Se-Jun Lee

List of Publications by Year
in descending order

73 papers	5,088 citations	71102 41 h-index	88630 70 g-index
75 all docs	75 docs citations	75 times ranked	6049 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 printing nano conductive multi-walled carbon nanotube scaffolds for nerve regeneration. Journal of Neural Engineering, 2018, 15, 016018.	3.5	176
5	Integrating biologically inspired nanomaterials and table-top stereolithography for 3D printed biomimetic osteochondral scaffolds. Nanoscale, 2015, 7, 14010-14022.	5.6	172
6	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
7	3D printed nanocomposite matrix for the study of breast cancer bone metastasis. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 69-79.	3.3	162
8	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
9	3D bioprinting mesenchymal stem cell-laden construct with coreâ€“shell nanospheres for cartilage tissue engineering. Nanotechnology, 2018, 29, 185101.	2.6	134
10	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
11	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
12	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
13	3D bioprinting for cardiovascular regeneration and pharmacology. Advanced Drug Delivery Reviews, 2018, 132, 252-269.	13.7	115
14	Stereolithographic 4D Bioprinting of Multiresponsive Architectures for Neural Engineering. Advanced Biology, 2018, 2, 1800101.	3.0	114
15	Highly aligned nanocomposite scaffolds by electrospinning and electrospraying for neural tissue regeneration. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 693-704.	3.3	108
16	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
17	Photolithographic-stereolithographic-tandem fabrication of 4D smart scaffolds for improved stem cell cardiomyogenic differentiation. Biofabrication, 2018, 10, 035007.	7.1	92
18	Recent advances in 3D printing: vascular network for tissue and organ regeneration. Translational Research, 2019, 211, 46-63.	5.0	92

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19	<i>In vitro</i>and<i>in vivo</i>evaluation of 3D bioprinted small-diameter vasculature with smooth muscle and endothelium. Biofabrication, 2020, 12, 015004.	7.1	90
20	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
21	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
22	A novel near-infrared light responsive 4D printed nanoarchitecture with dynamically and remotely controllable transformation. Nano Research, 2019, 12, 1381-1388.	10.4	82
23	4D Printed Cardiac Construct with Aligned Myofibers and Adjustable Curvature for Myocardial Regeneration. ACS Applied Materials & Interfaces, 2021, 13, 12746-12758.	8.0	82
24	4D printing soft robotics for biomedical applications. Additive Manufacturing, 2020, 36, 101567.	3.0	73
25	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
26	Engineering a biomimetic three-dimensional nanostructured bone model for breast cancer bone metastasis study. Acta Biomaterialia, 2015, 14, 164-174.	8.3	70
27	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
28	3D Bioprinting-Tunable Small-Diameter Blood Vessels with Biomimetic Biphasic Cell Layers. ACS Applied Materials & Interfaces, 2020, 12, 45904-45915.	8.0	70
29	Advances in 3D Bioprinting for Neural Tissue Engineering. Advanced Biology, 2018, 2, 1700213.	3.0	69
30	3D printing scaffold coupled with low level light therapy for neural tissue regeneration. Biofabrication, 2017, 9, 025002.	7.1	68
31	Bio-Based Polymers for 3D Printing of Bioscaffolds. Polymer Reviews, 2018, 58, 668-687.	10.9	67
32	Design of a Novel 3D Printed Bioactive Nanocomposite Scaffold for Improved Osteochondral Regeneration. Cellular and Molecular Bioengineering, 2015, 8, 416-432.	2.1	66
33	4D printing in biomedical applications: emerging trends and technologies. Journal of Materials Chemistry B, 2021, 9, 7608-7632.	5.8	65
34	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
35	Emerging 4D Printing Strategies for Nextâ€Generation Tissue Regeneration and Medical Devices. Advanced Materials, 2022, 34, e2109198.	21.0	57
36	The Strong Cell-based Hydrogen Peroxide Generation Triggered by Cold Atmospheric Plasma. Scientific Reports, 2017, 7, 10831.	3.3	56

