

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	Efficient healing of large osseous segmental defects using optimized chemically modified messenger RNA encoding BMP-2. <i>Science Advances</i> , 2022, 8, eabl6242.	4.7	29
2	Transcript-Activated Coatings on Titanium Mediate Cellular Osteogenesis for Enhanced Osteointegration. <i>Molecular Pharmaceutics</i> , 2021, 18, 1121-1137.	2.3	11
3	An Improved, Chemically Modified RNA Encoding BMP-2 Enhances Osteogenesis <i>In Vitro</i> and <i>In Vivo</i> . <i>Tissue Engineering - Part A</i> , 2019, 25, 131-144.	1.6	36
4	Magnetic and Acoustically Active Microbubbles Loaded with Nucleic Acids for Gene Delivery. <i>Methods in Molecular Biology</i> , 2019, 1943, 253-290.	0.4	4
5	Delivery of mRNA Therapeutics for the Treatment of Hepatic Diseases. <i>Molecular Therapy</i> , 2019, 27, 794-802.	3.7	72
6	Segmented poly(A) tails significantly reduce recombination of plasmid DNA without affecting mRNA translation efficiency or half-life. <i>Rna</i> , 2019, 25, 507-518.	1.6	55
7	Comparative analysis of bone regeneration behavior using recombinant human BMP-2 versus plasmid DNA of BMP-2. <i>Journal of Biomedical Materials Research - Part A</i> , 2019, 107, 163-173.	2.1	14
8	Maximizing the Translational Yield of mRNA Therapeutics by Minimizing 5'-UTRs. <i>Tissue Engineering - Part A</i> , 2019, 25, 69-79.	1.6	42
9	Chemically Modified Messenger RNA: Modified RNA Application for Treatment of Achilles Tendon Defects. <i>Tissue Engineering - Part A</i> , 2019, 25, 113-120.	1.6	6
10	Exploring Cytotoxic mRNAs as a Novel Class of Anti-cancer Biotherapeutics. <i>Molecular Therapy - Methods and Clinical Development</i> , 2018, 8, 141-151.	1.8	9
11	Improved heart repair upon myocardial infarction: Combination of magnetic nanoparticles and tailored magnets strongly increases engraftment of myocytes. <i>Biomaterials</i> , 2018, 155, 176-190.	5.7	45
12	cmRNA/lipoplex encapsulation in PLGA microspheres enables transfection via calcium phosphate cement (CPC)/PLGA composites. <i>Journal of Controlled Release</i> , 2017, 249, 143-149.	4.8	23
13	Functional analysis of bioactivated and anti-infective PDLLA-coated surfaces. <i>Journal of Biomedical Materials Research - Part A</i> , 2017, 105, 1672-1683.	2.1	4
14	HIF-1 α Dependent Wound Healing Angiogenesis <i>In Vivo</i> Can Be Controlled by Site-Specific Lentiviral Magnetic Targeting of SHP-2. <i>Molecular Therapy</i> , 2017, 25, 1616-1627.	3.7	32
15	Translation of Angiotensin-Converting Enzyme 2 upon Liver- and Lung-Targeted Delivery of Optimized Chemically Modified mRNA. <i>Molecular Therapy - Nucleic Acids</i> , 2017, 7, 350-365.	2.3	57
16	Targeted Magnetic Liposomes Loaded with Doxorubicin. <i>Methods in Molecular Biology</i> , 2017, 1522, 257-272.	0.4	10
17	Modified mRNA for BMP-2 in Combination with Biomaterials Serves as a Transcript-Activated Matrix for Effectively Inducing Osteogenic Pathways in Stem Cells. <i>Stem Cells and Development</i> , 2017, 26, 25-34.	1.1	46
18	Efficient <i>ex vivo</i> delivery of chemically modified messenger RNA using lipofection and magnetofection. <i>Biochemical and Biophysical Research Communications</i> , 2017, 482, 796-801.	1.0	12

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19	Enhancing Endosomal Exit of Nucleic Acids Using pH-Sensitive Viral Fusion Peptides. , 2017, , 247-266.		2
20	Magnetofection Enhances Adenoviral Vector-based Gene Delivery in Skeletal Muscle Cells. Journal of Nanomedicine & Nanotechnology, 2016, 07, .	1.1	6
21	Efficient and safe gene delivery to human corneal endothelium using magnetic nanoparticles. Nanomedicine, 2016, 11, 1787-1800.	1.7	23
22	A novel nonviral gene delivery tool of BMPâ€² for the reconstitution of criticalâ€²size bone defects in rats. Journal of Biomedical Materials Research - Part A, 2016, 104, 2441-2455.	2.1	22
