Song Li

List of Publications by Year
in descending order

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104 papers	8,428 citations	57758 44 h-index	46799 89 g-index
108 all docs	108 docs citations	108 times ranked	11655 citing authors

#	Article	IF	Citations
1	The effect of matrix stiffness on the differentiation of mesenchymal stem cells in response to TGF-Î². Biomaterials, 2011, 32, 3921-3930.	11.4	641
2	Nanoparticle delivery of Cas9 ribonucleoprotein and donor DNA in vivo induces homology-directed DNA repair. Nature Biomedical Engineering, 2017, 1, 889-901.	22.5	566
3	Biophysical regulation of epigenetic state and cell reprogramming. Nature Materials, 2013, 12, 1154-1162.	27.5	437
4	Fluid Shear Stress Activation of Focal Adhesion Kinase. Journal of Biological Chemistry, 1997, 272, 30455-30462.	3.4	379
5	Antithrombogenic property of bone marrow mesenchymal stem cells in nanofibrous vascular grafts. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11915-11920.	7.1	360
6	Bioactive Nanofibers:Â Synergistic Effects of Nanotopography and Chemical Signaling on Cell Guidance. Nano Letters, 2007, 7, 2122-2128.	9.1	339
7	Myotube Assembly on Nanofibrous and Micropatterned Polymers. Nano Letters, 2006, 6, 537-542.	9.1	293
8	Differentiation of multipotent vascular stem cells contributes to vascular diseases. Nature Communications, 2012, 3, 875.	12.8	249
9	Proteomic Profiling of Bone Marrow Mesenchymal Stem Cells upon Transforming Growth Factor Î²1 Stimulation. Journal of Biological Chemistry, 2004, 279, 43725-43734.	3.4	215
10	Induced pluripotent stem cells for neural tissue engineering. Biomaterials, 2011, 32, 5023-5032.	11.4	214
11	An engineered cell-laden adhesive hydrogel promotes craniofacial bone tissue regeneration in rats. Science Translational Medicine, 2020, 12, .	12.4	199
12	Injectable Biopolymers Enhance Angiogenesis after Myocardial Infarction. Tissue Engineering, 2005, 11, 1860-1866.	4.6	181
13	Biodegradable Gelatin Methacryloyl Microneedles for Transdermal Drug Delivery. Advanced Healthcare Materials, 2019, 8, e1801054.	7.6	177
14	Cell-Shape Regulation of Smooth Muscle Cell Proliferation. Biophysical Journal, 2009, 96, 3423-3432.	0.5	175
15	Giant magnetoelastic effect in soft systems for bioelectronics. Nature Materials, 2021, 20, 1670-1676.	27.5	175
16	The effect of fiber alignment and heparin coating on cell infiltration into nanofibrous PLLA scaffolds. Biomaterials, 2010, 31, 3536-3542.	11.4	152
17	Soft fibers with magnetoelasticity for wearable electronics. Nature Communications, 2021, 12, 6755.	12.8	150
18	Biophysical Regulation of Histone Acetylation in Mesenchymal Stem Cells. Biophysical Journal, 2011, 100, 1902-1909.	0.5	148

