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	3D Bioprinting for Organ Regeneration. Advanced Healthcare Materials, 2017, 6, 1601118.	7.6	385
2	4D printing smart biomedical scaffolds with novel soybean oil epoxidized acrylate. Scientific Reports, 2016, 6, 27226.	3.3	296
3	4D printing of polymeric materials for tissue and organ regeneration. Materials Today, 2017, 20, 577-591.	14.2	292
4	3D Bioprinting a Cell-Laden Bone Matrix for Breast Cancer Metastasis Study. ACS Applied Materials & Interfaces, 2016, 8, 30017-30026.	8.0	234
5	Three-Dimensional Printing of Nanomaterial Scaffolds for Complex Tissue Regeneration. Tissue Engineering - Part B: Reviews, 2015, 21, 103-114.	4.8	178
6	3D printing nano conductive multi-walled carbon nanotube scaffolds for nerve regeneration. Journal of Neural Engineering, 2018, 15, 016018.	3.5	176
7	Integrating biologically inspired nanomaterials and table-top stereolithography for 3D printed biomimetic osteochondral scaffolds. Nanoscale, 2015, 7, 14010-14022.	5.6	172
8	Cold Atmospheric Plasma for Selectively Ablating Metastatic Breast Cancer Cells. PLoS ONE, 2013, 8, e73741.	2.5	170
9	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
10	3D printed nanocomposite matrix for the study of breast cancer bone metastasis. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 69-79.	3.3	162
11	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
12	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
13	3D bioprinting mesenchymal stem cell-laden construct with coreâ€“shell nanospheres for cartilage tissue engineering. Nanotechnology, 2018, 29, 185101.	2.6	134
14	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
15	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
16	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
17	Enhanced bone tissue regeneration using a 3D printed microstructure incorporated with a hybrid nano hydrogel. Nanoscale, 2017, 9, 5055-5062.	5.6	121
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	Biologically Inspired Smart Release System Based on 3D Bioprinted Perfused Scaffold for Vascularized Tissue Regeneration. Advanced Science, 2016, 3, 1600058.	11.2	116
20	3D bioprinting for cardiovascular regeneration and pharmacology. Advanced Drug Delivery Reviews, 2018, 132, 252-269.	13.7	115
21	Stereolithographic 4D Bioprinting of Multiresponsive Architectures for Neural Engineering. Advanced Biology, 2018, 2, 1800101.	3.0	114
22	Highly aligned nanocomposite scaffolds by electrospinning and electrospraying for neural tissue regeneration. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 693-704.	3.3	108
23	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
24	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
25	3D nano/microfabrication techniques and nanobiomaterials for neural tissue regeneration. Nanomedicine, 2014, 9, 859-875.	3.3	98
26	Three-Dimensional-Bioprinted Dopamine-Based Matrix for Promoting Neural Regeneration. ACS Applied Materials & Interfaces, 2018, 10, 8993-9001.	8.0	97
27	Photolithographic-stereolithographic-tandem fabrication of 4D smart scaffolds for improved stem cell cardiomyogenic differentiation. Biofabrication, 2018, 10, 035007.	7.1	92
28	Recent advances in 3D printing: vascular network for tissue and organ regeneration. Translational Research, 2019, 211, 46-63.	5.0	92
29	In vitroandin vivoevaluation of 3D bioprinted small-diameter vasculature with smooth muscle and endothelium. Biofabrication, 2020, 12, 015004.	7.1	90
30	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
31	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
32	Recent Progress in Interfacial Tissue Engineering Approaches for Osteochondral Defects. Annals of Biomedical Engineering, 2012, 40, 1628-1640.	2.5	83
33	A novel near-infrared light responsive 4D printed nanoarchitecture with dynamically and remotely controllable transformation. Nano Research, 2019, 12, 1381-1388.	10.4	82
34	4D Printed Cardiac Construct with Aligned Myofibers and Adjustable Curvature for Myocardial Regeneration. ACS Applied Materials & Interfaces, 2021, 13, 12746-12758.	8.0	82
35	Development of Novel Three-Dimensional Printed Scaffolds for Osteochondral Regeneration. Tissue Engineering - Part A, 2015, 21, 403-415.	3.1	80
36	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

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37	4D printing soft robotics for biomedical applications. Additive Manufacturing, 2020, 36, 101567.	3.0	73
38	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
39	Engineering a biomimetic three-dimensional nanostructured bone model for breast cancer bone metastasis study. Acta Biomaterialia, 2015, 14, 164-174.	8.3	70
40	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
41	3D Bioprinting-Tunable Small-Diameter Blood Vessels with Biomimetic Biphasic Cell Layers. ACS Applied Materials & Interfaces, 2020, 12, 45904-45915.	8.0	70
42	Advances in 3D Bioprinting for Neural Tissue Engineering. Advanced Biology, 2018, 2, 1700213.	3.0	69
43	3D printing scaffold coupled with low level light therapy for neural tissue regeneration. Biofabrication, 2017, 9, 025002.	7.1	68
44	Bio-Based Polymers for 3D Printing of Bioscaffolds. Polymer Reviews, 2018, 58, 668-687.	10.9	67
45	Design of a Novel 3D Printed Bioactive Nanocomposite Scaffold for Improved Osteochondral Regeneration. Cellular and Molecular Bioengineering, 2015, 8, 416-432.	2.1	66
46	Enhanced human bone marrow mesenchymal stem cell chondrogenic differentiation in electrospun constructs with carbon nanomaterials. Carbon, 2016, 97, 1-13.	10.3	66
47	4D printing in biomedical applications: emerging trends and technologies. Journal of Materials Chemistry B, 2021, 9, 7608-7632.	5.8	65
48	A 3D printed nano bone matrix for characterization of breast cancer cell and osteoblast interactions. Nanotechnology, 2016, 27, 315103.	2.6	62
49	3D printing of novel osteochondral scaffolds with graded microstructure. Nanotechnology, 2016, 27, 414001.	2.6	62
50	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
51	Three-Dimensional Printing Biologically Inspired DNA-Based Gradient Scaffolds for Cartilage Tissue Regeneration. ACS Applied Materials & Interfaces, 2020, 12, 33219-33228.	8.0	57
52	Emerging 4D Printing Strategies for Nextâ€Generation Tissue Regeneration and Medical Devices. Advanced Materials, 2022, 34, e2109198.	21.0	57
53	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
54	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