23	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
24	Transcript-activated collagen matrix as sustained mRNA delivery system for bone regeneration. Journal of Controlled Release, 2016, 239, 137-148.	4.8	63
25	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
26	A Single Methylene Group in Oligoalkylamineâ€²Based Cationic Polymers and Lipids Promotes Enhanced mRNA Delivery. Angewandte Chemie - International Edition, 2016, 55, 9591-9595.	7.2	80
27	A Single Methylene Group in Oligoalkylamineâ€²Based Cationic Polymers and Lipids Promotes Enhanced mRNA Delivery. Angewandte Chemie, 2016, 128, 9743-9747.	1.6	8
28	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
29	Vascular Repair by Circumferential Cell Therapy Using Magnetic Nanoparticles and Tailored Magnets. ACS Nano, 2016, 10, 369-376.	7.3	45
30	Micro-CT vs. Whole Body Multirow Detector CT for Analysing Bone Regeneration in an Animal Model. PLoS ONE, 2016, 11, e0166540.	1.1	12
31	Magnetic particle spectroscopy characterization of the assemblies of magnetic nanoparticles. , 2015, , .		0
32	Characterization of Magnetic Viral Complexes for Targeted Delivery in Oncology. Theranostics, 2015, 5, 667-685.	4.6	40
33	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
34	Magnetophoretic Velocity Determined by Space- and Time-Resolved Extinction Profiles. IEEE Magnetics Letters, 2015, 6, 1-4.	0.6	11
35	Stability analysis of chemically modified mRNA using micropattern-based single-cell arrays. Lab on A Chip, 2015, 15, 3561-3571.	3.1	34
36	Nanomagnetic Activation as a Way to Control the Efficacy of Nucleic Acid Delivery. Pharmaceutical Research, 2015, 32, 103-121.	1.7	24

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37	Magnetic Nanoparticle and Magnetic Field Assisted siRNA Delivery In Vitro. <i>Methods in Molecular Biology</i> , 2015, 1218, 53-106.	0.4	11
38	Magnetofection: Using Magnetic Particles and Magnetic Force to Enhance and Target Nucleic Acid Delivery. , 2015, , 347-420.		2
39	Continuous flow generation of magnetoliposomes in a low-cost portable microfluidic platform. <i>Lab on A Chip</i> , 2014, 14, 4506-4512.	3.1	11
40	Magnetic and Acoustically Active Microbubbles Loaded with Nucleic Acids for Gene Delivery. <i>Methods in Molecular Biology</i> , 2013, 948, 205-241.	0.4	8
41	Alpha-secretase inhibition reduces human glioblastoma stem cell growth in vitro and in vivo by inhibiting Notch. <i>Neuro-Oncology</i> , 2012, 14, 1215-1226.	0.6	23
42	Gene activated matrices for bone and cartilage regeneration in arthritis. <i>European Journal of Nanomedicine</i> , 2012, 4, .	0.6	5
43	Site directed vascular gene delivery in vivo by ultrasonic destruction of magnetic nanoparticle coated microbubbles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2012, 8, 1309-1318.	1.7	33
44	Optimizing Adenoviral Transduction of Endothelial Cells under Flow Conditions. <i>Pharmaceutical Research</i> , 2012, 29, 1219-1231.	1.7	4
45	Silica-Iron Oxide Magnetic Nanoparticles Modified for Gene Delivery: A Search for Optimum and Quantitative Criteria. <i>Pharmaceutical Research</i> , 2012, 29, 1344-1365.	1.7	47
46	A Nebulized Gelatin Nanoparticle-Based CpG Formulation is Effective in Immunotherapy of Allergic Horses. <i>Pharmaceutical Research</i> , 2012, 29, 1650-1657.	1.7	42
47	Magnetic Nanoparticles for Biomedical Applications. <i>Pharmaceutical Research</i> , 2012, 29, 1161-1164.	1.7	8
48	Effects of nanoparticle coatings on the activity of oncolytic adenovirusâ€“magnetic nanoparticle complexes. <i>Biomaterials</i> , 2012, 33, 256-269.	5.7	40
49	The use of non-viral gene vectors for bioactive poly-(D,L-lactide) implant surfaces in bone tissue engineering. , 2012, 23, 441-448.		7
50	Magselectofection: an integrated method of nanomagnetic separation and genetic modification of target cells. <i>Blood</i> , 2011, 117, e171-e181.	0.6	40
