Feng Zhao

List of Publications by Year
in descending order

55 papers	4,211 citations	186265 28 h-index	175258 52 g-index
55 all docs	55 docs citations	55 times ranked	6512 citing authors

#	Article	IF	Citations
1	Hypoxia enhances proliferation and tissue formation of human mesenchymal stem cells. Biochemical and Biophysical Research Communications, 2007, 358, 948-953.	2.1	444
2	Effects of hypoxia on human mesenchymal stem cell expansion and plasticity in 3D constructs. Journal of Cellular Physiology, 2006, 207, 331-339.	4.1	374
3	Increasing Mechanical Strength of Gelatin Hydrogels by Divalent Metal Ion Removal. Scientific Reports, 2014, 4, 4706.	3.3	340
4	Biodegradable Metals for Cardiovascular Stents: from Clinical Concerns to Recent Znâ€Alloys. Advanced Healthcare Materials, 2016, 5, 1121-1140.	7.6	326
5	Perfusion bioreactor system for human mesenchymal stem cell tissue engineering: Dynamic cell seeding and construct development. Biotechnology and Bioengineering, 2005, 91, 482-493.	3.3	227
6	Effects of hydroxyapatite in 3-D chitosanâ€“gelatin polymer network on human mesenchymal stem cell construct development. Biomaterials, 2006, 27, 1859-1867.	11.4	220
7	Metallic zinc exhibits optimal biocompatibility for bioabsorbable endovascular stents. Materials Science and Engineering C, 2015, 56, 467-472.	7.3	192
8	Effects of shear stress on 3-D human mesenchymal stem cell construct development in a perfusion bioreactor system: Experiments and hydrodynamic modeling. Biotechnology and Bioengineering, 2007, 96, 584-595.	3.3	187
9	Tissue Engineering at the Bloodâ€Contacting Surface: A Review of Challenges and Strategies in Vascular Graft Development. Advanced Healthcare Materials, 2018, 7, e1701461.	7.6	178
10	Decellularization of Fibroblast Cell Sheets for Natural Extracellular Matrix Scaffold Preparation. Tissue Engineering - Part C: Methods, 2015, 21, 77-87.	2.1	153
11	In Vitro Cytotoxicity, Adhesion, and Proliferation of Human Vascular Cells Exposed to Zinc. ACS Biomaterials Science and Engineering, 2016, 2, 634-642.	5.2	136
12	A Moldable Nanocomposite Hydrogel Composed of a Musselâ€Inspired Polymer and a Nanosilicate as a Fitâ€toâ€Shape Tissue Sealant. Angewandte Chemie - International Edition, 2017, 56, 4224-4228.	13.8	134
13	Effects of Oxygen Transport on 3-D Human Mesenchymal Stem Cell Metabolic Activity in Perfusion and Static Cultures: Experiments and Mathematical Model. Biotechnology Progress, 2008, 21, 1269-1280.	2.6	112
14	Pre-vascularization Enhances Therapeutic Effects of Human Mesenchymal Stem Cell Sheets in Full Thickness Skin Wound Repair. Theranostics, 2017, 7, 117-131.	10.0	100
15	Porous biocompatible three-dimensional scaffolds of cellulose microfiber/gelatin composites for cell culture. Acta Biomaterialia, 2010, 6, 2132-2139.	8.3	88
16	Upgrading prevascularization in tissue engineering: A review of strategies for promoting highly organized microvascular network formation. Acta Biomaterialia, 2019, 95, 112-130.	8.3	78
17	Surface defection reduces cytotoxicity of Zn(2-methylimidazole)₂ (ZIF-8) without compromising its drug delivery capacity. RSC Advances, 2016, 6, 4128-4135.	3.6	68
18	Highly Aligned Nanofibrous Scaffold Derived from Decellularized Human Fibroblasts. Advanced Functional Materials, 2014, 24, 3027-3035.	14.9	61

