

Eric M Darling

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

58

papers

3,666

citations

23

h-index

60

g-index

67

ext. papers

4,079

ext. citations

5.1

avg, IF

5.66

L-index

#	Paper	IF	Citations
58	Nanotopography-induced changes in focal adhesions, cytoskeletal organization, and mechanical properties of human mesenchymal stem cells. <i>Biomaterials</i> , 2010 , 31, 1299-306	15.6	561
57	Rapid phenotypic changes in passaged articular chondrocyte subpopulations. <i>Journal of Orthopaedic Research</i> , 2005 , 23, 425-32	3.8	475
56	Viscoelastic properties of human mesenchymally-derived stem cells and primary osteoblasts, chondrocytes, and adipocytes. <i>Journal of Biomechanics</i> , 2008 , 41, 454-64	2.9	273
55	A thin-layer model for viscoelastic, stress-relaxation testing of cells using atomic force microscopy: do cell properties reflect metastatic potential?. <i>Biophysical Journal</i> , 2007 , 92, 1784-91	2.9	248
54	Articular cartilage bioreactors and bioprocesses. <i>Tissue Engineering</i> , 2003 , 9, 9-26		229
53	Viscoelastic properties of zonal articular chondrocytes measured by atomic force microscopy. <i>Osteoarthritis and Cartilage</i> , 2006 , 14, 571-9	6.2	228
52	Impact of aging on the regenerative properties of bone marrow-, muscle-, and adipose-derived mesenchymal stem/stromal cells. <i>PLoS ONE</i> , 2014 , 9, e115963	3.7	205
51	Cellular mechanical properties reflect the differentiation potential of adipose-derived mesenchymal stem cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, E1523-9	11.5	159
50	High-Throughput Assessment of Cellular Mechanical Properties. <i>Annual Review of Biomedical Engineering</i> , 2015 , 17, 35-62	12	106
49	Spatial mapping of the biomechanical properties of the pericellular matrix of articular cartilage measured in situ via atomic force microscopy. <i>Biophysical Journal</i> , 2010 , 98, 2848-56	2.9	105
48	Zonal and topographical differences in articular cartilage gene expression. <i>Journal of Orthopaedic Research</i> , 2004 , 22, 1182-7	3.8	98
47	Biomechanical strategies for articular cartilage regeneration. <i>Annals of Biomedical Engineering</i> , 2003 , 31, 1114-24	4.7	97
46	Growth factor impact on articular cartilage subpopulations. <i>Cell and Tissue Research</i> , 2005 , 322, 463-73	4.2	82
45	Three-Dimensional Neural Spheroid Culture: An In Vitro Model for Cortical Studies. <i>Tissue Engineering - Part C: Methods</i> , 2015 , 21, 1274-83	2.9	76
44	Retaining zonal chondrocyte phenotype by means of novel growth environments. <i>Tissue Engineering</i> , 2005 , 11, 395-403		72
43	Extracellular matrix ligand and stiffness modulate immature nucleus pulposus cell-cell interactions. <i>PLoS ONE</i> , 2011 , 6, e27170	3.7	66
42	Considerations for high-yield, high-throughput cell enrichment: fluorescence versus magnetic sorting. <i>Scientific Reports</i> , 2019 , 9, 227	4.9	58

41	Isolation, characterization, and differentiation of stem cells for cartilage regeneration. <i>Annals of Biomedical Engineering</i> , 2012 , 40, 2079-97	4.7	53
40	In situ friction measurement on murine cartilage by atomic force microscopy. <i>Journal of Biomechanics</i> , 2008 , 41, 541-8	2.9	53
39	Mechanical properties and gene expression of chondrocytes on micropatterned substrates following dedifferentiation in monolayer. <i>Cellular and Molecular Bioengineering</i> , 2009 , 2, 395-404	3.9	44
38	Articular Cartilage Tissue Engineering 2009 , 1, 1-182		34
37	3D Viscoelastic traction force microscopy. <i>Soft Matter</i> , 2014 , 10, 8095-106	3.6	33
36	Force scanning: a rapid, high-resolution approach for spatial mechanical property mapping. <i>Nanotechnology</i> , 2011 , 22, 175707	3.4	27
35	Adipose-derived stem cell fate is predicted by cellular mechanical properties. <i>Adipocyte</i> , 2013 , 2, 87-91	3.2	23
34	Temporal heterogeneity in single-cell gene expression and mechanical properties during adipogenic differentiation. <i>Journal of Biomechanics</i> , 2015 , 48, 1058-66	2.9	17
33	Adipose-derived stem cells retain their regenerative potential after methotrexate treatment. <i>Experimental Cell Research</i> , 2014 , 327, 222-33	4.2	17
32	The Emerging Role of Lamin C as an Important Isoform in Mechanophenotype. <i>Frontiers in Cell and Developmental Biology</i> , 2018 , 6, 151	5.7	17
31	Live-cell, temporal gene expression analysis of osteogenic differentiation in adipose-derived stem cells. <i>Tissue Engineering - Part A</i> , 2014 , 20, 899-907	3.9	16
30	A neural network model for cell classification based on single-cell biomechanical properties. <i>Tissue Engineering - Part A</i> , 2008 , 14, 1507-15	3.9	16
29	Live-cell, temporal gene expression analysis of osteogenic differentiation in adipose-derived stem cells. <i>Tissue Engineering - Part A</i> , 2013 , 19, 40-8	3.9	15
28	Characterization of mechanical and regenerative properties of human, adipose stromal cells. <i>Cellular and Molecular Bioengineering</i> , 2014 , 7, 585-597	3.9	15
27	Fabricating polyacrylamide microbeads by inverse emulsification to mimic the size and elasticity of living cells. <i>Biomaterials Science</i> , 2016 , 5, 41-45	7.4	13
26	Concise Review: Fabrication, Customization, and Application of Cell Mimicking Microparticles in Stem Cell Science. <i>Stem Cells Translational Medicine</i> , 2018 , 7, 232-240	6.9	11
25	Nuclear Lamin Protein C Is Linked to Lineage-Specific, Whole-Cell Mechanical Properties. <i>Cellular and Molecular Bioengineering</i> , 2018 , 11, 131-142	3.9	10
24	Protein characterization of intracellular target-sorted, formalin-fixed cell subpopulations. <i>Scientific Reports</i> , 2016 , 6, 33999	4.9	10