51	Immunostimulation of bronchoalveolar lavage cells from recurrent airway obstruction-affected horses by different CpG-classes bound to gelatin nanoparticles. <i>Veterinary Immunology and Immunopathology</i> , 2011, 144, 79-87.	0.5	23
52	Research Spotlight: Magnetofectionâ„¢ platform: from magnetic nanoparticles to novel nucleic acid therapeutics. <i>Therapeutic Delivery</i> , 2011, 2, 717-726.	1.2	8
53	A strategy to establish a gene-activated matrix on titanium using gene vectors protected in a polylactide coating. <i>Biomaterials</i> , 2011, 32, 6850-6859.	5.7	35
54	Magnetically enhanced nucleic acid delivery. Ten years of magnetofectionâ€“Progress and prospects. <i>Advanced Drug Delivery Reviews</i> , 2011, 63, 1300-1331.	6.6	293

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55	Bioactivation of dermal scaffolds with a non-viral copolymer-protected gene vector. <i>Biomaterials</i> , 2011, 32, 1996-2003.	5.7	28
56	Fetal Programming of Gene Expression in Growth-Restricted Rats Depends on the Cause of Low Birth Weight. <i>Endocrinology</i> , 2011, 152, 1327-1335.	1.4	51
57	Radially symmetric endothelial cell replacement and lentiviral targeting in vessels by the use of magnetic nanoparticles (MNPs). <i>FASEB Journal</i> , 2011, 25, 1127.1.	0.2	0
58	Non-viral VEGF ₁₆₅ gene therapy " magnetofection of acoustically active magnetic lipospheres ("magnetobubbles"™) increases tissue survival in an oversized skin flap model. <i>Journal of Cellular and Molecular Medicine</i> , 2010, 14, 587-599.	1.6	41
59	Targeted temperature sensitive magnetic liposomes for thermo-chemotherapy. <i>Journal of Controlled Release</i> , 2010, 142, 108-121.	4.8	435
60	Engineering magnetic nanoparticles and formulations for gene delivery. <i>Journal of Controlled Release</i> , 2010, 148, e63-e64.	4.8	6
61	Magnetic and Acoustically Active Lipospheres for Magnetically Targeted Nucleic Acid Delivery. <i>Advanced Functional Materials</i> , 2010, 20, 3881-3894.	7.8	65
62	Magnetically guided lentiviral-mediated transduction of airway epithelial cells. <i>Journal of Gene Medicine</i> , 2010, 12, 747-754.	1.4	18
63	Gene delivery to Jurkat T cells using non-viral vectors associated with magnetic nanoparticles. <i>International Journal of Biomedical Nanoscience and Nanotechnology</i> , 2010, 1, 202.	0.1	16
64	Magnetic Microbubbles: Magnetically Targeted and Ultrasound-Triggered Vectors for Gene Delivery in Vitro. <i>AIP Conference Proceedings</i> , 2010, , .	0.3	16
65	Changes in 11 β -hydroxysteroid dehydrogenase type 2 expression in a low-protein rat model of intrauterine growth restriction. <i>Nephrology Dialysis Transplantation</i> , 2010, 25, 3195-3203.	0.4	14
66	Liposomal Magnetofection. <i>Methods in Molecular Biology</i> , 2010, 605, 487-525.	0.4	28
67	Boosting Oncolytic Adenovirus Potency with Magnetic Nanoparticles and Magnetic Force. <i>Molecular Pharmaceutics</i> , 2010, 7, 1069-1089.	2.3	53
68	Biophysical Characterization of Copolymer-Protected Gene Vectors. <i>Biomacromolecules</i> , 2010, 11, 1802-1809.	2.6	14
69	Gene Silencing Mediated by Magnetic Lipospheres Tagged with Small Interfering RNA. <i>Nano Letters</i> , 2010, 10, 3914-3921.	4.5	66
70	Targeted Magnetic Liposomes Loaded with Doxorubicin. <i>Methods in Molecular Biology</i> , 2010, 605, 279-293.	0.4	21
71	Effects of statins on nitric oxide/cGMP signaling in human umbilical vein endothelial cells. <i>Pharmacological Reports</i> , 2010, 62, 100-112.	1.5	20
72	Silence the target. <i>Nature Nanotechnology</i> , 2009, 4, 544-545.	15.6	40

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73	The influence of the stable expression of BMP2 in fibrin clots on the remodelling and repair of osteochondral defects. <i>Biomaterials</i> , 2009, 30, 2385-2392.	5.7	43
