Shuyun Liu

List of Publications by Year
in descending order

67 papers	2,700 citations	147566 31 h-index	205818 48 g-index
71 all docs	71 docs citations	71 times ranked	3165 citing authors

#	Article	IF	Citations
1	Tetrahedral framework nucleic acids promote the biological functions and related mechanism of synovium-derived mesenchymal stem cells and show improved articular cartilage regeneration activity in situ. Bioactive Materials, 2022, 9, 411-427.	8.6	16
2	Hydrogel composite scaffolds achieve recruitment and chondrogenesis in cartilage tissue engineering applications. Journal of Nanobiotechnology, 2022, 20, 25.	4.2	41
3	The immune microenvironment in cartilage injury and repair. Acta Biomaterialia, 2022, 140, 23-42.	4.1	104
4	Integrated bioactive scaffold with aptamerâ€targeted stem cell recruitment and growth factorâ€induced proâ€differentiation effects for anisotropic meniscal regeneration. Bioengineering and Translational Medicine, 2022, 7, .	3.9	17
5	Advanced Polymer-Based Drug Delivery Strategies for Meniscal Regeneration. Tissue Engineering - Part B: Reviews, 2021, 27, 266-293.	2.5	7
6	Repair of articular cartilage defect using adiposeâ€derived stem cellâ€loaded scaffold derived from native cartilage extracellular matrix. Journal of Cellular Physiology, 2021, 236, 4244-4257.	2.0	2
7	In vitro and in vivo Study on an Injectable Glycol Chitosan/Dibenzaldehyde-Terminated Polyethylene Glycol Hydrogel in Repairing Articular Cartilage Defects. Frontiers in Bioengineering and Biotechnology, 2021, 9, 607709.	2.0	12
8	Nerve growth factor (NGF) and NGF receptors in mesenchymal stem/stromal cells: Impact on potential therapies. Stem Cells Translational Medicine, 2021, 10, 1008-1020.	1.6	30
9	Research Progress on Stem Cell Therapies for Articular Cartilage Regeneration. Stem Cells International, 2021, 2021, 1-25.	1.2	29
10	Recent Developed Strategies for Enhancing Chondrogenic Differentiation of MSC: Impact on MSC-Based Therapy for Cartilage Regeneration. Stem Cells International, 2021, 2021, 1-15.	1.2	31
11	Heterogeneity of mesenchymal stem cells in cartilage regeneration: from characterization to application. Npj Regenerative Medicine, 2021, 6, 14.	2.5	85
12	Biofunctionalized Structure and Ingredient Mimicking Scaffolds Achieving Recruitment and Chondrogenesis for Staged Cartilage Regeneration. Frontiers in Cell and Developmental Biology, 2021, 9, 655440.	1.8	10
13	3D Printed Poly(Îµ-Caprolactone)/Meniscus Extracellular Matrix Composite Scaffold Functionalized With Kartogenin-Releasing PLGA Microspheres for Meniscus Tissue Engineering. Frontiers in Bioengineering and Biotechnology, 2021, 9, 662381.	2.0	25
14	Host Response to Biomaterials for Cartilage Tissue Engineering: Key to Remodeling. Frontiers in Bioengineering and Biotechnology, 2021, 9, 664592.	2.0	38
15	3D-Bioprinted Difunctional Scaffold for In Situ Cartilage Regeneration Based on Aptamer-Directed Cell Recruitment and Growth Factor-Enhanced Cell Chondrogenesis. ACS Applied Materials & Interfaces, 2021, 13, 23369-23383.	4.0	43
16	Tannic acid/Sr2+-coated silk/graphene oxide-based meniscus scaffold with anti-inflammatory and anti-ROS functions for cartilage protection and delaying osteoarthritis. Acta Biomaterialia, 2021, 126, 119-131.	4.1	53
17	Porcine fibrin sealant combined with autologous chondrocytes successfully promotes fullâ€thickness cartilage regeneration in a rabbit model. Journal of Tissue Engineering and Regenerative Medicine, 2021, 15, 776-787.	1.3	5
18	Cell-free decellularized cartilage extracellular matrix scaffolds combined with interleukin 4 promote osteochondral repair through immunomodulatory macrophages: In vitro and in vivo preclinical study. Acta Biomaterialia, 2021, 127, 131-145.	4.1	47

