Pen-Hsiu Grace Chao

List of Publications by Year
in descending order

44 papers	3,436 citations	249298 26 h-index	371746 37 g-index
45 all docs	45 docs citations	45 times ranked	5091 citing authors

#	Article	IF	Citations
1	Deformation of the nucleus by TGFÎ²1 via the remodeling of nuclear envelope and histone isoforms. Epigenetics and Chromatin, 2022, 15, 1.	1.8	11
2	3D-Printed Collagen-Based Waveform Microfibrous Scaffold for Periodontal Ligament Reconstruction. International Journal of Molecular Sciences, 2021, 22, 7725.	1.8	12
3	Chemical Optimization for Functional Ligament Tissue Engineering. Tissue Engineering - Part A, 2020, 26, 102-110.	1.6	9
4	Aberrant mechanosensing in injured intervertebral discs as a result of boundary-constraint disruption and residual-strain loss. Nature Biomedical Engineering, 2019, 3, 998-1008.	11.6	58
5	Defined cell adhesion for silicon-based implant materials by using vapor-deposited functional coatings. Colloids and Surfaces B: Biointerfaces, 2019, 175, 545-553.	2.5	2
6	Crimped Electrospun Fibers for Tissue Engineering. Methods in Molecular Biology, 2018, 1758, 151-159.	0.4	4
7	Stem cell delivery in tissue-specific hydrogel enabled meniscal repair in an orthotopic rat model. Biomaterials, 2017, 132, 59-71.	5.7	79
8	Crimped Nanofibrous Biomaterials Mimic Microstructure and Mechanics of Native Tissue and Alter Strain Transfer to Cells. ACS Biomaterials Science and Engineering, 2017, 3, 2869-2876.	2.6	41
9	Lipid rafts sense and direct electric field-induced migration. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8568-8573.	3.3	71
10	Endothelial Cells Enhance the Migration of Bovine Meniscus Cells. Arthritis and Rheumatology, 2015, 67, 182-192.	2.9	15
11	Silk microfiber-reinforced silk hydrogel composites for functional cartilage tissue repair. Acta Biomaterialia, 2015, 11, 27-36.	4.1	220
12	Micro-composite substrates for the study of cell-matrix mechanical interactions. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 38, 232-241.	1.5	22
13	Electrospun microcrimped fibers with nonlinear mechanical properties enhance ligament fibroblast phenotype. Biofabrication, 2014, 6, 035008.	3.7	33
14	Spinal Traction Promotes Molecular Transportation in a Simulated Degenerative Intervertebral Disc Model. Spine, 2014, 39, E550-E556.	1.0	18
15	Electrical stimulation enhances cell migration and integrative repair in the meniscus. Scientific Reports, 2014, 4, 3674.	1.6	82
16	Transient hypoxia improves matrix properties in tissue engineered cartilage. Journal of Orthopaedic Research, 2013, 31, 544-553.	1.2	16
17	The influence and interactions of substrate thickness, organization and dimensionality on cell morphology and migration. Acta Biomaterialia, 2013, 9, 5502-5510.	4.1	34
18	Î±2Î²1 integrin and RhoA mediates electric fieldâ€induced ligament fibroblast migration directionality. Journal of Orthopaedic Research, 2013, 31, 322-327.	1.2	24

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19	Modulation of cell attachment and collagen production of anterior cruciate ligament cells via submicron grooves/ridges structures with different cell affinity. Biotechnology and Bioengineering, 2013, 110, 327-337.	1.7	30
20	Effects of Wavy Microgroove Structure on Ligament Fibroblast Cell and Nuclear Morphology. , 2013, , .		0
21	Spatial Actin Structure Does Not Correlate With Nuclear Organization. , 2013, , .		0
22	Temporal Cell Morphology Responses to Mechanical Stimulation. , 2012, , .		0
23	Decrimping: The first stage of collagen thermal denaturation unraveled by in situ second-harmonic-generation imaging. Applied Physics Letters, 2011, 98, 153703.	1.5	7
24	Micro and Nanotechnologies for Tissue Engineering. , 2011, , 139-178.		1
25	Spatial regulation of human mesenchymal stem cell differentiation in engineered osteochondral constructs: effects of pre-differentiation, soluble factors and medium perfusion. Osteoarthritis and Cartilage, 2010, 18, 714-723.	0.6	99
26	Silk hydrogel for cartilage tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2010, 95B, 84-90.	1.6	167
27	Effect of Solvent on Electrospun PLLA Fiber Mechanical Characteristics and Ligament Fibroblast Responses. , 2010, , .		0
28	Electrical stimulation systems for cardiac tissue engineering. Nature Protocols, 2009, 4, 155-173.	5.5	463
29	Alignment and elongation of human adipose-derived stem cells in response to direct-current electrical stimulation. , 2009, 2009, 6517-21.		44
30	The effect of devitalized trabecular bone on the formation of osteochondral tissue-engineered constructs. Biomaterials, 2008, 29, 4292-4299.	5.7	37
31	Dependence of Zonal Chondrocyte Water Transport Properties on Osmotic Environment. Cellular and Molecular Bioengineering, 2008, 1, 339-348.	1.0	39
32	Engineering custom-designed osteochondral tissue grafts. Trends in Biotechnology, 2008, 26, 181-189.	4.9	133
33	Effects of Initial Seeding Density and Fluid Perfusion Rate on Formation of Tissue-Engineered Bone. Tissue Engineering - Part A, 2008, 14, 1809-1820.	1.6	213
34	Effects of Applied DC Electric Field on Ligament Fibroblast Migration and Wound Healing. Connective Tissue Research, 2007, 48, 188-197.	1.1	75
35	Electric fieldâ€induced polarization of charged cell surface proteins does not determine the direction of galvanotaxis. Cytoskeleton, 2007, 64, 833-846.	4.4	45
36	Engineering cartilage and bone using human mesenchymal stem cells. Journal of Orthopaedic Science, 2007, 12, 398-404.	0.5	50

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37	The Role of Microtubule Organization in Chondrocyte Response to Osmotic Loading. , 2007, , .		0
38	Chondrocyte intracellular calcium, cytoskeletal organization, and gene expression responses to dynamic osmotic loading. American Journal of Physiology - Cell Physiology, 2006, 291, C718-C725.	2.1	109
39	Dynamic osmotic loading of chondrocytes using a novel microfluidic device. Journal of Biomechanics, 2005, 38, 1273-1281.	0.9	38
40	Roles of microtubules, cell polarity and adhesion in electric-field-mediated motility of 3T3 fibroblasts. Journal of Cell Science, 2004, 117, 1533-1545.	1.2	77
41	Time-dependent aggrecan gene expression of articular chondrocytes in response to hyperosmotic loading. Osteoarthritis and Cartilage, 2001, 9, 761-770.	0.6	39
42	Mitogen-activated protein kinase signaling in bovine articular chondrocytes in response to fluid flow does not require calcium mobilization. Journal of Biomechanics, 2000, 33, 73-80.	0.9	107
43	Chondrocyte Translocation Response to Direct Current Electric Fields. Journal of Biomechanical Engineering, 2000, 122, 261-267.	0.6	71
44	Functional Tissue Engineering of Articular Cartilage Through Dynamic Loading of Chondrocyte-Seeded Agarose Gels. Journal of Biomechanical Engineering, 2000, 122, 252-260.	0.6	836