

# Lijie Grace Zhang

## List of Publications by Citations

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93  
papers

4,978  
citations

44  
h-index

69  
g-index

94  
ext. papers

5,958  
ext. citations

7.3  
avg, IF

6.12  
L-index

#	Paper	IF	Citations
93	3D Bioprinting for Organ Regeneration. <i>Advanced Healthcare Materials</i> , <b>2017</b> , 6, 1601118	10.1	254
92	4D printing smart biomedical scaffolds with novel soybean oil epoxidized acrylate. <i>Scientific Reports</i> , <b>2016</b> , 6, 27226	4.9	200
91	4D printing of polymeric materials for tissue and organ regeneration. <i>Materials Today</i> , <b>2017</b> , 20, 577-591	12.8	200
90	3D Bioprinting a Cell-Laden Bone Matrix for Breast Cancer Metastasis Study. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 30017-30026	9.5	176
89	Integrating biologically inspired nanomaterials and table-top stereolithography for 3D printed biomimetic osteochondral scaffolds. <i>Nanoscale</i> , <b>2015</b> , 7, 14010-22	7.7	151
88	Three-dimensional printing of nanomaterial scaffolds for complex tissue regeneration. <i>Tissue Engineering - Part B: Reviews</i> , <b>2015</b> , 21, 103-14	7.9	144
87	Cold atmospheric plasma for selectively ablating metastatic breast cancer cells. <i>PLoS ONE</i> , <b>2013</b> , 8, e73747	3.7	140
86	3D printed nanocomposite matrix for the study of breast cancer bone metastasis. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2016</b> , 12, 69-79	6	131
85	3D printing nano conductive multi-walled carbon nanotube scaffolds for nerve regeneration. <i>Journal of Neural Engineering</i> , <b>2018</b> , 15, 016018	5	129
84	Hierarchical Fabrication of Engineered Vascularized Bone Biphasic Constructs via Dual 3D Bioprinting: Integrating Regional Bioactive Factors into Architectural Design. <i>Advanced Healthcare Materials</i> , <b>2016</b> , 5, 2174-81	10.1	122
83	3D bioprinted graphene oxide-incorporated matrix for promoting chondrogenic differentiation of human bone marrow mesenchymal stem cells. <i>Carbon</i> , <b>2017</b> , 116, 615-624	10.4	109
82	A synergistic approach to the design, fabrication and evaluation of 3D printed micro and nano featured scaffolds for vascularized bone tissue repair. <i>Nanotechnology</i> , <b>2016</b> , 27, 064001	3.4	106
81	Fabrication of a Highly Aligned Neural Scaffold via a Table Top Stereolithography 3D Printing and Electrospinning. <i>Tissue Engineering - Part A</i> , <b>2017</b> , 23, 491-502	3.9	101
80	Development of 3D printable conductive hydrogel with crystallized PEDOT:PSS for neural tissue engineering. <i>Materials Science and Engineering C</i> , <b>2019</b> , 99, 582-590	8.3	99
79	3D bioprinting mesenchymal stem cell-laden construct with core-shell nanospheres for cartilage tissue engineering. <i>Nanotechnology</i> , <b>2018</b> , 29, 185101	3.4	92
78	Four-Dimensional Printing Hierarchy Scaffolds with Highly Biocompatible Smart Polymers for Tissue Engineering Applications. <i>Tissue Engineering - Part C: Methods</i> , <b>2016</b> , 22, 952-963	2.9	90
77	Biologically Inspired Smart Release System Based on 3D Bioprinted Perfused Scaffold for Vascularized Tissue Regeneration. <i>Advanced Science</i> , <b>2016</b> , 3, 1600058	13.6	90