23	Deficient Mechanical Activation of Anabolic Transcripts and Post-Traumatic Cartilage Degeneration in Matrilin-1 Knockout Mice. <i>PLoS ONE</i> , 2016 , 11, e0156676	3.7	10
22	Functional properties of chondrocytes and articular cartilage using optical imaging to scanning probe microscopy. <i>Journal of Orthopaedic Research</i> , 2018 , 36, 620-631	3.8	9
21	Cell Mimicking Microparticles Influence the Organization, Growth, and Mechanophenotype of Stem Cell Spheroids. <i>Annals of Biomedical Engineering</i> , 2018 , 46, 1146-1159	4.7	9
20	Regenerative Potential and Inflammation-Induced Secretion Profile of Human Adipose-Derived Stromal Vascular Cells Are Influenced by Donor Variability and Prior Breast Cancer Diagnosis. <i>Stem Cell Reviews and Reports</i> , 2018 , 14, 546-557	6.4	9
19	Gene expression-based enrichment of live cells from adipose tissue produces subpopulations with improved osteogenic potential. <i>Stem Cell Research and Therapy</i> , 2014 , 5, 145	8.3	9
18	A biomimetic synthetic feeder layer supports the proliferation and self-renewal of mouse embryonic stem cells. <i>Acta Biomaterialia</i> , 2016 , 39, 55-64	10.8	9
17	Shape-Preserved Transformation of Biological Cells into Synthetic Hydrogel Microparticles. <i>Advanced Biology</i> , 2019 , 3, e1800285	3.5	7
16	Influence of Inherent Mechanophenotype on Competitive Cellular Adherence. <i>Annals of Biomedical Engineering</i> , 2017 , 45, 2036-2047	4.7	7
15	Synthesis and Characterization of a Magnetically Active F Molecular Beacon. <i>Bioconjugate Chemistry</i> , 2018 , 29, 335-342	6.3	6
14	Disparate Response to Methotrexate in Stem Versus Non-Stem Cells. <i>Stem Cell Reviews and Reports</i> , 2016 , 12, 340-51	6.4	5
13	Effect of elastic modulus on inertial displacement of cell-like particles in microchannels. <i>Biomicrofluidics</i> , 2020 , 14, 044110	3.2	5
12	Single-Cell Microgels for Diagnostics and Therapeutics. <i>Advanced Functional Materials</i> , 2021 , 31, 2009946	5.6	4
11	Integration of hyper-compliant microparticles into a 3D melanoma tumor model. <i>Journal of Biomechanics</i> , 2019 , 82, 46-53	2.9	4
10	Single Step Double-walled Nanoencapsulation (SSDN). <i>Journal of Controlled Release</i> , 2018 , 280, 11-19	11.7	3
9	Processing fixed and stored adipose-derived stem cells for quantitative protein array assays. <i>BioTechniques</i> , 2017 , 63, 275-280	2.5	2
8	Force sensors for measuring microenvironmental forces during mesenchymal condensation. <i>Biomaterials</i> , 2021 , 270, 120684	15.6	2
7	Articular Cartilage Bioreactors and Bioprocesses. <i>Tissue Engineering</i> , 2003 , 9, 565-565		1
6	Mass-Added Density Modulation for Sorting Cells Based on Differential Surface Protein Levels. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2021 , 99, 488-495	4.6	1

5	Comparison of four stainless steel heat exchangers for neonatal ECMO applications. <i>Journal of Extra-Corporeal Technology</i> , 1994 , 26, 68-73	0.4	1
4	Quantification of Antibody Persistence for Cell Surface Protein Labeling. <i>Cellular and Molecular Bioengineering</i> , 2021 , 14, 267-277	3.9	0
3	Generating Cell Type-Specific Protein Signatures from Non-symptomatic and Diseased Tissues. <i>Annals of Biomedical Engineering</i> , 2020 , 48, 2218-2232	4.7	0
2	Temporal responsiveness of adipose-derived stem/stromal cell immune plasticity. <i>Experimental Cell Research</i> , 2021 , 406, 112738	4.2	0
1	Translating Mechanobiology to the Clinic: a panel discussion from the 2018 CMBE Conference. <i>Cellular and Molecular Bioengineering</i> , 2018 , 11, 531-535	3.9	