Jessica E Frith

List of Publications by Year
in descending order

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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	Next Generation Cell Culture Tools Featuring Microâ€•and Nanotopographies for Biological Screening. Advanced Functional Materials, 2022, 32, 2100881.	7.8	14
2	Next Generation Cell Culture Tools Featuring Microâ€•and Nanotopographies for Biological Screening (Adv. Funct. Mater. 3/2022). Advanced Functional Materials, 2022, 32, .	7.8	1
3	Effect of 2D and 3D Culture Microenvironments on Mesenchymal Stem Cell-Derived Extracellular Vesicles Potencies. Frontiers in Cell and Developmental Biology, 2022, 10, 819726.	1.8	32
4	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.	4.0	12
5	Tendon tissue engineering: Current progress towards an optimized tenogenic differentiation protocol for human stem cells. Acta Biomaterialia, 2022, 145, 25-42.	4.1	15
6	Precision Surface Microtopography Regulates Cell Fate via Changes to Actomyosin Contractility and Nuclear Architecture. Advanced Science, 2021, 8, 2003186.	5.6	41
7	Microfluidic devices for developing tissue scaffolds. , 2021, , 413-435.		1
8	Printability and bio-functionality of a shear thinning methacrylated xanthanâ€“gelatin composite bioink. Biofabrication, 2021, 13, 035023.	3.7	20
9	Stability and Performance Study of Fluorescent Organosilica pH Nanosensors. Langmuir, 2021, 37, 6578-6587.	1.6	3
10	Review: Nanomaterials for Reactive Oxygen Species Detection and Monitoring in Biological Environments. Frontiers in Chemistry, 2021, 9, 728717.	1.8	11
11	Osteogenic Potential of Additively Manufactured TiTa Alloys. ACS Applied Bio Materials, 2021, 4, 1003-1014.	2.3	9
12	Cell-laden injectable microgels: Current status and future prospects for cartilage regeneration. Biomaterials, 2021, 279, 121214.	5.7	30
13	In situ miRNA delivery from a hydrogel promotes osteogenesis of encapsulated mesenchymal stromal cells. Acta Biomaterialia, 2020, 101, 249-261.	4.1	43
14	Remelt processing and microstructure of selective laser melted Ti25Ta. Journal of Alloys and Compounds, 2020, 820, 153082.	2.8	55
15	Interplay of Hydrogel Composition and Geometry on Human Mesenchymal Stem Cell Osteogenesis. Biomacromolecules, 2020, 21, 5323-5335.	2.6	8
16	Editorial: Stem Cells as Targeted Drug Delivery Vehicles. Frontiers in Pharmacology, 2020, 11, 614730.	1.6	3
17	Microencapsulation improves chondrogenesis in vitro and cartilaginous matrix stability in vivo compared to bulk encapsulation. Biomaterials Science, 2020, 8, 1711-1725.	2.6	27
18	Cell Adhesion, Morphology, and Metabolism Variation via Acoustic Exposure within Microfluidic Cell Handling Systems. Advanced Science, 2019, 6, 1902326.	5.6	39