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19	Hierarchical macro-microporous WPU-ECM scaffolds combined with Microfracture Promote in Situ Articular Cartilage Regeneration in Rabbits. Bioactive Materials, 2021, 6, 1932-1944.	8.6	36
20	Meniscal Regenerative Scaffolds Based on Biopolymers and Polymers: Recent Status and Applications. Frontiers in Cell and Developmental Biology, 2021, 9, 661802.	1.8	14
21	Magnetic resonance imaging for non-invasive clinical evaluation of normal and regenerated cartilage. International Journal of Energy Production and Management, 2021, 8, rbab038.	1.9	32
22	Enhancement of acellular cartilage matrix scaffold by Wharton's jelly mesenchymal stem cell-derived exosomes to promote osteochondral regeneration. Bioactive Materials, 2021, 6, 2711-2728.	8.6	90
23	3D-printed cell-free PCLâ€“MECM scaffold with biomimetic micro-structure and micro-environment to enhance in situ meniscus regeneration. Bioactive Materials, 2021, 6, 3620-3633.	8.6	29
24	Hybrid material mimics a hypoxic environment to promote regeneration of peripheral nerves. Biomaterials, 2021, 277, 121068.	5.7	14
25	Chitosan hydrogel/3D-printed poly(Îµâ€caprolactone) hybrid scaffold containing synovial mesenchymal stem cells for cartilage regeneration based on tetrahedral framework nucleic acid recruitment. Biomaterials, 2021, 278, 121131.	5.7	79
26	The Application of Bioreactors for Cartilage Tissue Engineering: Advances, Limitations, and Future Perspectives. Stem Cells International, 2021, 2021, 1-13.	1.2	29
27	Small Ruminant Models for Articular Cartilage Regeneration by Scaffold-Based Tissue Engineering. Stem Cells International, 2021, 2021, 1-14.	1.2	0
28	Endogenous cell recruitment strategy for articular cartilage regeneration. Acta Biomaterialia, 2020, 114, 31-52.	4.1	64
29	Clinical Application Status of Articular Cartilage Regeneration Techniques: Tissue-Engineered Cartilage Brings New Hope. Stem Cells International, 2020, 2020, 1-16.	1.2	71
30	Advances and prospects in biomimetic multilayered scaffolds for articular cartilage regeneration. International Journal of Energy Production and Management, 2020, 7, 527-542.	1.9	30
31	Co-culture of hWJMSCs and pACs in double biomimetic ACECM oriented scaffold enhances mechanical properties and accelerates articular cartilage regeneration in a caprine model. Stem Cell Research and Therapy, 2020, 11, 180.	2.4	15
32	Cell-free 3D wet-electrospun PCL/silk fibroin/Sr2+ scaffold promotes successful total meniscus regeneration in a rabbit model. Acta Biomaterialia, 2020, 113, 196-209.	4.1	45
33	Enrichment of CD146⁺ Adipose-Derived Stem Cells in Combination with Articular Cartilage Extracellular Matrix Scaffold Promotes Cartilage Regeneration. Theranostics, 2019, 9, 5105-5121.	4.6	60
34	PCL-MECM-Based Hydrogel Hybrid Scaffolds and Meniscal Fibrochondrocytes Promote Whole Meniscus Regeneration in a Rabbit Meniscectomy Model. ACS Applied Materials & Interfaces, 2019, 11, 41626-41639.	4.0	75
35	Immunomodulatory Functions of Mesenchymal Stem Cells in Tissue Engineering. Stem Cells International, 2019, 2019, 1-18.	1.2	76
36	Coculture of hWJMSCs and pACs in Oriented Scaffold Enhances Hyaline Cartilage Regeneration <i>In Vitro</i>. Stem Cells International, 2019, 2019, 1-11.	1.2	14

