

Jessica E Frith

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

3,446
citations

185998

28
h-index

168136

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. <i>Tissue Engineering - Part C: Methods</i> , 2010, 16, 735-749.	1.1	410
2	The influence of substrate creep on mesenchymal stem cell behaviour and phenotype. <i>Biomaterials</i> , 2011, 32, 5979-5993.	5.7	344
3	Effect of the Microenvironment on Mesenchymal Stem Cell Paracrine Signaling: Opportunities to Engineer the Therapeutic Effect. <i>Stem Cells and Development</i> , 2017, 26, 617-631.	1.1	298
4	Tailored Integrin-Extracellular Matrix Interactions to Direct Human Mesenchymal Stem Cell Differentiation. <i>Stem Cells and Development</i> , 2012, 21, 2442-2456.	1.1	157
5	The effect of time-dependent deformation of viscoelastic hydrogels on myogenic induction and Rac1 activity in mesenchymal stem cells. <i>Biomaterials</i> , 2014, 35, 1857-1868.	5.7	155
6	Lateral spacing of adhesion peptides influences human mesenchymal stem cell behaviour. <i>Journal of Cell Science</i> , 2012, 125, 317-327.	1.2	140
7	An injectable hydrogel incorporating mesenchymal precursor cells and pentosan polysulphate for intervertebral disc regeneration. <i>Biomaterials</i> , 2013, 34, 9430-9440.	5.7	132
8	To Protect and to Preserve: Novel Preservation Strategies for Extracellular Vesicles. <i>Frontiers in Pharmacology</i> , 2018, 9, 1199.	1.6	131
9	Mechanical properties and biocompatibility of porous titanium scaffolds for bone tissue engineering. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 75, 169-174.	1.5	128
10	Microfluidic Encapsulation of Human Mesenchymal Stem Cells for Articular Cartilage Tissue Regeneration. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 8589-8601.	4.0	119
11	Mechanical Properties and In Vitro Behavior of Additively Manufactured and Functionally Graded Ti6Al4V Porous Scaffolds. <i>Metals</i> , 2018, 8, 200.	1.0	110
12	Mechanically-sensitive miRNAs bias human mesenchymal stem cell fate via mTOR signalling. <i>Nature Communications</i> , 2018, 9, 257.	5.8	102
13	Cartilage tissue formation through assembly of microgels containing mesenchymal stem cells. <i>Acta Biomaterialia</i> , 2018, 77, 48-62.	4.1	102
14	Multiplicity of Mesenchymal Stromal Cells: Finding the Right Route to Therapy. <i>Frontiers in Immunology</i> , 2019, 10, 1112.	2.2	90
15	Transcriptional Control of Mesenchymal Stem Cell Differentiation. <i>Transfusion Medicine and Hemotherapy</i> , 2008, 35, 216-227.	0.7	72
16	Effects of bound versus soluble pentosan polysulphate in PEG/HA-based hydrogels tailored for intervertebral disc regeneration. <i>Biomaterials</i> , 2014, 35, 1150-1162.	5.7	59
17	Remelt processing and microstructure of selective laser melted Ti25Ta. <i>Journal of Alloys and Compounds</i> , 2020, 820, 153082.	2.8	55
18	Effects of electric fields on human mesenchymal stem cell behaviour and morphology using a novel multichannel device. <i>Integrative Biology (United Kingdom)</i> , 2015, 7, 693-712.	0.6	53

