Eric M Darling

List of Publications by Year in Descending Order

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	Single-Cell Microgels for Diagnostics and Therapeutics. *Advanced Functional Materials*, **2021**, 31, 2009946	15.6	4
57	Force sensors for measuring microenvironmental forces during mesenchymal condensation. *Biomaterials*, **2021**, 270, 120684	15.6	2
56	Quantification of Antibody Persistence for Cell Surface Protein Labeling. *Cellular and Molecular Bioengineering*, **2021**, 14, 267-277	3.9	0
55	Mass-Added Density Modulation for Sorting Cells Based on Differential Surface Protein Levels. *Cytometry Part A: the Journal of the International Society for Analytical Cytology*, **2021**, 99, 488-495	4.6	1
54	Temporal responsiveness of adipose-derived stem/stromal cell immune plasticity. *Experimental Cell Research*, **2021**, 406, 112738	4.2	0
53	Effect of elastic modulus on inertial displacement of cell-like particles in microchannels. *Biomicrofluidics*, **2020**, 14, 044110	3.2	5
52	Generating Cell Type-Specific Protein Signatures from Non-symptomatic and Diseased Tissues. *Annals of Biomedical Engineering*, **2020**, 48, 2218-2232	4.7	0
51	Shape-Preserved Transformation of Biological Cells into Synthetic Hydrogel Microparticles. *Advanced Biology*, **2019**, 3, e1800285	3.5	7
50	Considerations for high-yield, high-throughput cell enrichment: fluorescence versus magnetic sorting. *Scientific Reports*, **2019**, 9, 227	4.9	58
49	Integration of hyper-compliant microparticles into a 3D melanoma tumor model. *Journal of Biomechanics*, **2019**, 82, 46-53	2.9	4
48	Functional properties of chondrocytes and articular cartilage using optical imaging to scanning probe microscopy. *Journal of Orthopaedic Research*, **2018**, 36, 620-631	3.8	9
47	Cell Mimicking Microparticles Influence the Organization, Growth, and Mechanophenotype of Stem Cell Spheroids. *Annals of Biomedical Engineering*, **2018**, 46, 1146-1159	4.7	9
46	Regenerative Potential and Inflammation-Induced Secretion Profile of Human Adipose-Derived Stromal Vascular Cells Are Influenced by Donor Variability and Prior Breast Cancer Diagnosis. *Stem Cell Reviews and Reports*, **2018**, 14, 546-557	6.4	9
45	Nuclear Lamin Protein C Is Linked to Lineage-Specific, Whole-Cell Mechanical Properties. *Cellular and Molecular Bioengineering*, **2018**, 11, 131-142	3.9	10
44	Concise Review: Fabrication, Customization, and Application of Cell Mimicking Microparticles in Stem Cell Science. *Stem Cells Translational Medicine*, **2018**, 7, 232-240	6.9	11
43	Synthesis and Characterization of a Magnetically Active F Molecular Beacon. *Bioconjugate Chemistry* , **2018**, 29, 335-342	6.3	6
42	Single Step Double-walled Nanoencapsulation (SSDN). *Journal of Controlled Release*, **2018**, 280, 11-19	11.7	3

41	Translating Mechanobiology to the Clinic: a panel discussion from the 2018 CMBE Conference. *Cellular and Molecular Bioengineering*, **2018**, 11, 531-535	3.9	
40	The Emerging Role of Lamin C as an Important Isoform in Mechanophenotype. *Frontiers in Cell and Developmental Biology*, **2018**, 6, 151	5.7	17
39	Processing fixed and stored adipose-derived stem cells for quantitative protein array assays. *BioTechniques*, **2017**, 63, 275-280	2.5	2
38	Influence of Inherent Mechanophenotype on Competitive Cellular Adherence. *Annals of Biomedical Engineering*, **2017**, 45, 2036-2047	4.7	7
37	Fabricating polyacrylamide microbeads by inverse emulsification to mimic the size and elasticity of living cells. *Biomaterials Science*, **2016**, 5, 41-45	7.4	13
36	Protein characterization of intracellular target-sorted, formalin-fixed cell subpopulations. *Scientific Reports*, **2016**, 6, 33999	4.9	10
35	Disparate Response to Methotrexate in Stem Versus Non-Stem Cells. *Stem Cell Reviews and Reports* , **2016**, 12, 340-51	6.4	5
34	Deficient Mechanical Activation of Anabolic Transcripts and Post-Traumatic Cartilage Degeneration in Matrilin-1 Knockout Mice. *PLoS ONE*, **2016**, 11, e0156676	3.7	10
33	A biomimetic synthetic feeder layer supports the proliferation and self-renewal of mouse embryonic stem cells. *Acta Biomaterialia*, **2016**, 39, 55-64	10.8	9
32	High-Throughput Assessment of Cellular Mechanical Properties. *Annual Review of Biomedical Engineering*, **2015**, 17, 35-62	12	106
31	Temporal heterogeneity in single-cell gene expression and mechanical properties during adipogenic differentiation. *Journal of Biomechanics*, **2015**, 48, 1058-66	2.9	17
30	Three-Dimensional Neural Spheroid Culture: An In Vitro Model for Cortical Studies. *Tissue Engineering - Part C: Methods*, **2015**, 21, 1274-83	2.9	76
29	3D Viscoelastic traction force microscopy. *Soft Matter*, **2014**, 10, 8095-106	3.6	33
28	Live-cell, temporal gene expression analysis of osteogenic differentiation in adipose-derived stem cells. *Tissue Engineering - Part A*, **2014**, 20, 899-907	3.9	16
27	Adipose-derived stem cells retain their regenerative potential after methotrexate treatment. *Experimental Cell Research*, **2014**, 327, 222-33	4.2	17
26	Gene expression-based enrichment of live cells from adipose tissue produces subpopulations with improved osteogenic potential. *Stem Cell Research and Therapy*, **2014**, 5, 145	8.3	9
25	Characterization of mechanical and regenerative properties of human, adipose stromal cells. *Cellular and Molecular Bioengineering*, **2014**, 7, 585-597	3.9	15
24	Impact of aging on the regenerative properties of bone marrow-, muscle-, and adipose-derived mesenchymal stem/stromal cells. *PLoS ONE*, **2014**, 9, e115963	3.7	205