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19	The effect of stromal cell-derived factor-1Î±/heparin coating of biodegradable vascular grafts on the recruitment of both endothelial and smooth muscle progenitor cells for accelerated regeneration. Biomaterials, 2012, 33, 8062-8074.	11.4	147
20	Stretchable, dynamic covalent polymers for soft, long-lived bioresorbable electronic stimulators designed to facilitate neuromuscular regeneration. Nature Communications, 2020, 11, 5990.	12.8	144
21	Vascular tissue engineering: from in vitro to in situ. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2014, 6, 61-76.	6.6	135
22	Bioorthogonal catalytic patch. Nature Nanotechnology, 2021, 16, 933-941.	31.5	130
23	Induced Pluripotent Stem Cells for Regenerative Medicine. Annual Review of Biomedical Engineering, 2014, 16, 277-294.	12.3	123
24	Femtosecond laser ablation enhances cell infiltration into three-dimensional electrospun scaffolds. Acta Biomaterialia, 2012, 8, 2648-2658.	8.3	118
25	Nonthrombogenic Approaches to Cardiovascular Bioengineering. Annual Review of Biomedical Engineering, 2011, 13, 451-475.	12.3	105
26	Hierarchically Patterned Polydopamine-Containing Membranes for Periodontal Tissue Engineering. ACS Nano, 2019, 13, 3830-3838.	14.6	105
27	Antithrombogenic Modification of Small-Diameter Microfibrous Vascular Grafts. Arteriosclerosis, Thrombosis, and Vascular Biology, 2010, 30, 1621-1627.	2.4	104
28	Biomimetic gradient scaffold from ice-templating for self-seeding of cells with capillary effect. Acta Biomaterialia, 2015, 20, 113-119.	8.3	101
29	Measurement of Orientation and Distribution of Cellular Alignment and Cytoskeletal Organization. Annals of Biomedical Engineering, 1999, 27, 712-720.	2.5	93
30	Human iPSC-Derived Neural Crest Stem Cells Promote Tendon Repair in a Rat Patellar Tendon Window Defect Model. Tissue Engineering - Part A, 2013, 19, 2439-2451.	3.1	85
31	Engineering Bi-Layer Nanofibrous Conduits for Peripheral Nerve Regeneration. Tissue Engineering - Part C: Methods, 2011, 17, 705-715.	2.1	81
32	End-point immobilization of heparin on plasma-treated surface of electrospun polycarbonate-urethane vascular graft. Acta Biomaterialia, 2017, 51, 138-147.	8.3	79
33	Human induced pluripotent stem cell-derived neural crest stem cells integrate into the injured spinal cord in the fetal lamb model of myelomeningocele. Journal of Pediatric Surgery, 2013, 48, 158-163.	1.6	76
34	Unidirectional mechanical cellular stimuli via micropost array gradients. Soft Matter, 2011, 7, 4606.	2.7	68
35	Effect of biophysical cues on reprogramming to cardiomyocytes. Biomaterials, 2016, 103, 1-11.	11.4	62
36	T-cell activation is modulated by the 3D mechanical microenvironment. Biomaterials, 2020, 252, 120058.	11.4	60

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37	Electrospun bilayer fibrous scaffolds for enhanced cell infiltration and vascularization in vivo. Acta Biomaterialia, 2015, 13, 131-141.	8.3	59
38	Giant Magnetoelastic Effect Enabled Stretchable Sensor for Self-Powered Biomonitoring. ACS Nano, 2022, 16, 6013-6022.	14.6	59
39	Injectable Drugâ€Releasing Microporous Annealed Particle Scaffolds for Treating Myocardial Infarction. Advanced Functional Materials, 2020, 30, 2004307.	14.9	57
40	Unraveling the mechanobiology of immune cells. Current Opinion in Biotechnology, 2020, 66, 236-245.	6.6	55
41	Derivation of Smooth Muscle Cells with Neural Crest Origin from Human Induced Pluripotent Stem Cells. Cells Tissues Organs, 2012, 195, 5-14.	2.3	50
42	The Differentiation Stage of Transplanted Stem Cells Modulates Nerve Regeneration. Scientific Reports, 2017, 7, 17401.	3.3	50
43	Immunomodulatory microneedle patch for periodontal tissue regeneration. Matter, 2022, 5, 666-682.	10.0	49
44	Signal Transduction in Matrix Contraction and the Migration of Vascular Smooth Muscle Cells in Three-Dimensional Matrix. Journal of Vascular Research, 2003, 40, 378-388.	1.4	47
45	Growth inhibitory in vitro effects of glycyrrhizic acid in U251 glioblastoma cell line. Neurological Sciences, 2014, 35, 1115-1120.	1.9	44
46	Delivery of stromal cell-derived factor 1Î± for in situ tissue regeneration. Journal of Biological Engineering, 2017, 11, 22.	4.7	42
47	Cell engineering: Biophysical regulation of the nucleus. Biomaterials, 2020, 234, 119743.	11.4	39
48	Engineering Biomaterials with Micro/Nanotechnologies for Cell Reprogramming. ACS Nano, 2020, 14, 1296-1318.	14.6	39
49	Heparin-Modified Small-Diameter Nanofibrous Vascular Grafts. IEEE Transactions on Nanobioscience, 2012, 11, 22-27.	3.3	38
50	Contribution of Vascular Cells to Neointimal Formation. PLoS ONE, 2017, 12, e0168914.	2.5	38
51	Matrix stiffness regulates the interactions between endothelial cells and monocytes. Biomaterials, 2019, 221, 119362.	11.4	38
52	Glucose transporter inhibitor-conjugated insulin mitigates hypoglycemia. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10744-10748.	7.1	38
53	Matrix stiffness modulates the differentiation of neural crest stem cells in vivo. Journal of Cellular Physiology, 2019, 234, 7569-7578.	4.1	38
54	Engineering of aligned skeletal muscle by micropatterning. American Journal of Translational Research (discontinued), 2010, 2, 43-55.	0.0	38