76	Highly aligned nanocomposite scaffolds by electrospinning and electrospraying for neural tissue regeneration. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2015</b> , 11, 693-704	6	88
75	3D nano/microfabrication techniques and nanobiomaterials for neural tissue regeneration. <i>Nanomedicine</i> , <b>2014</b> , 9, 859-75	5.6	88
74	Biomimetic three-dimensional nanocrystalline hydroxyapatite and magnetically synthesized single-walled carbon nanotube chitosan nanocomposite for bone regeneration. <i>International Journal of Nanomedicine</i> , <b>2012</b> , 7, 2087-99	7.3	82
73	Enhanced bone tissue regeneration using a 3D printed microstructure incorporated with a hybrid nano hydrogel. <i>Nanoscale</i> , <b>2017</b> , 9, 5055-5062	7.7	81
72	Recent progress in interfacial tissue engineering approaches for osteochondral defects. <i>Annals of Biomedical Engineering</i> , <b>2012</b> , 40, 1628-40	4.7	77
71	3D bioprinting for cardiovascular regeneration and pharmacology. <i>Advanced Drug Delivery Reviews</i> , <b>2018</b> , 132, 252-269	18.5	76
70	Improved Human Bone Marrow Mesenchymal Stem Cell Osteogenesis in 3D Bioprinted Tissue Scaffolds with Low Intensity Pulsed Ultrasound Stimulation. <i>Scientific Reports</i> , <b>2016</b> , 6, 32876	4.9	73
69	Stereolithographic 4D Bioprinting of Multiresponsive Architectures for Neural Engineering. <i>Advanced Biology</i> , <b>2018</b> , 2, 1800101	3.5	73
68	Three-Dimensional-Bioprinted Dopamine-Based Matrix for Promoting Neural Regeneration. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 8993-9001	9.5	72
67	Development of novel three-dimensional printed scaffolds for osteochondral regeneration. <i>Tissue Engineering - Part A</i> , <b>2015</b> , 21, 403-15	3.9	70
66	Design of biomimetic and bioactive cold plasma-modified nanostructured scaffolds for enhanced osteogenic differentiation of bone marrow-derived mesenchymal stem cells. <i>Tissue Engineering - Part A</i> , <b>2014</b> , 20, 1060-71	3.9	64
65	Enhanced neural stem cell functions in conductive annealed carbon nanofibrous scaffolds with electrical stimulation. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2018</b> , 14, 2485-2494	6	64
64	Titanium dental implants surface-immobilized with gold nanoparticles as osteoinductive agents for rapid osseointegration. <i>Journal of Colloid and Interface Science</i> , <b>2016</b> , 469, 129-137	9.3	63
63	Enhanced human bone marrow mesenchymal stem cell chondrogenic differentiation in electrospun constructs with carbon nanomaterials. <i>Carbon</i> , <b>2016</b> , 97, 1-13	10.4	61
62	Engineering a biomimetic three-dimensional nanostructured bone model for breast cancer bone metastasis study. <i>Acta Biomaterialia</i> , <b>2015</b> , 14, 164-74	10.8	60
61	Photolithographic-stereolithographic-tandem fabrication of 4D smart scaffolds for improved stem cell cardiomyogenic differentiation. <i>Biofabrication</i> , <b>2018</b> , 10, 035007	10.5	57
60	Design of a Novel 3D Printed Bioactive Nanocomposite Scaffold for Improved Osteochondral Regeneration. <i>Cellular and Molecular Bioengineering</i> , <b>2015</b> , 8, 416-432	3.9	56
59	Multifunctional hydrogel coatings on the surface of neural cuff electrode for improving electrode-nerve tissue interfaces. <i>Acta Biomaterialia</i> , <b>2016</b> , 39, 25-33	10.8	55