74	Therapeutic Vaccination with an Interleukin-2-Interferon- β -Secreting Allogeneic Tumor Vaccine in Patients with Progressive Castration-Resistant Prostate Cancer: A Phase I/II Trial. <i>Human Gene Therapy</i> , 2009, 20, 1641-1651.	1.4	21
75	Recent Advances in Magnetofection and Its Potential to Deliver siRNAs In Vitro. <i>Methods in Molecular Biology</i> , 2009, 487, 1-36.	0.4	64
76	Magnetofection: The Use of Magnetic Nanoparticles for Nucleic Acid Delivery: Figure 1.. <i>Cold Spring Harbor Protocols</i> , 2009, 2009, pdb.prot5230.	0.2	18
77	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. <i>Journal of Biomedical Nanotechnology</i> , 2009, 5, 692-706.	0.5	22
78	A Fibrin Glue Composition as Carrier for Nucleic Acid Vectors. <i>Pharmaceutical Research</i> , 2008, 25, 2946-2962.	1.7	49
79	Neoadjuvant gene delivery of feline granulocyte-macrophage colony-stimulating factor using magnetofection for the treatment of feline fibrosarcomas: a phase I trial. <i>Journal of Gene Medicine</i> , 2008, 10, 655-667.	1.4	56
80	Uptake of Colloidal Polyelectrolyte-Coated Particles and Polyelectrolyte Multilayer Capsules by Living Cells. <i>Advanced Materials</i> , 2008, 20, 4281-4287.	11.1	170
81	Efficient and stable gene transfer of growth factors into chondrogenic cells and primary articular chondrocytes using a VSV.G pseudotyped retroviral vector. <i>Biomaterials</i> , 2008, 29, 1242-1249.	5.7	15
82	Nanomagnetosols: magnetism opens up new perspectives for targeted aerosol delivery to the lung. <i>Trends in Biotechnology</i> , 2008, 26, 59-63.	4.9	46
83	Monomolecular Assembly of siRNA and Poly(ethylene glycol)-Peptide Copolymers. <i>Biomacromolecules</i> , 2008, 9, 724-732.	2.6	66
84	Inhibition of the Tyrosine Phosphatase SHP-2 Suppresses Angiogenesis in vitro and in vivo. <i>Journal of Vascular Research</i> , 2008, 45, 153-163.	0.6	44
85	Transient growth hormone therapy to rats with low protein-inflicted intrauterine growth restriction does not prevent elevated blood pressure in later life. <i>Growth Factors</i> , 2008, 26, 355-364.	0.5	7
86	siRNA delivery by magnetofection. <i>Current Opinion in Molecular Therapeutics</i> , 2008, 10, 493-505.	2.8	33
87	In vivo analysis of retroviral gene transfer to chondrocytes within collagen scaffolds for the treatment of osteochondral defects. <i>Biomaterials</i> , 2007, 28, 4480-4487.	5.7	32
88	Thyroid hormone (T3)-modification of polyethyleneglycol (PEG)-polyethyleneimine (PEI) graft copolymers for improved gene delivery to hepatocytes. <i>Biomaterials</i> , 2007, 28, 1900-1911.	5.7	21
89	Generation of magnetic nonviral gene transfer agents and magnetofection in vitro. <i>Nature Protocols</i> , 2007, 2, 2391-2411.	5.5	260
90	Cortisol/cortisone ratios in small for gestational age (SGA) children without postnatal catch-up growth. <i>Clinical Endocrinology</i> , 2007, 67, 304-309.	1.2	15

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91	Aerosol gene delivery to the murine lung is mouse strain dependent. <i>Journal of Molecular Medicine</i> , 2007, 85, 371-378.	1.7	14
92	Magnetic nanoparticle formulations for DNA and siRNA delivery. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 311, 275-281.	1.0	75
93	Localized Nucleic Acid Delivery: A Discussion of Selected Methods. , 2006, , 55-116.		4
94	751. Magnetic Microbubbles: New Carriers for Localized Gene and Drug Delivery. <i>Molecular Therapy</i> , 2006, 13, S290.	3.7	9
95	Advances in magnetofectionâ€”magnetically guided nucleic acid delivery. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 293, 501-508.	1.0	150
96	Aerosolized nanogram quantities of plasmid DNA mediate highly efficient gene delivery to mouse airway epithelium. <i>Molecular Therapy</i> , 2005, 12, 493-501.	3.7	64
97	Labelling of cells with quantum dots. <i>Nanotechnology</i> , 2005, 16, R9-R25.	1.3	438
98	Application of Novel Solid Lipid Nanoparticle (SLN)-Gene Vector Formulations Based on a Dimeric HIV-1 TAT-Peptide in Vitro and in Vivo. <i>Pharmaceutical Research</i> , 2004, 21, 1662-1669.	1.7	99
