Lijie Grace Zhang

List of Publications by Year
in descending order

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93 papers	7,160 citations	34105 52 h-index	58581 82 g-index
94 all docs	94 docs citations	94 times ranked	8139 citing authors

#	Article	IF	Citations
1	Nanotechnology and 3D/4D Bioprinting for Neural Tissue Regeneration. , 2022, , 427-458.		4
2	Emerging 4D Printing Strategies for Nextâ€Generation Tissue Regeneration and Medical Devices. Advanced Materials, 2022, 34, e2109198.	21.0	57
3	An in vitro analysis of the effect of geometry-induced flows on endothelial cell behavior in 3D printed small-diameter blood vessels. , 2022, 137, 212832.		9
4	4D Printed Cardiac Construct with Aligned Myofibers and Adjustable Curvature for Myocardial Regeneration. ACS Applied Materials & Interfaces, 2021, 13, 12746-12758.	8.0	82
5	4D printing in biomedical applications: emerging trends and technologies. Journal of Materials Chemistry B, 2021, 9, 7608-7632.	5.8	65
6	Dual 3D printing for vascularized bone tissue regeneration. Acta Biomaterialia, 2021, 123, 263-274.	8.3	53
7	3D printing novel in vitro cancer cell culture model systems for lung cancer stem cell study. Materials Science and Engineering C, 2021, 122, 111914.	7.3	32
8	Recent advances in bioprinting technologies for engineering hepatic tissue. Materials Science and Engineering C, 2021, 123, 112013.	7.3	26
9	Recent advances in bioprinting technologies for engineering cardiac tissue. Materials Science and Engineering C, 2021, 124, 112057.	7.3	35
10	Acoustic Droplet Vaporization of Perfluorocarbon Droplets in 3D-Printable Gelatin Methacrylate Scaffolds. Ultrasound in Medicine and Biology, 2021, 47, 3263-3274.	1.5	2
11	In vitroandin vivoevaluation of 3D bioprinted small-diameter vasculature with smooth muscle and endothelium. Biofabrication, 2020, 12, 015004.	7.1	90
12	Touch-Spun Nanofibers for Nerve Regeneration. ACS Applied Materials & Interfaces, 2020, 12, 2067-2075.	8.0	27
13	Engineering a Novel 3D Printed Vascularized Tissue Model for Investigating Breast Cancer Metastasis to Bone. Advanced Healthcare Materials, 2020, 9, e1900924.	7.6	45
14	3D printing multiphasic osteochondral tissue constructs with nano to micro features via PCL based bioink. Bioprinting, 2020, 17, e00066.	5.8	29
15	3D Bioprinting-Tunable Small-Diameter Blood Vessels with Biomimetic Biphasic Cell Layers. ACS Applied Materials & Interfaces, 2020, 12, 45904-45915.	8.0	70
16	4D printing soft robotics for biomedical applications. Additive Manufacturing, 2020, 36, 101567.	3.0	73
17	Three-Dimensional Printing Biologically Inspired DNA-Based Gradient Scaffolds for Cartilage Tissue Regeneration. ACS Applied Materials & Interfaces, 2020, 12, 33219-33228.	8.0	57
18	4D physiologically adaptable cardiac patch: A 4-month in vivo study for the treatment of myocardial infarction. Science Advances, 2020, 6, eabb5067.	10.3	118

