Biomedical Materials Research - Part A, 2016, 104, 2441-2455.	2.1	22
76	Nucleic Acid Delivery to Magnetically-Labeled Cells in a 2D Array and at the Luminal Surface of Cell Culture Tube and Their Detection by MRI. Journal of Biomedical Nanotechnology, 2009, 5, 692-706.	0.5	22
77	Thyroid hormone (T3)-modification of polyethyleneglycol (PEG)-polyethyleneimine (PEI) graft copolymers for improved gene delivery to hepatocytes. Biomaterials, 2007, 28, 1900-1911.	5.7	21
78	Therapeutic Vaccination with an Interleukin-2â€“Interferon-Î³-Secreting Allogeneic Tumor Vaccine in Patients with Progressive Castration-Resistant Prostate Cancer: A Phase I/II Trial. Human Gene Therapy, 2009, 20, 1641-1651.	1.4	21
79	Targeted Magnetic Liposomes Loaded with Doxorubicin. Methods in Molecular Biology, 2010, 605, 279-293.	0.4	21
80	Effects of statins on nitric oxide/cGMP signaling in human umbilical vein endothelial cells. Pharmacological Reports, 2010, 62, 100-112.	1.5	20
81	Magnetofection: The Use of Magnetic Nanoparticles for Nucleic Acid Delivery: Figure 1.. Cold Spring Harbor Protocols, 2009, 2009, pdb.prot5230.	0.2	18
82	Magnetically guided lentiviralâ€mediated transduction of airway epithelial cells. Journal of Gene Medicine, 2010, 12, 747-754.	1.4	18
83	Gene delivery to Jurkat T cells using non-viral vectors associated with magnetic nanoparticles. International Journal of Biomedical Nanoscience and Nanotechnology, 2010, 1, 202.	0.1	16
84	Magnetic Microbubbles: Magnetically Targeted and Ultrasound-Triggered Vectors for Gene Delivery in Vitro. AIP Conference Proceedings, 2010, , .	0.3	16
85	Cortisol?cortisone ratios in small for gestational age (SGA) children without postnatal catch-up growth. Clinical Endocrinology, 2007, 67, 304-309.	1.2	15
86	Efficient and stable gene transfer of growth factors into chondrogenic cells and primary articular chondrocytes using a VSV.G pseudotyped retroviral vector. Biomaterials, 2008, 29, 1242-1249.	5.7	15
87	Aerosol gene delivery to the murine lung is mouse strain dependent. Journal of Molecular Medicine, 2007, 85, 371-378.	1.7	14
88	Changes in 11Â-hydroxysteroid dehydrogenase type 2 expression in a low-protein rat model of intrauterine growth restriction. Nephrology Dialysis Transplantation, 2010, 25, 3195-3203.	0.4	14
89	Biophysical Characterization of Copolymer-Protected Gene Vectors. Biomacromolecules, 2010, 11, 1802-1809.	2.6	14
90	Comparative analysis of bone regeneration behavior using recombinant human BMPâ€2 versus plasmid DNA of BMPâ€2. Journal of Biomedical Materials Research - Part A, 2019, 107, 163-173.	2.1	14

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91	Enhancement of nucleic acid delivery to hard-to-transfect human colorectal cancer cells by magnetofection at laminin coated substrates and promotion of the endosomal/lysosomal escape. RSC Advances, 2015, 5, 58345-58354.	1.7	13
92	Efficient exÂvivo delivery of chemically modified messenger RNA using lipofection and magnetofection. Biochemical and Biophysical Research Communications, 2017, 482, 796-801.	1.0	12
93	Micro-CT vs. Whole Body Multirow Detector CT for Analysing Bone Regeneration in an Animal Model. PLoS ONE, 2016, 11, e0166540.	1.1	12
94	Continuous flow generation of magnetoliposomes in a low-cost portable microfluidic platform. Lab on A Chip, 2014, 14, 4506-4512.	3.1	11
95	Magnetophoretic Velocity Determined by Space- and Time-Resolved Extinction Profiles. IEEE Magnetics Letters, 2015, 6, 1-4.	0.6	11