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37	Three-Dimensional Printing Articular Cartilage: Recapitulating the Complexity of Native Tissue<sup />. Tissue Engineering - Part B: Reviews, 2017, 23, 225-236.	4.8	55
38	Dual 3D printing for vascularized bone tissue regeneration. Acta Biomaterialia, 2021, 123, 263-274.	8.3	53
39	3D Printed scaffolds with hierarchical biomimetic structure for osteochondral regeneration. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 19, 58-70.	3.3	49
40	4D Selfâ€Morphing Culture Substrate for Modulating Cell Differentiation. Advanced Science, 2020, 7, 1902403.	11.2	46
41	Effects of scaffold microstructure and low intensity pulsed ultrasound on chondrogenic differentiation of human mesenchymal stem cells. Biotechnology and Bioengineering, 2018, 115, 495-506.	3.3	45
42	Engineering a Novel 3D Printed Vascularized Tissue Model for Investigating Breast Cancer Metastasis to Bone. Advanced Healthcare Materials, 2020, 9, e1900924.	7.6	45
43	Advanced 4D-bioprinting technologies for brain tissue modeling and study. International Journal of Smart and Nano Materials, 2019, 10, 177-204.	4.2	40
44	4D anisotropic skeletal muscle tissue constructs fabricated by staircase effect strategy. Biofabrication, 2019, 11, 035030.	7.1	40
45	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
46	Aggregation State of Metal-Based Nanomaterials at the Pulmonary Surfactant Film Determines Biophysical Inhibition. Environmental Science & Technology, 2018, 52, 8920-8929.	10.0	38
47	Recent advances in bioprinting technologies for engineering cardiac tissue. Materials Science and Engineering C, 2021, 124, 112057.	7.3	35
48	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
49	Cold Atmospheric Plasma Modified Electrospun Scaffolds with Embedded Microspheres for Improved Cartilage Regeneration. PLoS ONE, 2015, 10, e0134729.	2.5	29
50	Biophysical Assessment of Pulmonary Surfactant Predicts the Lung Toxicity of Nanomaterials. Small Methods, 2018, 2, 1700367.	8.6	28
51	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
52	Biomimetic biphasic 3â€Ð nanocomposite scaffold for osteochondral regeneration. AIChE Journal, 2014, 60, 432-442.	3.6	26
53	Recent advances in bioprinting technologies for engineering hepatic tissue. Materials Science and Engineering C, 2021, 123, 112013.	7.3	26
54	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

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55	Integration of biological systems with electronic-mechanical assemblies. Acta Biomaterialia, 2019, 95, 91-111.	8.3	23
56	Integrating three-dimensional printing and nanotechnology for musculoskeletal regeneration. Nanotechnology, 2017, 28, 382001.	2.6	22
57	Integrating cold atmospheric plasma with 3D printed bioactive nanocomposite scaffold for cartilage regeneration. Materials Science and Engineering C, 2020, 111, 110844.	7.3	22
58	Acoustic and mechanical characterization of 3D-printed scaffolds for tissue engineering applications. Biomedical Materials (Bristol), 2018, 13, 055013.	3.3	20
59	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
60	How can 3D printing be a powerful tool in nanomedicine?. Nanomedicine, 2018, 13, 251-253.	3.3	15
61	Enhanced neuronal differentiation of neural stem cells with mechanically enhanced touch-spun nanofibrous scaffolds. Nanomedicine: Nanotechnology, Biology, and Medicine, 2020, 24, 102152.	3.3	15
62	Simulated Body Fluid Nucleation of Three-Dimensional Printed Elastomeric Scaffolds for Enhanced Osteogenesis. Tissue Engineering - Part A, 2016, 22, 940-948.	3.1	14
63	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
64	Enhanced human bone marrow mesenchymal stem cell functions on cathodic arc plasma-treated titanium. International Journal of Nanomedicine, 2015, 10, 7385.	6.7	8
65	Development of a Novel 3D Bioprinted In Vitro Nano Bone Model for Breast Cancer Bone Metastasis Study. Materials Research Society Symposia Proceedings, 2014, 1724, 1.	0.1	5
66	Nanotechnology and 3D/4D Bioprinting for Neural Tissue Regeneration. , 2022, , 427-458.		4
67	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
68	Acoustic Droplet Vaporization of Perfluorocarbon Droplets in 3D-Printable Gelatin Methacrylate Scaffolds. Ultrasound in Medicine and Biology, 2021, 47, 3263-3274.	1.5	2
69	Novel Biologically Inspired Nanostructured Scaffolds for Directing Chondrogenic Differentiation of Mesenchymal Stem Cells. Materials Research Society Symposia Proceedings, 2013, 1498, 59-66.	0.1	1
70	Enhanced osteoblast adhesion on novel biomimetic nanotube/nanoparticle coating for orthopedic applications. , 2012, , .		0
71	Design a Biologically Inspired Nanostructured Coating for Better Osseointegration. Materials Research Society Symposia Proceedings, 2012, 1418, 111.	0.1	0
72	3D Bioprinting: Biologically Inspired Smart Release System Based on 3D Bioprinted Perfused Scaffold for Vascularized Tissue Regeneration (Adv. Sci. 8/2016). Advanced Science, 2016, 3, .	11.2	0

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73	Nanotechnology: A Toolkit for Cell Behavior. , 2015, , 3-32.		0