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55	A rodent model of myocardial infarction for testing the efficacy of cells and polymers for myocardial reconstruction. Nature Protocols, 2006, 1, 1596-1609.	12.0	37
56	Adult Stem Cells in Vascular Remodeling. Theranostics, 2018, 8, 815-829.	10.0	37
57	Uniaxial Mechanical Strain Modulates the Differentiation of Neural Crest Stem Cells into Smooth Muscle Lineage on Micropatterned Surfaces. PLoS ONE, 2011, 6, e26029.	2.5	34
58	In vitro cardiomyocyte-driven biogenerator based on aligned piezoelectric nanofibers. Nanoscale, 2016, 8, 7278-7286.	5.6	32
59	Matrix stiffness regulates SMC functions via TGF-Î² signaling pathway. Biomaterials, 2019, 221, 119407.	11.4	32
60	Augmentation of T-Cell Activation by Oscillatory Forces and Engineered Antigen-Presenting Cells. Nano Letters, 2019, 19, 6945-6954.	9.1	32
61	Application of lung microphysiological systems to COVID-19 modeling and drug discovery: a review. Bio-Design and Manufacturing, 2021, 4, 757-775.	7.7	29
62	Biophysical regulation of cell reprogramming. Current Opinion in Chemical Engineering, 2017, 15, 95-101.	7.8	26
63	Development of Injectable Amniotic Membrane Matrix for Postmyocardial Infarction Tissue Repair. Advanced Healthcare Materials, 2020, 9, e1900544.	7.6	25
64	Photodegradable Polyacrylamide Gels for Dynamic Control of Cell Functions. ACS Applied Materials & Interfaces, 2021, 13, 5929-5944.	8.0	24
65	Synovial stem cells and their responses to the porosity of microfibrous scaffold. Acta Biomaterialia, 2013, 9, 7264-7275.	8.3	23
66	Skeletal muscle regeneration via the chemical induction and expansion of myogenic stem cells in situ or in vitro. Nature Biomedical Engineering, 2021, 5, 864-879.	22.5	23
67	Biomaterial-based immunoengineering to fight COVID-19 and infectious diseases. Matter, 2021, 4, 1528-1554.	10.0	21
68	Neural crest-like stem cells for tissue regeneration. Stem Cells Translational Medicine, 2021, 10, 681-693.	3.3	20
69	Role of vicinal cysteine pairs in metalloid sensing by the ArsD As(III)-responsive repressor. Molecular Microbiology, 2001, 41, 687-696.	2.5	19
70	Sox10 ⁺ Cells Contribute to Vascular Development in Multiple Organsâ€"Brief Report. Arteriosclerosis, Thrombosis, and Vascular Biology, 2017, 37, 1727-1731.	2.4	19
71	Dynamic culture improves cell reprogramming efficiency. Biomaterials, 2016, 92, 36-45.	11.4	18
72	Mechanical regulation of histone modifications and cell plasticity. Current Opinion in Solid State and Materials Science, 2020, 24, 100872.	11.5	18