99	Gene delivery to respiratory epithelial cells by magnetofection. <i>Journal of Gene Medicine</i> , 2004, 6, 913-922.	1.4	112
100	Insights into the mechanism of magnetofection using PEI-based magnetofectins for gene transfer. <i>Journal of Gene Medicine</i> , 2004, 6, 923-936.	1.4	266
101	Genuine DNA/polyethylenimine (PEI) Complexes Improve Transfection Properties and Cell Survival. <i>Journal of Drug Targeting</i> , 2004, 12, 223-236.	2.1	64
102	A novel transfecting peptide comprising a tetrameric nuclear localization sequence. <i>Journal of Molecular Medicine</i> , 2003, 81, 708-717.	1.7	55
103	Toll-Like Receptor Expression in Human Keratinocytes: Nuclear Factor κ B Controlled Gene Activation by Staphylococcus aureus is Toll-Like Receptor 2 But Not Toll-Like Receptor 4 or Platelet Activating Factor Receptor Dependent. <i>Journal of Investigative Dermatology</i> , 2003, 121, 1389-1396.	0.3	223
104	The Magnetofection Method: Using Magnetic Force to Enhance Gene Delivery. <i>Biological Chemistry</i> , 2003, 384, 737-47.	1.2	318
105	Magnetofection Potentiates Gene Delivery to Cultured Endothelial Cells. <i>Journal of Vascular Research</i> , 2003, 40, 425-434.	0.6	120
106	Oligomers of the Arginine-rich Motif of the HIV-1 TAT Protein Are Capable of Transferring Plasmid DNA into Cells. <i>Journal of Biological Chemistry</i> , 2003, 278, 11411-11418.	1.6	242
107	Magnetofection: Enhancing and Targeting Gene Delivery with Superparamagnetic Nanoparticles and Magnetic Fields. <i>Journal of Liposome Research</i> , 2003, 13, 29-32.	1.5	102
108	Enhancing and targeting nucleic acid delivery by magnetic force. <i>Expert Opinion on Biological Therapy</i> , 2003, 3, 745-758.	1.4	107

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109	Magnetofection – A highly efficient tool for antisense oligonucleotide delivery in vitro and in vivo. <i>Molecular Therapy</i> , 2003, 7, 700-710.	3.7	179
110	Enhancing and targeting nucleic acid delivery by magnetic force. <i>Expert Opinion on Biological Therapy</i> , 2003, 3, 745-758.	1.4	1
111	Mannose receptor-mediated gene delivery into antigen presenting dendritic cells. <i>Somatic Cell and Molecular Genetics</i> , 2002, 27, 65-74.	0.7	58
112	Nonviral vector loaded collagen sponges for sustained gene delivery in vitro and in vivo. <i>Journal of Gene Medicine</i> , 2002, 4, 634-643.	1.4	112
113	Interaction of liposomal and polycationic transfection complexes with pulmonary surfactant. <i>Journal of Gene Medicine</i> , 1999, 1, 331-340.	1.4	79
114	Branched Cationic Peptides for Gene Delivery: Role of Type and Number of Cationic Residues in Formation and in Vitro Activity of DNA Polyplexes. <i>Human Gene Therapy</i> , 1999, 10, 319-332.	1.4	226
115	Application of membrane-active peptides for drug and gene delivery across cellular membranes. <i>Advanced Drug Delivery Reviews</i> , 1998, 34, 21-35.	6.6	172
116	Design, Synthesis, and Characterization of a Cationic Peptide That Binds to Nucleic Acids and Permeabilizes Bilayers. <i>Biochemistry</i> , 1997, 36, 3008-3017.	1.2	439
117	Activation of the Complement System by Synthetic DNA Complexes: A Potential Barrier for Intravenous Gene Delivery. <i>Human Gene Therapy</i> , 1996, 7, 1437-1446.	1.4	572
118	RECEPTOR-MEDIATED GENE DELIVERY INTO MAMMALIAN CELLS. , 1994, , 30-34.		0
119	Gene transfer into hepatocytes using asialoglycoprotein receptor mediated endocytosis of DNA complexed with an artificial tetra-antennary galactose ligand. <i>Bioconjugate Chemistry</i> , 1992, 3, 533-539.	1.8	334
120	Transferrin infection: A Highly Efficient Way to Express Gene Constructs in Eukaryotic Cells. <i>Annals of the New York Academy of Sciences</i> , 1992, 660, 136-153.	1.8	66
121	Nucleic Acid Delivery and Localizing Delivery with Magnetic Nanoparticles. , 0, , 23-63.		0