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19	A Critical Review of Microelectrode Arrays and Strategies for Improving Neural Interfaces. Advanced Healthcare Materials, 2019, 8, e1900558.	7.6	58
20	Natural Extracellular Matrix for Cellular and Tissue Biomanufacturing. ACS Biomaterials Science and Engineering, 2017, 3, 1462-1476.	5.2	54
21	Polydopamine and collagen coated micro-grated polydimethylsiloxane for human mesenchymal stem cell culture. Bioactive Materials, 2019, 4, 142-150.	15.6	53
22	Luminescent Probes for Sensitive Detection of pH Changes in Live Cells through Two Near-Infrared Luminescence Channels. ACS Sensors, 2017, 2, 924-931.	7.8	46
23	Perfusion affects the tissue developmental patterns of human mesenchymal stem cells in 3D scaffolds. Journal of Cellular Physiology, 2009, 219, 421-429.	4.1	45
24	Engineering stem cell cardiac patch with microvascular features representative of native myocardium. Theranostics, 2019, 9, 2143-2157.	10.0	44
25	Low Oxygen Tension and Synthetic Nanogratings Improve the Uniformity and Stemness of Human Mesenchymal Stem Cell Layer. Molecular Therapy, 2010, 18, 1010-1018.	8.2	43
26	Osteogenic Differentiation Evaluation of an Engineered Extracellular Matrix Based Tissue Sheet for Potential Periosteum Replacement. ACS Applied Materials & Interfaces, 2015, 7, 23239-23247.	8.0	38
27	Bioactive polydimethylsiloxane surface for optimal human mesenchymal stem cell sheet culture. Bioactive Materials, 2018, 3, 167-173.	15.6	38
28	Aligned Nanofibrous Cellâ€Derived Extracellular Matrix for Anisotropic Vascular Graft Construction. Advanced Healthcare Materials, 2017, 6, 1601333.	7.6	33
29	Constructing biomimetic cardiac tissues: a review of scaffold materials for engineering cardiac patches. Emergent Materials, 2019, 2, 181-191.	5.7	33
30	Updates on clinical trials evaluating the regenerative potential of allogenic mesenchymal stem cells in COVID-19. Npj Regenerative Medicine, 2021, 6, 37.	5.2	31
31	Hypoxia Created Human Mesenchymal Stem Cell Sheet for Prevascularized 3D Tissue Construction. Advanced Healthcare Materials, 2016, 5, 342-352.	7.6	28
32	Prevascularization of natural nanofibrous extracellular matrix for engineering completely biological threeâ€dimensional prevascularized tissues for diverse applications. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e1325-e1336.	2.7	28
33	Fabrication and Short-Term in Vivo Performance of a Natural Elastic Laminaâ€“Polymeric Hybrid Vascular Graft. ACS Applied Materials & Interfaces, 2015, 7, 16202-16212.	8.0	26
34	Physiologically Low Oxygen Enhances Biomolecule Production and Stemness of Mesenchymal Stem Cell Spheroids. Tissue Engineering - Part C: Methods, 2016, 22, 360-369.	2.1	26
35	Motion analysis and removal in intensity variation based OCT angiography. Biomedical Optics Express, 2014, 5, 3833.	2.9	19
36	In situ synthesis of biocompatible imidazolium salt hydrogels with antimicrobial activity. Acta Biomaterialia, 2019, 99, 133-140.	8.3	19

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37	Facile electrochemical synthesis of antimicrobial TiO2 nanotube arrays. International Journal of Nanomedicine, 2014, 9, 5177.	6.7	18
38	Disturbed flow's impact on cellular changes indicative of vascular aneurysm initiation, expansion, and rupture: A pathological and methodological review. Journal of Cellular Physiology, 2022, 237, 278-300.	4.1	17
39	Effects of local nitric oxide release on human mesenchymal stem cell attachment and proliferation on gelatin hydrogel surface. Surface Innovations, 2013, 1, 224-232.	2.3	13
40	A Moldable Nanocomposite Hydrogel Composed of a Musselâ€Inspired Polymer and a Nanosilicate as a Fitâ€toâ€Shape Tissue Sealant. Angewandte Chemie, 2017, 129, 4288-4292.	2.0	13
41	Nitric oxide regulates cell behavior on an interactive cellâ€derived extracellular matrix scaffold. Journal of Biomedical Materials Research - Part A, 2015, 103, 3807-3814.	4.0	12
42	Low-Oxygen Pretreatment Enhances Endothelial Cell Growth and Retention Under Shear Stress. Tissue Engineering - Part C: Methods, 2009, 15, 135-146.	2.1	10
43	A step-by-step protocol for generating human fibroblast cell-derived completely biological extracellular matrix scaffolds. Methods in Cell Biology, 2020, 156, 3-13.	1.1	7
44	Semishell Janus Nanoparticle-Enabled pH-Responsive Rod-Shaped Assembly for Photothermal Therapy. ACS Applied Nano Materials, 2022, 5, 871-880.	5.0	6
45	Protocols for Full Thickness Skin Wound Repair Using Prevascularized Human Mesenchymal Stem Cell Sheet. Methods in Molecular Biology, 2018, 1879, 187-200.	0.9	5
46	Fabrication of a Completely Biological and Anisotropic Human Mesenchymal Stem Cell-Based Vascular Graft. Methods in Molecular Biology, 2022, 2375, 101-114.	0.9	5
47	Engineering the Lymphatic Network: A Solution to Lymphedema. Advanced Healthcare Materials, 2021, 10, 2001537.	7.6	5
48	Preservation of microvascular integrity and immunomodulatory property of prevascularized human mesenchymal stem cell sheets. Journal of Tissue Engineering and Regenerative Medicine, 2021, 15, 207-218.	2.7	5
49	Tissue Engineering-Based Strategies for Diabetic Foot Ulcer Management. Advances in Wound Care, 2023, 12, 145-167.	5.1	5
50	Enhancement of Lymphangiogenesis by Human Mesenchymal Stem Cell Sheet. Advanced Healthcare Materials, 2022, 11, .	7.6	4
51	Mesenchymal stem cells for pre-vascularization of engineered tissues. Journal of Stem Cell Research & Therapeutics, 2018, 4, .	0.1	3
52	Bioengineering Scaffolds for Regenerative Engineering. , 2019, , 444-461.		2
53	Prevascularized Stem Cell Sheet for Full-Thickness Skin Wound Repair. Recent Clinical Techniques, Results, and Research in Wounds, 2018, , 167-172.	0.1	1
54	Computational Assessment of Hemodynamics Vortices Within the Cerebral Vasculature Using. Methods in Molecular Biology, 2022, 2375, 247-260.	0.9	0

#	Article	IF	Citations
55	Effects of Short Term Hypoxia-Preconditioning on Glial Phenotype Induction of Human Mesenchymal Stem Cells. AIMS Cell and Tissue Engineering, 2017, 1, 47-63.	0.4	0