96	Transcript-Activated Coatings on Titanium Mediate Cellular Osteogenesis for Enhanced Osteointegration. Molecular Pharmaceutics, 2021, 18, 1121-1137.	2.3	11
97	Magnetic Nanoparticle and Magnetic Field Assisted siRNA Delivery In Vitro. Methods in Molecular Biology, 2015, 1218, 53-106.	0.4	11
98	Targeted Magnetic Liposomes Loaded with Doxorubicin. Methods in Molecular Biology, 2017, 1522, 257-272.	0.4	10
99	751. Magnetic Microbubbles: New Carriers for Localized Gene and Drug Delivery. Molecular Therapy, 2006, 13, S290.	3.7	9
100	Exploring Cytotoxic mRNAs as a Novel Class of Anti-cancer Biotherapeutics. Molecular Therapy - Methods and Clinical Development, 2018, 8, 141-151.	1.8	9
101	Research Spotlight: Magnetofectionâ„¢ platform: from magnetic nanoparticles to novel nucleic acid therapeutics. Therapeutic Delivery, 2011, 2, 717-726.	1.2	8
102	Magnetic Nanoparticles for Biomedical Applications. Pharmaceutical Research, 2012, 29, 1161-1164.	1.7	8
103	Magnetic and Acoustically Active Microbubbles Loaded with Nucleic Acids for Gene Delivery. Methods in Molecular Biology, 2013, 948, 205-241.	0.4	8
104	A Single Methylene Group in Oligoalkylamineâ€Based Cationic Polymers and Lipids Promotes Enhanced mRNA Delivery. Angewandte Chemie, 2016, 128, 9743-9747.	1.6	8
105	Transient growth hormone therapy to rats with low protein-inflicted intrauterine growth restriction does not prevent elevated blood pressure in later life. Growth Factors, 2008, 26, 355-364.	0.5	7
106	The use of non-viral gene vectors for bioactive poly-(D,L-lactide) implant surfaces in bone tissue engineering. , 2012, 23, 441-448.		7
107	Engineering magnetic nanoparticles and formulations for gene delivery. Journal of Controlled Release, 2010, 148, e63-e64.	4.8	6
108	Magnetofection Enhances Adenoviral Vector-based Gene Delivery in Skeletal Muscle Cells. Journal of Nanomedicine & Nanotechnology, 2016, 07, .	1.1	6

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109	Chemically Modified Messenger RNA: Modified RNA Application for Treatment of Achilles Tendon Defects. Tissue Engineering - Part A, 2019, 25, 113-120.	1.6	6
110	Gene activated matrices for bone and cartilage regeneration in arthritis. European Journal of Nanomedicine, 2012, 4, .	0.6	5
111	Localized Nucleic Acid Delivery: A Discussion of Selected Methods. , 2006, , 55-116.		4
112	Optimizing Adenoviral Transduction of Endothelial Cells under Flow Conditions. Pharmaceutical Research, 2012, 29, 1219-1231.	1.7	4
113	Functional analysis of bioactivated and antiinfective PDLLA â€“ coated surfaces. Journal of Biomedical Materials Research - Part A, 2017, 105, 1672-1683.	2.1	4
114	Magnetic and Acoustically Active Microbubbles Loaded with Nucleic Acids for Gene Delivery. Methods in Molecular Biology, 2019, 1943, 253-290.	0.4	4
115	Enhancing Endosomal Exit of Nucleic Acids Using pH-Sensitive Viral Fusion Peptides. , 2017, , 247-266.		2
116	Magnetofection: Using Magnetic Particles and Magnetic Force to Enhance and Target Nucleic Acid Delivery. , 2015, , 347-420.		2
117	Enhancing and targeting nucleic acid delivery by magnetic force. Expert Opinion on Biological Therapy, 2003, 3, 745-758.	1.4	1
118	Nucleic Acid Delivery and Localizing Delivery with Magnetic Nanoparticles. , 0, , 23-63.		0
119	Magnetic particle spectroscopy characterization of the assemblies of magnetic nanoparticles. , 2015, , .		0
120	Radially symmetric endothelial cell replacement and lentiviral targeting in vessels by the use of magnetic nanoparticles (MNPs). FASEB Journal, 2011, 25, 1127.1.	0.2	0
121	RECEPTOR-MEDIATED GENE DELIVERY INTO MAMMALIAN CELLS. , 1994, , 30-34.		0