58	3D printing of novel osteochondral scaffolds with graded microstructure. <i>Nanotechnology</i> , <b>2016</b> , 27, 414001	3-4	54
57	Enhanced human bone marrow mesenchymal stem cell functions in novel 3D cartilage scaffolds with hydrogen treated multi-walled carbon nanotubes. <i>Nanotechnology</i> , <b>2013</b> , 24, 365102	3-4	53
56	Development of Novel 3-D Printed Scaffolds With Core-Shell Nanoparticles for Nerve Regeneration. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2017</b> , 64, 408-418	5	52
55	4D physiologically adaptable cardiac patch: A 4-month in vivo study for the treatment of myocardial infarction. <i>Science Advances</i> , <b>2020</b> , 6, eabb5067	14-3	52
54	Electrospun fibrous scaffolds for bone and cartilage tissue generation: recent progress and future developments. <i>Tissue Engineering - Part B: Reviews</i> , <b>2012</b> , 18, 478-86	7-9	52
53	Synergistic Effect of Cold Atmospheric Plasma and Drug Loaded Core-shell Nanoparticles on Inhibiting Breast Cancer Cell Growth. <i>Scientific Reports</i> , <b>2016</b> , 6, 21974	4-9	51
52	Recent advances in 3D printing: vascular network for tissue and organ regeneration. <i>Translational Research</i> , <b>2019</b> , 211, 46-63	11	50
51	Advances in 3D Bioprinting for Neural Tissue Engineering. <i>Advanced Biology</i> , <b>2018</b> , 2, 1700213	3-5	50
50	A 3D printed nano bone matrix for characterization of breast cancer cell and osteoblast interactions. <i>Nanotechnology</i> , <b>2016</b> , 27, 315103	3-4	46
49	In vitro and in vivo evaluation of 3D bioprinted small-diameter vasculature with smooth muscle and endothelium. <i>Biofabrication</i> , <b>2019</b> , 12, 015004	10-5	44
48	Bio-Based Polymers for 3D Printing of Bioscaffolds. <i>Polymer Reviews</i> , <b>2018</b> , 58, 668-687	14	43
47	3D printing scaffold coupled with low level light therapy for neural tissue regeneration. <i>Biofabrication</i> , <b>2017</b> , 9, 025002	10-5	42
46	A novel near-infrared light responsive 4D printed nanoarchitecture with dynamically and remotely controllable transformation. <i>Nano Research</i> , <b>2019</b> , 12, 1381-1388	10	40
45	Three-Dimensional Printing Articular Cartilage: Recapitulating the Complexity of Native Tissue. <i>Tissue Engineering - Part B: Reviews</i> , <b>2017</b> , 23, 225-236	7-9	40
44	Novel biologically-inspired rosette nanotube PLLA scaffolds for improving human mesenchymal stem cell chondrogenic differentiation. <i>Biomedical Materials (Bristol)</i> , <b>2013</b> , 8, 065003	3-5	39
43	Greater osteoblast and mesenchymal stem cell adhesion and proliferation on titanium with hydrothermally treated nanocrystalline hydroxyapatite/magnetically treated carbon nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2012</b> , 12, 7692-702	1-3	38
42	Three-Dimensional Printing Biologically Inspired DNA-Based Gradient Scaffolds for Cartilage Tissue Regeneration. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 33219-33228	9-5	35
41	Gelatin methacrylamide hydrogel with graphene nanoplatelets for neural cell-laden 3D bioprinting. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2016</b> , 2016, 4185-4188	0-9	35

40	3D Printed scaffolds with hierarchical biomimetic structure for osteochondral regeneration. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2019</b> , 19, 58-70	6	31
39	4D printing soft robotics for biomedical applications. <i>Additive Manufacturing</i> , <b>2020</b> , 36, 101567	6.1	30
38	4D anisotropic skeletal muscle tissue constructs fabricated by staircase effect strategy. <i>Biofabrication</i> , <b>2019</b> , 11, 035030	10.5	26
37	Lipid Coated Microbubbles and Low Intensity Pulsed Ultrasound Enhance Chondrogenesis of Human Mesenchymal Stem Cells in 3D Printed Scaffolds. <i>Scientific Reports</i> , <b>2016</b> , 6, 37728	4.9	26
36	Aggregation State of Metal-Based Nanomaterials at the Pulmonary Surfactant Film Determines Biophysical Inhibition. <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 8920-8929	10.3	26
35	Biomimetic biphasic 3-D nanocomposite scaffold for osteochondral regeneration. <i>AIChE Journal</i> , <b>2014</b> , 60, 432-442	3.6	25
34	Engineering a Novel 3D Printed Vascularized Tissue Model for Investigating Breast Cancer Metastasis to Bone. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1900924	10.1	25
33	4D Self-Morphing Culture Substrate for Modulating Cell Differentiation. <i>Advanced Science</i> , <b>2020</b> , 7, 1902408	4.9	24
32	Cold Atmospheric Plasma Modified Electrospun Scaffolds with Embedded Microspheres for Improved Cartilage Regeneration. <i>PLoS ONE</i> , <b>2015</b> , 10, e0134729	3.7	24
31	Advanced 4D Bioprinting Technologies for Brain Tissue Modeling and Study. <i>International Journal of Smart and Nano Materials</i> , <b>2019</b> , 10, 177-204	3.6	23
30	3D Bioprinting-Tunable Small-Diameter Blood Vessels with Biomimetic Biphasic Cell Layers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 45904-45915	9.5	23
29	Directly Induced Neural Differentiation of Human Adipose-Derived Stem Cells Using Three-Dimensional Culture System of Conductive Microwell with Electrical Stimulation. <i>Tissue Engineering - Part A</i> , <b>2018</b> , 24, 537-545	3.9	23
28	Touch-Spun Nanofibers for Nerve Regeneration. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 2067-2075	3.7	21
27	4D Printed Cardiac Construct with Aligned Myofibers and Adjustable Curvature for Myocardial Regeneration. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 12746-12758	9.5	21
26	Integrating three-dimensional printing and nanotechnology for musculoskeletal regeneration. <i>Nanotechnology</i> , <b>2017</b> , 28, 382001	3.4	19
25	Biophysical Assessment of Pulmonary Surfactant Predicts the Lung Toxicity of Nanomaterials. <i>Small Methods</i> , <b>2018</b> , 2, 1700367	12.8	18
24	Integration of biological systems with electronic-mechanical assemblies. <i>Acta Biomaterialia</i> , <b>2019</b> , 95, 91-111	10.8	16
23	3D printing multiphasic osteochondral tissue constructs with nano to micro features via PCL based bioink. <i>Bioprinting</i> , <b>2020</b> , 17, e00066	7	15