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55	Gelatin methacrylamide hydrogel with graphene nanoplatelets for neural cell-laden 3D bioprinting. , 2016, 2016, 4185-4188.		56
56	Three-Dimensional Printing Articular Cartilage: Recapitulating the Complexity of Native Tissue<sup />. Tissue Engineering - Part B: Reviews, 2017, 23, 225-236.	4.8	55
57	Dual 3D printing for vascularized bone tissue regeneration. Acta Biomaterialia, 2021, 123, 263-274.	8.3	53
58	3D Printed scaffolds with hierarchical biomimetic structure for osteochondral regeneration. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 19, 58-70.	3.3	49
59	4D Selfâ€Morphing Culture Substrate for Modulating Cell Differentiation. Advanced Science, 2020, 7, 1902403.	11.2	46
60	Engineering a Novel 3D Printed Vascularized Tissue Model for Investigating Breast Cancer Metastasis to Bone. Advanced Healthcare Materials, 2020, 9, e1900924.	7.6	45
61	Novel biologically-inspired rosette nanotube PLLA scaffolds for improving human mesenchymal stem cell chondrogenic differentiation. Biomedical Materials (Bristol), 2013, 8, 065003.	3.3	42
62	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
63	Advanced 4D-bioprinting technologies for brain tissue modeling and study. International Journal of Smart and Nano Materials, 2019, 10, 177-204.	4.2	40
64	4D anisotropic skeletal muscle tissue constructs fabricated by staircase effect strategy. Biofabrication, 2019, 11, 035030.	7.1	40
65	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
66	Aggregation State of Metal-Based Nanomaterials at the Pulmonary Surfactant Film Determines Biophysical Inhibition. Environmental Science & Technology, 2018, 52, 8920-8929.	10.0	38
67	Recent advances in bioprinting technologies for engineering cardiac tissue. Materials Science and Engineering C, 2021, 124, 112057.	7.3	35
68	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
69	Cold Atmospheric Plasma Modified Electrospun Scaffolds with Embedded Microspheres for Improved Cartilage Regeneration. PLoS ONE, 2015, 10, e0134729.	2.5	29
70	3D printing multiphasic osteochondral tissue constructs with nano to micro features via PCL based bioink. Bioprinting, 2020, 17, e00066.	5.8	29
71	Biophysical Assessment of Pulmonary Surfactant Predicts the Lung Toxicity of Nanomaterials. Small Methods, 2018, 2, 1700367.	8.6	28
72	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

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73	Touch-Spun Nanofibers for Nerve Regeneration. ACS Applied Materials & Interfaces, 2020, 12, 2067-2075.	8.0	27
74	Biomimetic biphasic 3â€Ð nanocomposite scaffold for osteochondral regeneration. AICHE Journal, 2014, 60, 432-442.	3.6	26
75	Recent advances in bioprinting technologies for engineering hepatic tissue. Materials Science and Engineering C, 2021, 123, 112013.	7.3	26
76	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
77	Integration of biological systems with electronic-mechanical assemblies. Acta Biomaterialia, 2019, 95, 91-111.	8.3	23
78	Integrating three-dimensional printing and nanotechnology for musculoskeletal regeneration. Nanotechnology, 2017, 28, 382001.	2.6	22
79	Integrating cold atmospheric plasma with 3D printed bioactive nanocomposite scaffold for cartilage regeneration. Materials Science and Engineering C, 2020, 111, 110844.	7.3	22
80	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
81	Three-Dimensional Printing: A Catalyst for a Changing Orthopaedic Landscape. JBJS Reviews, 2020, 8, e0076-e0076.	2.0	18
82	How can 3D printing be a powerful tool in nanomedicine?. Nanomedicine, 2018, 13, 251-253.	3.3	15
83	Simulated Body Fluid Nucleation of Three-Dimensional Printed Elastomeric Scaffolds for Enhanced Osteogenesis. Tissue Engineering - Part A, 2016, 22, 940-948.	3.1	14
84	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
85	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
86	Enhanced human bone marrow mesenchymal stem cell functions on cathodic arc plasma-treated titanium. International Journal of Nanomedicine, 2015, 10, 7385.	6.7	8
87	Biomaterials and 3D Printing Techniques for Neural Tissue Regeneration. , 2016, , 1-24.		6
88	Nanobiotechnology and Nanostructured Therapeutic Delivery Systems. Recent Patents on Biomedical Engineering, 2012, 5, 29-40.	0.5	5
89	Nanotechnology and 3D/4D Bioprinting for Neural Tissue Regeneration. , 2022, , 427-458.		4
90	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

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91	Acoustic Droplet Vaporization of Perfluorocarbon Droplets in 3D-Printable Gelatin Methacrylate Scaffolds. Ultrasound in Medicine and Biology, 2021, 47, 3263-3274.	1.5	2
92	Nanotechnology: A Toolkit for Cell Behavior. , 2015, , 1-24.		1
93	Nanotechnology: A Toolkit for Cell Behavior. , 2015, , 3-32.		0