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19	4D Selfâ€Morphing Culture Substrate for Modulating Cell Differentiation. Advanced Science, 2020, 7, 1902403.	11.2	46
20	Three-Dimensional Printing: A Catalyst for a Changing Orthopaedic Landscape. JBJS Reviews, 2020, 8, e0076-e0076.	2.0	18
21	Inhibition of Human Breast Cancer Cell Proliferation by <scp>Lowâ€Intensity</scp> Ultrasound Stimulation. Journal of Ultrasound in Medicine, 2020, 39, 2043-2052.	1.7	10
22	Integrating cold atmospheric plasma with 3D printed bioactive nanocomposite scaffold for cartilage regeneration. Materials Science and Engineering C, 2020, 111, 110844.	7.3	22
23	Advanced 4D-bioprinting technologies for brain tissue modeling and study. International Journal of Smart and Nano Materials, 2019, 10, 177-204.	4.2	40
24	Development of 3D printable conductive hydrogel with crystallized PEDOT:PSS for neural tissue engineering. Materials Science and Engineering C, 2019, 99, 582-590.	7.3	167
25	Integration of biological systems with electronic-mechanical assemblies. Acta Biomaterialia, 2019, 95, 91-111.	8.3	23
26	3D Printed scaffolds with hierarchical biomimetic structure for osteochondral regeneration. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 19, 58-70.	3.3	49
27	4D anisotropic skeletal muscle tissue constructs fabricated by staircase effect strategy. Biofabrication, 2019, 11, 035030.	7.1	40
28	A novel near-infrared light responsive 4D printed nanoarchitecture with dynamically and remotely controllable transformation. Nano Research, 2019, 12, 1381-1388.	10.4	82
29	Recent advances in 3D printing: vascular network for tissue and organ regeneration. Translational Research, 2019, 211, 46-63.	5.0	92
30	Enhanced Osteogenic Differentiation of Human Mesenchymal Stem Cells Using Microbubbles and Low Intensity Pulsed Ultrasound on 3D Printed Scaffolds. Advanced Biology, 2019, 3, e1800257.	3.0	19
31	Three-Dimensional-Bioprinted Dopamine-Based Matrix for Promoting Neural Regeneration. ACS Applied Materials & Interfaces, 2018, 10, 8993-9001.	8.0	97
32	Photolithographic-stereolithographic-tandem fabrication of 4D smart scaffolds for improved stem cell cardiomyogenic differentiation. Biofabrication, 2018, 10, 035007.	7.1	92
33	Biophysical Assessment of Pulmonary Surfactant Predicts the Lung Toxicity of Nanomaterials. Small Methods, 2018, 2, 1700367.	8.6	28
34	3D bioprinting mesenchymal stem cell-laden construct with coreâ€“shell nanospheres for cartilage tissue engineering. Nanotechnology, 2018, 29, 185101.	2.6	134
35	How can 3D printing be a powerful tool in nanomedicine?. Nanomedicine, 2018, 13, 251-253.	3.3	15
36	Advances in 3D Bioprinting for Neural Tissue Engineering. Advanced Biology, 2018, 2, 1700213.	3.0	69

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37	3D printing nano conductive multi-walled carbon nanotube scaffolds for nerve regeneration. Journal of Neural Engineering, 2018, 15, 016018.	3.5	176
38	Single-step synthesis of carbon encapsulated magnetic nanoparticles in arc plasma and potential biomedical applications. Journal of Colloid and Interface Science, 2018, 509, 414-421.	9.4	23
39	Bio-Based Polymers for 3D Printing of Bioscaffolds. Polymer Reviews, 2018, 58, 668-687.	10.9	67
40	Directly Induced Neural Differentiation of Human Adipose-Derived Stem Cells Using Three-Dimensional Culture System of Conductive Microwell with Electrical Stimulation. Tissue Engineering - Part A, 2018, 24, 537-545.	3.1	28
41	3D bioprinting for cardiovascular regeneration and pharmacology. Advanced Drug Delivery Reviews, 2018, 132, 252-269.	13.7	115
42	Aggregation State of Metal-Based Nanomaterials at the Pulmonary Surfactant Film Determines Biophysical Inhibition. Environmental Science & Technology, 2018, 52, 8920-8929.	10.0	38
43	Stereolithographic 4D Bioprinting of Multiresponsive Architectures for Neural Engineering. Advanced Biology, 2018, 2, 1800101.	3.0	114
44	Enhanced neural stem cell functions in conductive annealed carbon nanofibrous scaffolds with electrical stimulation. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 2485-2494.	3.3	89
45	Development of Novel 3-D Printed Scaffolds With Core-Shell Nanoparticles for Nerve Regeneration. IEEE Transactions on Biomedical Engineering, 2017, 64, 408-418.	4.2	62
46	Enhanced bone tissue regeneration using a 3D printed microstructure incorporated with a hybrid nano hydrogel. Nanoscale, 2017, 9, 5055-5062.	5.6	121
47	3D bioprinted graphene oxide-incorporated matrix for promoting chondrogenic differentiation of human bone marrow mesenchymal stem cells. Carbon, 2017, 116, 615-624.	10.3	145
48	3D printing scaffold coupled with low level light therapy for neural tissue regeneration. Biofabrication, 2017, 9, 025002.	7.1	68
49	Fabrication of a Highly Aligned Neural Scaffold via a Table Top Stereolithography 3D Printing and Electrospinning<sup />. Tissue Engineering - Part A, 2017, 23, 491-502.	3.1	125
50	3D Bioprinting for Organ Regeneration. Advanced Healthcare Materials, 2017, 6, 1601118.	7.6	385
51	Integrating three-dimensional printing and nanotechnology for musculoskeletal regeneration. Nanotechnology, 2017, 28, 382001.	2.6	22
52	4D printing of polymeric materials for tissue and organ regeneration. Materials Today, 2017, 20, 577-591.	14.2	292
53	Three-Dimensional Printing Articular Cartilage: Recapitulating the Complexity of Native Tissue<sup />. Tissue Engineering - Part B: Reviews, 2017, 23, 225-236.	4.8	55
54	Biomaterials and 3D Printing Techniques for Neural Tissue Regeneration. , 2016, , 1-24.		6