23	Live-cell, temporal gene expression analysis of osteogenic differentiation in adipose-derived stem cells. *Tissue Engineering - Part A*, **2013**, 19, 40-8	3.9	15
22	Adipose-derived stem cell fate is predicted by cellular mechanical properties. *Adipocyte*, **2013**, 2, 87-91	3.2	23
21	Isolation, characterization, and differentiation of stem cells for cartilage regeneration. *Annals of Biomedical Engineering*, **2012**, 40, 2079-97	4.7	53
20	Cellular mechanical properties reflect the differentiation potential of adipose-derived mesenchymal stem cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, E1523-9	11.5	159
19	Extracellular matrix ligand and stiffness modulate immature nucleus pulposus cell-cell interactions. *PLoS ONE*, **2011**, 6, e27170	3.7	66
18	Force scanning: a rapid, high-resolution approach for spatial mechanical property mapping. *Nanotechnology*, **2011**, 22, 175707	3.4	27
17	Spatial mapping of the biomechanical properties of the pericellular matrix of articular cartilage measured in situ via atomic force microscopy. *Biophysical Journal*, **2010**, 98, 2848-56	2.9	105
16	Nanotopography-induced changes in focal adhesions, cytoskeletal organization, and mechanical properties of human mesenchymal stem cells. *Biomaterials*, **2010**, 31, 1299-306	15.6	561
15	Articular Cartilage Tissue Engineering **2009**, 1, 1-182		34
14	Mechanical properties and gene expression of chondrocytes on micropatterned substrates following dedifferentiation in monolayer. *Cellular and Molecular Bioengineering*, **2009**, 2, 395-404	3.9	44
13	A neural network model for cell classification based on single-cell biomechanical properties. *Tissue Engineering - Part A*, **2008**, 14, 1507-15	3.9	16
12	Viscoelastic properties of human mesenchymally-derived stem cells and primary osteoblasts, chondrocytes, and adipocytes. *Journal of Biomechanics*, **2008**, 41, 454-64	2.9	273
11	In situ friction measurement on murine cartilage by atomic force microscopy. *Journal of Biomechanics*, **2008**, 41, 541-8	2.9	53
10	A thin-layer model for viscoelastic, stress-relaxation testing of cells using atomic force microscopy: do cell properties reflect metastatic potential?. *Biophysical Journal*, **2007**, 92, 1784-91	2.9	248
9	Viscoelastic properties of zonal articular chondrocytes measured by atomic force microscopy. *Osteoarthritis and Cartilage*, **2006**, 14, 571-9	6.2	228
8	Rapid phenotypic changes in passaged articular chondrocyte subpopulations. *Journal of Orthopaedic Research*, **2005**, 23, 425-32	3.8	475
7	Growth factor impact on articular cartilage subpopulations. *Cell and Tissue Research*, **2005**, 322, 463-73	4.2	82
6	Retaining zonal chondrocyte phenotype by means of novel growth environments. *Tissue Engineering*, **2005**, 11, 395-403		72

5	Zonal and topographical differences in articular cartilage gene expression. *Journal of Orthopaedic Research*, **2004**, 22, 1182-7	3.8	98
4	Biomechanical strategies for articular cartilage regeneration. *Annals of Biomedical Engineering*, **2003**, 31, 1114-24	4.7	97
3	Articular cartilage bioreactors and bioprocesses. *Tissue Engineering*, **2003**, 9, 9-26		229
2	Articular Cartilage Bioreactors and Bioprocesses. *Tissue Engineering*, **2003**, 9, 565-565		1
1	Comparison of four stainless steel heat exchangers for neonatal ECMO applications. *Journal of Extra-Corporeal Technology*, **1994**, 26, 68-73	0.4	1