22	Single-step synthesis of carbon encapsulated magnetic nanoparticles in arc plasma and potential biomedical applications. <i>Journal of Colloid and Interface Science</i> , <b>2018</b> , 509, 414-421	9.3	14
21	Recent advances in bioprinting technologies for engineering cardiac tissue. <i>Materials Science and Engineering C</i> , <b>2021</b> , 124, 112057	8.3	14
20	Integrating cold atmospheric plasma with 3D printed bioactive nanocomposite scaffold for cartilage regeneration. <i>Materials Science and Engineering C</i> , <b>2020</b> , 111, 110844	8.3	12
19	Simulated Body Fluid Nucleation of Three-Dimensional Printed Elastomeric Scaffolds for Enhanced Osteogenesis. <i>Tissue Engineering - Part A</i> , <b>2016</b> , 22, 940-8	3.9	11
18	3D printing novel in vitro cancer cell culture model systems for lung cancer stem cell study. <i>Materials Science and Engineering C</i> , <b>2021</b> , 122, 111914	8.3	11
17	Dual 3D printing for vascularized bone tissue regeneration. <i>Acta Biomaterialia</i> , <b>2021</b> , 123, 263-274	10.8	11
16	Three-Dimensional Printing: A Catalyst for a Changing Orthopaedic Landscape. <i>JBJS Reviews</i> , <b>2020</b> , 8, e0076	2.6	10
15	How can 3D printing be a powerful tool in nanomedicine?. <i>Nanomedicine</i> , <b>2018</b> , 13, 251-253	5.6	10
14	Enhanced Osteogenic Differentiation of Human Mesenchymal Stem Cells Using Microbubbles and Low Intensity Pulsed Ultrasound on 3D Printed Scaffolds. <i>Advanced Biology</i> , <b>2019</b> , 3, e1800257	3.5	10
13	4D printing in biomedical applications: emerging trends and technologies. <i>Journal of Materials Chemistry B</i> , <b>2021</b> , 9, 7608-7632	7.3	10
12	Enhanced human bone marrow mesenchymal stem cell functions on cathodic arc plasma-treated titanium. <i>International Journal of Nanomedicine</i> , <b>2015</b> , 10, 7385-96	7.3	8
11	Inhibition of Human Breast Cancer Cell Proliferation by Low-Intensity Ultrasound Stimulation. <i>Journal of Ultrasound in Medicine</i> , <b>2020</b> , 39, 2043-2052	2.9	6
10	Nanobiotechnology and Nanostructured Therapeutic Delivery Systems. <i>Recent Patents on Biomedical Engineering</i> , <b>2012</b> , 5, 29-40		5
9	Biomaterials and 3D Printing Techniques for Neural Tissue Regeneration <b>2016</b> , 1-24		5
8	Emerging 4D printing strategies for next-generation tissue regeneration and medical devices.. <i>Advanced Materials</i> , <b>2021</b> , e2109198	24	5
7	Recent advances in bioprinting technologies for engineering hepatic tissue. <i>Materials Science and Engineering C</i> , <b>2021</b> , 123, 112013	8.3	4
6	Enhanced Human Bone Marrow Mesenchymal Stem Cell Chondrogenic Differentiation on Cold Atmospheric Plasma Modified Cartilage Scaffold. <i>Materials Research Society Symposia Proceedings</i> , <b>2014</b> , 1723, 1		3
5	Nanotechnology: A Toolkit for Cell Behavior <b>2015</b> , 1-24		1

- 4 Acoustic Droplet Vaporization of Perfluorocarbon Droplets in 3D-Printable Gelatin Methacrylate Scaffolds. *Ultrasound in Medicine and Biology*, **2021**, 47, 3263-3274 3.5 ○
- 3 Nanotechnology and 3D/4D Bioprinting for Neural Tissue Regeneration **2022**, 427-458 ○
- 2 An in vitro analysis of the effect of geometry-induced flows on endothelial cell behavior in 3D printed small-diameter blood vessels **2022**, 212832 ○
- 1 Nanotechnology: A Toolkit for Cell Behavior **2015**, 3-32