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55	A 3D printed nano bone matrix for characterization of breast cancer cell and osteoblast interactions. Nanotechnology, 2016, 27, 315103.	2.6	62
56	Synergistic Effect of Cold Atmospheric Plasma and Drug Loaded Core-shell Nanoparticles on Inhibiting Breast Cancer Cell Growth. Scientific Reports, 2016, 6, 21974.	3.3	70
57	Multifunctional hydrogel coatings on the surface of neural cuff electrode for improving electrode-nerve tissue interfaces. Acta Biomaterialia, 2016, 39, 25-33.	8.3	71
58	3D printing of novel osteochondral scaffolds with graded microstructure. Nanotechnology, 2016, 27, 414001.	2.6	62
59	Biologically Inspired Smart Release System Based on 3D Bioprinted Perfused Scaffold for Vascularized Tissue Regeneration. Advanced Science, 2016, 3, 1600058.	11.2	116
60	Lipid Coated Microbubbles and Low Intensity Pulsed Ultrasound Enhance Chondrogenesis of Human Mesenchymal Stem Cells in 3D Printed Scaffolds. Scientific Reports, 2016, 6, 37728.	3.3	39
61	Hierarchical Fabrication of Engineered Vascularized Bone Biphasic Constructs via Dual 3D Bioprinting: Integrating Regional Bioactive Factors into Architectural Design. Advanced Healthcare Materials, 2016, 5, 2174-2181.	7.6	153
62	4D printing smart biomedical scaffolds with novel soybean oil epoxidized acrylate. Scientific Reports, 2016, 6, 27226.	3.3	296
63	Gelatin methacrylamide hydrogel with graphene nanoplatelets for neural cell-laden 3D bioprinting. , 2016, 2016, 4185-4188.		56
64	Improved Human Bone Marrow Mesenchymal Stem Cell Osteogenesis in 3D Bioprinted Tissue Scaffolds with Low Intensity Pulsed Ultrasound Stimulation. Scientific Reports, 2016, 6, 32876.	3.3	99
65	Four-Dimensional Printing Hierarchy Scaffolds with Highly Biocompatible Smart Polymers for Tissue Engineering Applications. Tissue Engineering - Part C: Methods, 2016, 22, 952-963.	2.1	128
66	3D Bioprinting a Cell-Laden Bone Matrix for Breast Cancer Metastasis Study. ACS Applied Materials & Interfaces, 2016, 8, 30017-30026.	8.0	234
67	Simulated Body Fluid Nucleation of Three-Dimensional Printed Elastomeric Scaffolds for Enhanced Osteogenesis. Tissue Engineering - Part A, 2016, 22, 940-948.	3.1	14
68	Enhanced human bone marrow mesenchymal stem cell chondrogenic differentiation in electrospun constructs with carbon nanomaterials. Carbon, 2016, 97, 1-13.	10.3	66
69	A synergistic approach to the design, fabrication and evaluation of 3D printed micro and nano featured scaffolds for vascularized bone tissue repair. Nanotechnology, 2016, 27, 064001.	2.6	126
70	Titanium dental implants surface-immobilized with gold nanoparticles as osteoinductive agents for rapid osseointegration. Journal of Colloid and Interface Science, 2016, 469, 129-137.	9.4	87
71	3D printed nanocomposite matrix for the study of breast cancer bone metastasis. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 69-79.	3.3	162
72	Cold Atmospheric Plasma Modified Electrospun Scaffolds with Embedded Microspheres for Improved Cartilage Regeneration. PLoS ONE, 2015, 10, e0134729.	2.5	29