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19	Additive Manufacturing of Titanium Alloys for Orthopedic Applications: A Materials Science Viewpoint. <i>Advanced Engineering Materials</i> , 2018, 20, 1800172.	1.6	51
20	Modulation of Stem Cell Adhesion and Morphology via Facile Control over Surface Presentation of Cell Adhesion Molecules. <i>Biomacromolecules</i> , 2014, 15, 43-52.	2.6	48
21	Five Piconewtons: The Difference between Osteogenic and Adipogenic Fate Choice in Human Mesenchymal Stem Cells. <i>ACS Nano</i> , 2019, 13, 11129-11143.	7.3	47
22	In situ miRNA delivery from a hydrogel promotes osteogenesis of encapsulated mesenchymal stromal cells. <i>Acta Biomaterialia</i> , 2020, 101, 249-261.	4.1	43
23	Precision Surface Microtopography Regulates Cell Fate via Changes to Actomyosin Contractility and Nuclear Architecture. <i>Advanced Science</i> , 2021, 8, 2003186.	5.6	41
24	Cell Adhesion, Morphology, and Metabolism Variation via Acoustic Exposure within Microfluidic Cell Handling Systems. <i>Advanced Science</i> , 2019, 6, 1902326.	5.6	39
25	A Defined Medium and Substrate for Expansion of Human Mesenchymal Stromal Cell Progenitors That Enriches for Osteo- and Chondrogenic Precursors. <i>Stem Cells and Development</i> , 2011, 20, 77-87.	1.1	38
26	Derivation of Mesenchymal Stromal Cells from Canine Induced Pluripotent Stem Cells by Inhibition of the TGF β ² /Activin Signaling Pathway. <i>Stem Cells and Development</i> , 2014, 23, 3021-3033.	1.1	38
27	Polyethylene glycol-gelatin hydrogels with tuneable stiffness prepared by horseradish peroxidase-activated tetrazine-norbornene ligation. <i>Journal of Materials Chemistry B</i> , 2018, 6, 1394-1401.	2.9	36
28	Defined high protein content surfaces for stem cell culture. <i>Biomaterials</i> , 2010, 31, 5137-5142.	5.7	35
29	Effect of 2D and 3D Culture Microenvironments on Mesenchymal Stem Cell-Derived Extracellular Vesicles Potencies. <i>Frontiers in Cell and Developmental Biology</i> , 2022, 10, 819726.	1.8	32
30	Cell-laden injectable microgels: Current status and future prospects for cartilage regeneration. <i>Biomaterials</i> , 2021, 279, 121214.	5.7	30
31	Microencapsulation improves chondrogenesis <i>in vitro</i> and cartilaginous matrix stability <i>in vivo</i> compared to bulk encapsulation. <i>Biomaterials Science</i> , 2020, 8, 1711-1725.	2.6	27
32	Three-Dimensional In Vitro Culture Techniques for Mesenchymal Stem Cells. <i>Methods in Molecular Biology</i> , 2012, 916, 31-45.	0.4	24
33	Concise Review: New Frontiers in MicroRNA-Based Tissue Regeneration. <i>Stem Cells Translational Medicine</i> , 2014, 3, 969-976.	1.6	24
34	The <i>Evx1/Evx1as</i> gene locus regulates anterior-posterior patterning during gastrulation. <i>Scientific Reports</i> , 2016, 6, 26657.	1.6	24
35	Printability and bio-functionality of a shear thinning methacrylated xanthan-gelatin composite bioink. <i>Biofabrication</i> , 2021, 13, 035023.	3.7	20
36	Comparison of the Microstructure and Biocorrosion Properties of Additively Manufactured and Conventionally Fabricated near β Ti-25Nb-3Zr-3Mo-2Sn Alloy. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 5844-5856.	2.6	19

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37	Effect of Geometric Challenges on Cell Migration. <i>Tissue Engineering - Part C: Methods</i> , 2011, 17, 999-1010.	1.1	18
38	A synthetic elastomer based on acrylated polypropylene glycol triol with tunable modulus for tissue engineering applications. <i>Biomaterials</i> , 2010, 31, 7937-7947.	5.7	16
39	Biocompatible porous titanium scaffolds produced using a novel space holder technique. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 2796-2806.	1.6	16
40	Microbioreactor Array Screening of Wnt Modulators and Microenvironmental Factors in Osteogenic Differentiation of Mesenchymal Progenitor Cells. <i>PLoS ONE</i> , 2013, 8, e82931.	1.1	15
41	Tendon tissue engineering: Current progress towards an optimized tenogenic differentiation protocol for human stem cells. <i>Acta Biomaterialia</i> , 2022, 145, 25-42.	4.1	15
42	Next Generation Cell Culture Tools Featuring Micro- and Nanotopographies for Biological Screening. <i>Advanced Functional Materials</i> , 2022, 32, 2100881.	7.8	14
43	Fluorescent and Magnetic Mesoporous Hybrid Material: A Chemical and Biological Nanosensor for Hg ²⁺ Ions. <i>Scientific Reports</i> , 2016, 6, 21820.	1.6	13
44	The Bumpy Road to Stem Cell Therapies: Rational Design of Surface Topographies to Dictate Stem Cell Mechanotransduction and Fate. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 23066-23101.	4.0	12
45	Bioorthogonal hydrogels by thiol-halide click crosslinking with fast gelation time and tunable stability in aqueous media. <i>Journal of Polymer Science Part A</i> , 2019, 57, 1872-1876.	2.5	11
46	Review: Nanomaterials for Reactive Oxygen Species Detection and Monitoring in Biological Environments. <i>Frontiers in Chemistry</i> , 2021, 9, 728717.	1.8	11
47	Osteogenic Potential of Additively Manufactured TiTa Alloys. <i>ACS Applied Bio Materials</i> , 2021, 4, 1003-1014.	2.3	9
48	Interplay of Hydrogel Composition and Geometry on Human Mesenchymal Stem Cell Osteogenesis. <i>Biomacromolecules</i> , 2020, 21, 5323-5335.	2.6	8
49	Editorial: Stem Cells as Targeted Drug Delivery Vehicles. <i>Frontiers in Pharmacology</i> , 2020, 11, 614730.	1.6	3
50	Stability and Performance Study of Fluorescent Organosilica pH Nanosensors. <i>Langmuir</i> , 2021, 37, 6578-6587.	1.6	3
51	Development of Defined Culture Conditions for Expansion of Human Mesenchymal Stromal Cells for Clinical Applications. <i>Stem Cells and Cancer Stem Cells</i> , 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 Micro- and Nanotopographies for Biological Screening (Adv. Funct. Mater. 3/2022). Advanced Functional Materials, 2022, 32, .	7.8	1