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19	Five Piconewtons: The Difference between Osteogenic and Adipogenic Fate Choice in Human Mesenchymal Stem Cells. ACS Nano, 2019, 13, 11129-11143.	7.3	47
20	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.	2.6	19
21	Multiplicity of Mesenchymal Stromal Cells: Finding the Right Route to Therapy. Frontiers in Immunology, 2019, 10, 1112.	2.2	90
22	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.	2.5	11
23	Physical Stimulation in Tissue-Engineering. , 2019, , 35-52.		1
24	Polyethylene glycolâ€“gelatin hydrogels with tuneable stiffness prepared by horseradish peroxidase-activated tetrazineâ€“norbornene ligation. Journal of Materials Chemistry B, 2018, 6, 1394-1401.	2.9	36
25	Biocompatible porous titanium scaffolds produced using a novel space holder technique. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2796-2806.	1.6	16
26	Mechanically-sensitive miRNAs bias human mesenchymal stem cell fate via mTOR signalling. Nature Communications, 2018, 9, 257.	5.8	102
27	To Protect and to Preserve: Novel Preservation Strategies for Extracellular Vesicles. Frontiers in Pharmacology, 2018, 9, 1199.	1.6	131
28	Additive Manufacturing of Titanium Alloys for Orthopedic Applications: A Materials Science Viewpoint. Advanced Engineering Materials, 2018, 20, 1800172.	1.6	51
29	Mechanical Properties and In Vitro Behavior of Additively Manufactured and Functionally Graded Ti6Al4V Porous Scaffolds. Metals, 2018, 8, 200.	1.0	110
30	Cartilage tissue formation through assembly of microgels containing mesenchymal stem cells. Acta Biomaterialia, 2018, 77, 48-62.	4.1	102
31	Microfluidic Encapsulation of Human Mesenchymal Stem Cells for Articular Cartilage Tissue Regeneration. ACS Applied Materials & Interfaces, 2017, 9, 8589-8601.	4.0	119
32	Effect of the Microenvironment on Mesenchymal Stem Cell Paracrine Signaling: Opportunities to Engineer the Therapeutic Effect. Stem Cells and Development, 2017, 26, 617-631.	1.1	298
33	Mechanical properties and biocompatibility of porous titanium scaffolds for bone tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 169-174.	1.5	128
34	The Evx1/Evx1as gene locus regulates anterior-posterior patterning during gastrulation. Scientific Reports, 2016, 6, 26657.	1.6	24
35	Fluorescent and Magnetic Mesoporous Hybrid Material: A Chemical and Biological Nanosensor for Hg2+ Ions. Scientific Reports, 2016, 6, 21820.	1.6	13
36	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.	0.6	53

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37	Modulation of Stem Cell Adhesion and Morphology via Facile Control over Surface Presentation of Cell Adhesion Molecules. Biomacromolecules, 2014, 15, 43-52.	2.6	48
38	Concise Review: New Frontiers in MicroRNA-Based Tissue Regeneration. Stem Cells Translational Medicine, 2014, 3, 969-976.	1.6	24
39	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.	1.1	38
40	The effect of time-dependent deformation of viscoelastic hydrogels on myogenic induction and Rac1 activity in mesenchymal stem cells. Biomaterials, 2014, 35, 1857-1868.	5.7	155
41	Effects of bound versus soluble pentosan polysulphate in PEG/HA-based hydrogels tailored for intervertebral disc regeneration. Biomaterials, 2014, 35, 1150-1162.	5.7	59
42	An injectable hydrogel incorporating mesenchymal precursor cells and pentosan polysulphate for intervertebral disc regeneration. Biomaterials, 2013, 34, 9430-9440.	5.7	132
43	Microfluidic devices for developing tissue scaffolds. , 2013, , 363-387.		1
44	Microbioreactor Array Screening of Wnt Modulators and Microenvironmental Factors in Osteogenic Differentiation of Mesenchymal Progenitor Cells. PLoS ONE, 2013, 8, e82931.	1.1	15
45	Lateral spacing of adhesion peptides influences human mesenchymal stem cell behaviour. Journal of Cell Science, 2012, 125, 317-327.	1.2	140
46	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
47	Three-Dimensional In Vitro Culture Techniques for Mesenchymal Stem Cells. Methods in Molecular Biology, 2012, 916, 31-45.	0.4	24
48	Tailored Integrinâ€“Extracellular Matrix Interactions to Direct Human Mesenchymal Stem Cell Differentiation. Stem Cells and Development, 2012, 21, 2442-2456.	1.1	157
49	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.	1.1	38
50	The influence of substrate creep on mesenchymal stem cell behaviour and phenotype. Biomaterials, 2011, 32, 5979-5993.	5.7	344
51	Effect of Geometric Challenges on Cell Migration. Tissue Engineering - Part C: Methods, 2011, 17, 999-1010.	1.1	18
52	Defined high protein content surfaces for stem cell culture. Biomaterials, 2010, 31, 5137-5142.	5.7	35
53	A synthetic elastomer based on acrylated polypropylene glycol triol with tunable modulus for tissue engineering applications. Biomaterials, 2010, 31, 7937-7947.	5.7	16
54	Dynamic Three-Dimensional Culture Methods Enhance Mesenchymal Stem Cell Properties and Increase Therapeutic Potential. Tissue Engineering - Part C: Methods, 2010, 16, 735-749.	1.1	410

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55	Transcriptional Control of Mesenchymal Stem Cell Differentiation. Transfusion Medicine and Hemotherapy, 2008, 35, 216-227.	0.7	72