Jessica E Frith

List of Publications by Year
in descending order

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55 papers	3,446 citations	186265 28 h-index	168389 53 g-index
58 all docs	58 docs citations	58 times ranked	5739 citing authors

#	Article	IF	Citations
1	Dynamic Three-Dimensional Culture Methods Enhance Mesenchymal Stem Cell Properties and Increase Therapeutic Potential. Tissue Engineering - Part C: Methods, 2010, 16, 735-749.	2.1	410
2	The influence of substrate creep on mesenchymal stem cell behaviour and phenotype. Biomaterials, 2011, 32, 5979-5993.	11.4	344
3	Effect of the Microenvironment on Mesenchymal Stem Cell Paracrine Signaling: Opportunities to Engineer the Therapeutic Effect. Stem Cells and Development, 2017, 26, 617-631.	2.1	298
4	Tailored Integrinâ€"Extracellular Matrix Interactions to Direct Human Mesenchymal Stem Cell Differentiation. Stem Cells and Development, 2012, 21, 2442-2456.	2.1	157
5	The effect of time-dependent deformation of viscoelastic hydrogels on myogenic induction and Rac1 activity in mesenchymal stem cells. Biomaterials, 2014, 35, 1857-1868.	11.4	155
6	Lateral spacing of adhesion peptides influences human mesenchymal stem cell behaviour. Journal of Cell Science, 2012, 125, 317-327.	2.0	140
7	An injectable hydrogel incorporating mesenchymal precursor cells and pentosan polysulphate for intervertebral disc regeneration. Biomaterials, 2013, 34, 9430-9440.	11.4	132
8	To Protect and to Preserve: Novel Preservation Strategies for Extracellular Vesicles. Frontiers in Pharmacology, 2018, 9, 1199.	3.5	131
9	Mechanical properties and biocompatibility of porous titanium scaffolds for bone tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 169-174.	3.1	128
10	Microfluidic Encapsulation of Human Mesenchymal Stem Cells for Articular Cartilage Tissue Regeneration. ACS Applied Materials & Interfaces, 2017, 9, 8589-8601.	8.0	119
11	Mechanical Properties and In Vitro Behavior of Additively Manufactured and Functionally Graded Ti6Al4V Porous Scaffolds. Metals, 2018, 8, 200.	2.3	110
12	Mechanically-sensitive miRNAs bias human mesenchymal stem cell fate via mTOR signalling. Nature Communications, 2018, 9, 257.	12.8	102
13	Cartilage tissue formation through assembly of microgels containing mesenchymal stem cells. Acta Biomaterialia, 2018, 77, 48-62.	8.3	102
14	Multiplicity of Mesenchymal Stromal Cells: Finding the Right Route to Therapy. Frontiers in Immunology, 2019, 10, 1112.	4.8	90
15	Transcriptional Control of Mesenchymal Stem Cell Differentiation. Transfusion Medicine and Hemotherapy, 2008, 35, 216-227.	1.6	72
16	Effects of bound versus soluble pentosan polysulphate in PEG/HA-based hydrogels tailored for intervertebral disc regeneration. Biomaterials, 2014, 35, 1150-1162.	11.4	59
17	Remelt processing and microstructure of selective laser melted Ti25Ta. Journal of Alloys and Compounds, 2020, 820, 153082.	5.5	55
18	Effects of electric fields on human mesenchymal stem cell behaviour and morphology using a novel multichannel device. Integrative Biology (United Kingdom), 2015, 7, 693-712.	1.3	53