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73	Enhanced human bone marrow mesenchymal stem cell functions on cathodic arc plasma-treated titanium. International Journal of Nanomedicine, 2015, 10, 7385.	6.7	8
74	Engineering a biomimetic three-dimensional nanostructured bone model for breast cancer bone metastasis study. Acta Biomaterialia, 2015, 14, 164-174.	8.3	70
75	Nanotechnology: A Toolkit for Cell Behavior. , 2015, , 1-24.		1
76	Highly aligned nanocomposite scaffolds by electrospinning and electrospraying for neural tissue regeneration. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 693-704.	3.3	108
77	Integrating biologically inspired nanomaterials and table-top stereolithography for 3D printed biomimetic osteochondral scaffolds. Nanoscale, 2015, 7, 14010-14022.	5.6	172
78	Design of a Novel 3D Printed Bioactive Nanocomposite Scaffold for Improved Osteochondral Regeneration. Cellular and Molecular Bioengineering, 2015, 8, 416-432.	2.1	66
79	Three-Dimensional Printing of Nanomaterial Scaffolds for Complex Tissue Regeneration. Tissue Engineering - Part B: Reviews, 2015, 21, 103-114.	4.8	178
80	Development of Novel Three-Dimensional Printed Scaffolds for Osteochondral Regeneration. Tissue Engineering - Part A, 2015, 21, 403-415.	3.1	80
81	Nanotechnology: A Toolkit for Cell Behavior. , 2015, , 3-32.		0
82	Enhanced Human Bone Marrow Mesenchymal Stem Cell Chondrogenic Differentiation on Cold Atmospheric Plasma Modified Cartilage Scaffold. Materials Research Society Symposia Proceedings, 2014, 1723, 1.	0.1	3
83	Biomimetic biphasic 3â€Ð nanocomposite scaffold for osteochondral regeneration. AICHE Journal, 2014, 60, 432-442.	3.6	26
84	Design of Biomimetic and Bioactive Cold Plasma-Modified Nanostructured Scaffolds for Enhanced Osteogenic Differentiation of Bone Marrow-Derived Mesenchymal Stem Cells. Tissue Engineering - Part A, 2014, 20, 1060-1071.	3.1	73
85	3D nano/microfabrication techniques and nanobiomaterials for neural tissue regeneration. Nanomedicine, 2014, 9, 859-875.	3.3	98
86	Enhanced human bone marrow mesenchymal stem cell functions in novel 3D cartilage scaffolds with hydrogen treated multi-walled carbon nanotubes. Nanotechnology, 2013, 24, 365102.	2.6	56
87	Novel biologically-inspired rosette nanotube PLLA scaffolds for improving human mesenchymal stem cell chondrogenic differentiation. Biomedical Materials (Bristol), 2013, 8, 065003.	3.3	42
88	Cold Atmospheric Plasma for Selectively Ablating Metastatic Breast Cancer Cells. PLoS ONE, 2013, 8, e73741.	2.5	170
89	Greater Osteoblast and Mesenchymal Stem Cell Adhesion and Proliferation on Titanium with Hydrothermally Treated Nanocrystalline Hydroxyapatite/Magnetically Treated Carbon Nanotubes. Journal of Nanoscience and Nanotechnology, 2012, 12, 7692-7702.	0.9	40
90	Biomimetic three-dimensional nanocrystalline hydroxyapatite and magnetically synthesized single-walled carbon nanotube chitosan nanocomposite for bone regeneration. International Journal of Nanomedicine, 2012, 7, 2087.	6.7	105

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91	Electrospun Fibrous Scaffolds for Bone and Cartilage Tissue Generation: Recent Progress and Future Developments. Tissue Engineering - Part B: Reviews, 2012, 18, 478-486.	4.8	56
92	Nanobiotechnology and Nanostructured Therapeutic Delivery Systems. Recent Patents on Biomedical Engineering, 2012, 5, 29-40.	0.5	5
93	Recent Progress in Interfacial Tissue Engineering Approaches for Osteochondral Defects. Annals of Biomedical Engineering, 2012, 40, 1628-1640.	2.5	83