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73	Immunoengineering strategies to enhance vascularization and tissue regeneration. Advanced Drug Delivery Reviews, 2022, 184, 114233.	13.7	18
74	Cellular remodeling of fibrotic conduit as vascular graft. Biomaterials, 2021, 268, 120565.	11.4	16
75	Sox10+ adult stem cells contribute to biomaterial encapsulation and microvascularization. Scientific Reports, 2017, 7, 40295.	3.3	15
76	Combined Effects of Electric Stimulation and Microgrooves in Cardiac Tissueâ€onâ€aâ€Chip for Drug Screening. Small Methods, 2020, 4, 2000438.	8.6	15
77	Engineered Delivery of Dental Stemâ€Cellâ€Derived Extracellular Vesicles for Periodontal Tissue Regeneration. Advanced Healthcare Materials, 2022, 11, e2102593.	7.6	15
78	Roles of TGFÎ² and FGF signals during growth and differentiation of mouse lens epithelial cell in vitro. Scientific Reports, 2017, 7, 7274.	3.3	13
79	Multipotent vascular stem cells contribute to neurovascular regeneration of peripheral nerve. Stem Cell Research and Therapy, 2019, 10, 234.	5.5	12
80	Endothelial Cell Morphology Regulates Inflammatory Cells Through MicroRNA Transferred by Extracellular Vesicles. Frontiers in Bioengineering and Biotechnology, 2020, 8, 369.	4.1	12
81	Engineering stem cell therapeutics for cardiac repair. Journal of Molecular and Cellular Cardiology, 2022, 171, 56-68.	1.9	12
82	Comparison of plasma and chemical modifications of poly-L-lactide-co-caprolactone scaffolds for heparin conjugation. Biomedical Materials (Bristol), 2017, 12, 065004.	3.3	11
83	Neural crestâ€derived cells migrate from nerve to participate in Achilles tendon remodeling. Wound Repair and Regeneration, 2018, 26, 54-63.	3.0	10
84	Contribution of bone marrow-derived cells to in situ engineered tissue capsules in a rat model of chronic kidney disease. Biomaterials, 2019, 194, 47-56.	11.4	10
85	Nano-in-Micro Dual Delivery Platform for Chronic Wound Healing Applications. Micromachines, 2020, 11, 158.	2.9	10
86	Engineering organ-on-a-chip systems to model viral infections. Biofabrication, 2023, 15, 022001.	7.1	10
87	Loosely-packed dynamical structures with partially-melted surface being the key for thermophilic argonaute proteins achieving high DNA-cleavage activity. Nucleic Acids Research, 2022, 50, 7529-7544.	14.5	9
88	Multi-scale cellular engineering: From molecules to organ-on-a-chip. APL Bioengineering, 2020, 4, 010906.	6.2	8
89	Micro/nano materials regulate cell morphology and intercellular communication by extracellular vesicles. Acta Biomaterialia, 2021, 124, 130-138.	8.3	8
90	Intramuscular delivery of neural crest stem cell spheroids enhances neuromuscular regeneration after denervation injury. Stem Cell Research and Therapy, 2022, 13, 205.	5.5	8

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91	Expression and Cell Distribution of SENP3 in the Cerebral Cortex After Experimental Subarachnoid Hemorrhage in Rats: A Pilot Study. Cellular and Molecular Neurobiology, 2015, 35, 407-416.	3.3	7
92	Regeneration of a neoartery through a completely autologous acellular conduit in a minipig model: a pilot study. Journal of Translational Medicine, 2019, 17, 24.	4.4	7
93	Differentiation of Neural Crest Stem Cells in Response to Matrix Stiffness and TGF-Î²1 in Vascular Regeneration. Stem Cells and Development, 2020, 29, 249-256.	2.1	7
94	Asymmetric Cell Division of Fibroblasts is An Early Deterministic Step to Generate Elite Cells during Cell Reprogramming. Advanced Science, 2021, 8, 2003516.	11.2	7
95	Microtopography Attenuates Endothelial Cell Proliferation by Regulating MicroRNAs. Journal of Biomaterials and Nanobiotechnology, 2017, 08, 189-201.	0.5	7
96	The HIV-1 matrix protein p17 activates the transcription factors c-Myc and CREB in human B cells. New Microbiologica, 2010, 33, 13-24.	0.1	7
97	Three-dimensional Imaging Coupled with Topological Quantification Uncovers Retinal Vascular Plexuses Undergoing Obliteration. Theranostics, 2021, 11, 1162-1175.	10.0	6
98	Engineering the Composition of Microfibers to Enhance the Remodeling of a Cell-Free Vascular Graft. Nanomaterials, 2021, 11, 1613.	4.1	5
99	Augmenting T-cell responses to tumors by in situ nanomanufacturing. Materials Horizons, 2020, 7, 3028-3033.	12.2	3
100	Drug Delivery: Injectable Drugâ€Releasing Microporous Annealed Particle Scaffolds for Treating Myocardial Infarction (Adv. Funct. Mater. 43/2020). Advanced Functional Materials, 2020, 30, 2070289.	14.9	2
101	Substrate Stiffness Regulates Cholesterol Efflux in Smooth Muscle Cells. Frontiers in Cell and Developmental Biology, 2021, 9, 648715.	3.7	2
102	End-Point Immobilization of Heparin on Electrospun Polycarbonate-Urethane Vascular Graft. Methods in Molecular Biology, 2022, 2375, 47-59.	0.9	2
103	Engineering Microenvironments to Control Stem Cell Functions. , 0, , 311-326.		0
104	The molecular dynamics of focal adhesion kinase in the mechanotaxis of endothelial cell migration. , 0, , .		0