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37	Three Dimensional Printing-Based Strategies for Functional Cartilage Regeneration. Tissue Engineering - Part B: Reviews, 2019, 25, 187-201.	2.5	32
38	Quantifying the degradation of degradable implants and bone formation in the femoral condyle using microâ€‘CT 3D reconstruction. Experimental and Therapeutic Medicine, 2018, 15, 93-102.	0.8	11
39	An electrospun fiber reinforced scaffold promotes total meniscus regeneration in rabbit meniscectomy model. Acta Biomaterialia, 2018, 73, 127-140.	4.1	50
40	Native tissue-based strategies for meniscus repair and regeneration. Cell and Tissue Research, 2018, 373, 337-350.	1.5	6
41	The application of electrospinning used in meniscus tissue engineering. Journal of Biomaterials Science, Polymer Edition, 2018, 29, 461-475.	1.9	17
42	hWJECM-Derived Oriented Scaffolds with Autologous Chondrocytes for Rabbit Cartilage Defect Repairing. Tissue Engineering - Part A, 2018, 24, 905-914.	1.6	16
43	Coâ€culture systemsâ€based strategies for articular cartilage tissue engineering. Journal of Cellular Physiology, 2018, 233, 1940-1951.	2.0	37
44	Bone Marrow- and Adipose Tissue-Derived Mesenchymal Stem Cells: Characterization, Differentiation, and Applications in Cartilage Tissue Engineering. Critical Reviews in Eukaryotic Gene Expression, 2018, 28, 285-310.	0.4	61
45	The optimal time to inject bone mesenchymal stem cells for fracture healing in a murine model. Stem Cell Research and Therapy, 2018, 9, 272.	2.4	35
46	In Situ Articular Cartilage Regeneration through Endogenous Reparative Cell Homing Using a Functional Bone Marrow-Specific Scaffolding System. ACS Applied Materials & Interfaces, 2018, 10, 38715-38728.	4.0	68
47	Biochemical Stimulus-Based Strategies for Meniscus Tissue Engineering and Regeneration. BioMed Research International, 2018, 2018, 1-15.	0.9	15
48	Mesenchymal Stem Cells in Oriented PLGA/ACECM Composite Scaffolds Enhance Structure-Specific Regeneration of Hyaline Cartilage in a Rabbit Model. Stem Cells International, 2018, 2018, 1-12.	1.2	25
49	Acellular Cauda Equina Allograft as Main Material Combined with Biodegradable Chitin Conduit for Regeneration of Longâ€Distance Sciatic Nerve Defect in Rats. Advanced Healthcare Materials, 2018, 7, e1800276.	3.9	26
50	Cell-Free Strategies for Repair and Regeneration of Meniscus Injuries through the Recruitment of Endogenous Stem/Progenitor Cells. Stem Cells International, 2018, 2018, 1-10.	1.2	25
51	Biomechanical Stimulus Based Strategies for Meniscus Tissue Engineering and Regeneration. Tissue Engineering - Part B: Reviews, 2018, 24, 392-402.	2.5	14
52	Comparison of glutaraldehyde and carbodiimides to crosslink tissue engineering scaffolds fabricated by decellularized porcine menisci. Materials Science and Engineering C, 2017, 71, 891-900.	3.8	52
53	Fabrication and In Vitro Study of Tissue-Engineered Cartilage Scaffold Derived from Whartonâ€™s Jelly Extracellular Matrix. BioMed Research International, 2017, 2017, 1-12.	0.9	19
54	Repair of Osteochondral Defects Using Human Umbilical Cord Whartonâ€™s Jelly-Derived Mesenchymal Stem Cells in a Rabbit Model. BioMed Research International, 2017, 2017, 1-12.	0.9	32

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55	Advances and Prospects in Stem Cells for Cartilage Regeneration. Stem Cells International, 2017, 2017, 1-16.	1.2	49
56	Adipose Tissue-Derived Pericytes for Cartilage Tissue Engineering. Current Stem Cell Research and Therapy, 2017, 12, 513-521.	0.6	14
57	Extracellular Vesicles and Autophagy in Osteoarthritis. BioMed Research International, 2016, 2016, 1-8.	0.9	22
58	Cell-Based Strategies for Meniscus Tissue Engineering. Stem Cells International, 2016, 2016, 1-10.	1.2	48
59	AMECM/DCB scaffold prompts successful total meniscus reconstruction in a rabbit total meniscectomy model. Biomaterials, 2016, 111, 13-26.	5.7	51
60	Chondrogenic differentiation of human adipose-derived stem cells using microcarrier and bioreactor combination technique. Molecular Medicine Reports, 2015, 11, 1195-1199.	1.1	9
61	Advances and Prospects in Tissue-Engineered Meniscal Scaffolds for Meniscus Regeneration. Stem Cells International, 2015, 2015, 1-13.	1.2	36
62	In vivo construction of tissue-engineered cartilage using adipose-derived stem cells and bioreactor technology. Cell and Tissue Banking, 2015, 16, 123-133.	0.5	10
63	The ECM-Cell Interaction of Cartilage Extracellular Matrix on Chondrocytes. BioMed Research International, 2014, 2014, 1-8.	0.9	215
64	<i>In vivo</i>cartilage repair using adipose-derived stem cell-loaded decellularized cartilage ECM scaffolds. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 442-453.	1.3	117
65	Characteristics of mesenchymal stem cells derived from Wharton's jelly of human umbilical cord and for fabrication of non-scaffold tissue-engineered cartilage. Journal of Bioscience and Bioengineering, 2014, 117, 229-235.	1.1	47
66	Immune characterization of mesenchymal stem cells in human umbilical cord Whartonâ€™s jelly and derived cartilage cells. Cellular Immunology, 2012, 278, 35-44.	1.4	104
67	Fabrication and cell affinity of biomimetic structured PLGA/articular cartilage ECM composite scaffold. Journal of Materials Science: Materials in Medicine, 2011, 22, 693-704.	1.7	65