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19	Additive Manufacturing of Titanium Alloys for Orthopedic Applications: A Materials Science Viewpoint. Advanced Engineering Materials, 2018, 20, 1800172.	3.5	51
20	Modulation of Stem Cell Adhesion and Morphology via Facile Control over Surface Presentation of Cell Adhesion Molecules. Biomacromolecules, 2014, 15, 43-52.	5.4	48
21	Five Piconewtons: The Difference between Osteogenic and Adipogenic Fate Choice in Human Mesenchymal Stem Cells. ACS Nano, 2019, 13, 11129-11143.	14.6	47
22	In situ miRNA delivery from a hydrogel promotes osteogenesis of encapsulated mesenchymal stromal cells. Acta Biomaterialia, 2020, 101, 249-261.	8.3	43
23	Precision Surface Microtopography Regulates Cell Fate via Changes to Actomyosin Contractility and Nuclear Architecture. Advanced Science, 2021, 8, 2003186.	11.2	41
24	Cell Adhesion, Morphology, and Metabolism Variation via Acoustic Exposure within Microfluidic Cell Handling Systems. Advanced Science, 2019, 6, 1902326.	11.2	39
25	A Defined Medium and Substrate for Expansion of Human Mesenchymal Stromal Cell Progenitors That Enriches for Osteo- and Chondrogenic Precursors. Stem Cells and Development, 2011, 20, 77-87.	2.1	38
26	Derivation of Mesenchymal Stromal Cells from Canine Induced Pluripotent Stem Cells by Inhibition of the TGFÎ²/Activin Signaling Pathway. Stem Cells and Development, 2014, 23, 3021-3033.	2.1	38
27	Polyethylene glycolâ€“gelatin hydrogels with tuneable stiffness prepared by horseradish peroxidase-activated tetrazineâ€“norbornene ligation. Journal of Materials Chemistry B, 2018, 6, 1394-1401.	5.8	36
28	Defined high protein content surfaces for stem cell culture. Biomaterials, 2010, 31, 5137-5142.	11.4	35
29	Effect of 2D and 3D Culture Microenvironments on Mesenchymal Stem Cell-Derived Extracellular Vesicles Potencies. Frontiers in Cell and Developmental Biology, 2022, 10, 819726.	3.7	32
30	Cell-laden injectable microgels: Current status and future prospects for cartilage regeneration. Biomaterials, 2021, 279, 121214.	11.4	30
31	Microencapsulation improves chondrogenesis in vitro and cartilaginous matrix stability in vivo compared to bulk encapsulation. Biomaterials Science, 2020, 8, 1711-1725.	5.4	27
32	Three-Dimensional In Vitro Culture Techniques for Mesenchymal Stem Cells. Methods in Molecular Biology, 2012, 916, 31-45.	0.9	24
33	Concise Review: New Frontiers in MicroRNA-Based Tissue Regeneration. Stem Cells Translational Medicine, 2014, 3, 969-976.	3.3	24
34	The Evx1/Evx1as gene locus regulates anterior-posterior patterning during gastrulation. Scientific Reports, 2016, 6, 26657.	3.3	24
35	Printability and bio-functionality of a shear thinning methacrylated xanthanâ€“gelatin composite bioink. Biofabrication, 2021, 13, 035023.	7.1	20
36	Comparison of the Microstructure and Biocorrosion Properties of Additively Manufactured and Conventionally Fabricated near Î² Tiâ€“25Nbâ€“3Zrâ€“3Moâ€“2Sn Alloy. ACS Biomaterials Science and Engineering, 2019, 5, 5844-5856.	5.2	19

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37	Effect of Geometric Challenges on Cell Migration. Tissue Engineering - Part C: Methods, 2011, 17, 999-1010.	2.1	18
38	A synthetic elastomer based on acrylated polypropylene glycol triol with tunable modulus for tissue engineering applications. Biomaterials, 2010, 31, 7937-7947.	11.4	16
39	Biocompatible porous titanium scaffolds produced using a novel space holder technique. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2796-2806.	3.4	16
40	Microbioreactor Array Screening of Wnt Modulators and Microenvironmental Factors in Osteogenic Differentiation of Mesenchymal Progenitor Cells. PLoS ONE, 2013, 8, e82931.	2.5	15
41	Tendon tissue engineering: Current progress towards an optimized tenogenic differentiation protocol for human stem cells. Acta Biomaterialia, 2022, 145, 25-42.	8.3	15
42	Next Generation Cell Culture Tools Featuring Microâ€•and Nanotopographies for Biological Screening. Advanced Functional Materials, 2022, 32, 2100881.	14.9	14
43	Fluorescent and Magnetic Mesoporous Hybrid Material: A Chemical and Biological Nanosensor for Hg2+ Ions. Scientific Reports, 2016, 6, 21820.	3.3	13
44	The Bumpy Road to Stem Cell Therapies: Rational Design of Surface Topographies to Dictate Stem Cell Mechanotransduction and Fate. ACS Applied Materials & Interfaces, 2022, 14, 23066-23101.	8.0	12
45	Bioorthogonal hydrogels by thiolâ€“halide click crosslinking with fast gelation time and tunable stability in aqueous media. Journal of Polymer Science Part A, 2019, 57, 1872-1876.	2.3	11
46	Review: Nanomaterials for Reactive Oxygen Species Detection and Monitoring in Biological Environments. Frontiers in Chemistry, 2021, 9, 728717.	3.6	11
47	Osteogenic Potential of Additively Manufactured TiTa Alloys. ACS Applied Bio Materials, 2021, 4, 1003-1014.	4.6	9
48	Interplay of Hydrogel Composition and Geometry on Human Mesenchymal Stem Cell Osteogenesis. Biomacromolecules, 2020, 21, 5323-5335.	5.4	8
49	Editorial: Stem Cells as Targeted Drug Delivery Vehicles. Frontiers in Pharmacology, 2020, 11, 614730.	3.5	3
50	Stability and Performance Study of Fluorescent Organosilica pH Nanosensors. Langmuir, 2021, 37, 6578-6587.	3.5	3
51	Development of Defined Culture Conditions for Expansion of Human Mesenchymal Stromal Cells for Clinical Applications. Stem Cells and Cancer Stem Cells, 2012, , 13-26.	0.1	1
52	Microfluidic devices for developing tissue scaffolds. , 2013, , 363-387.		1
53	Microfluidic devices for developing tissue scaffolds. , 2021, , 413-435.		1
54	Physical Stimulation in Tissue-Engineering. , 2019, , 35-52.		1

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55	Next Generation Cell Culture Tools Featuring Microâ€•and Nanotopographies for Biological Screening (Adv. Funct. Mater. 3/2022). Advanced Functional Materials, 2022, 32, .	14.9	1