

Pen-Hsiu Grace Chao

List of Publications by Year in descending order

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44
papers

3,436
citations

218677
26
h-index

330143
37
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45
all docs

45
docs citations

45
times ranked

4485
citing authors

#	ARTICLE	IF	CITATIONS
1	Deformation of the nucleus by TGF β 1 via the remodeling of nuclear envelope and histone isoforms. <i>Epigenetics and Chromatin</i> , 2022, 15, 1.	3.9	11
2	3D-Printed Collagen-Based Waveform Microfibrous Scaffold for Periodontal Ligament Reconstruction. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7725.	4.1	12
3	Chemical Optimization for Functional Ligament Tissue Engineering. <i>Tissue Engineering - Part A</i> , 2020, 26, 102-110.	3.1	9
4	Aberrant mechanosensing in injured intervertebral discs as a result of boundary-constraint disruption and residual-strain loss. <i>Nature Biomedical Engineering</i> , 2019, 3, 998-1008.	22.5	58
5	Defined cell adhesion for silicon-based implant materials by using vapor-deposited functional coatings. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 175, 545-553.	5.0	2
6	Crimped Electrospun Fibers for Tissue Engineering. <i>Methods in Molecular Biology</i> , 2018, 1758, 151-159.	0.9	4
7	Stem cell delivery in tissue-specific hydrogel enabled meniscal repair in an orthotopic rat model. <i>Biomaterials</i> , 2017, 132, 59-71.	11.4	79
8	Crimped Nanofibrous Biomaterials Mimic Microstructure and Mechanics of Native Tissue and Alter Strain Transfer to Cells. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 2869-2876.	5.2	41
9	Lipid rafts sense and direct electric field-induced migration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 8568-8573.	7.1	71
10	Endothelial Cells Enhance the Migration of Bovine Meniscus Cells. <i>Arthritis and Rheumatology</i> , 2015, 67, 182-192.	5.6	15
11	Silk microfiber-reinforced silk hydrogel composites for functional cartilage tissue repair. <i>Acta Biomaterialia</i> , 2015, 11, 27-36.	8.3	220
12	Micro-composite substrates for the study of cell-matrix mechanical interactions. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 38, 232-241.	3.1	22
13	Electrospun microcrimped fibers with nonlinear mechanical properties enhance ligament fibroblast phenotype. <i>Biofabrication</i> , 2014, 6, 035008.	7.1	33
14	Spinal Traction Promotes Molecular Transportation in a Simulated Degenerative Intervertebral Disc Model. <i>Spine</i> , 2014, 39, E550-E556.	2.0	18
15	Electrical stimulation enhances cell migration and integrative repair in the meniscus. <i>Scientific Reports</i> , 2014, 4, 3674.	3.3	82
16	Transient hypoxia improves matrix properties in tissue engineered cartilage. <i>Journal of Orthopaedic Research</i> , 2013, 31, 544-553.	2.3	16
17	The influence and interactions of substrate thickness, organization and dimensionality on cell morphology and migration. <i>Acta Biomaterialia</i> , 2013, 9, 5502-5510.	8.3	34
18	α 2 β 1 integrin and RhoA mediates electric field-induced ligament fibroblast migration directionality. <i>Journal of Orthopaedic Research</i> , 2013, 31, 322-327.	2.3	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.	3.3	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.	3.3	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.	1.3	99
26	Silk hydrogel for cartilage tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2010, 95B, 84-90.	3.4	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.	12.0	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.	11.4	37
31	Dependence of Zonal Chondrocyte Water Transport Properties on Osmotic Environment. Cellular and Molecular Bioengineering, 2008, 1, 339-348.	2.1	39
32	Engineering custom-designed osteochondral tissue grafts. Trends in Biotechnology, 2008, 26, 181-189.	9.3	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.	3.1	213
34	Effects of Applied DC Electric Field on Ligament Fibroblast Migration and Wound Healing. Connective Tissue Research, 2007, 48, 188-197.	2.3	75
35	Electric field-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.	1.1	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.	4.6	109
39	Dynamic osmotic loading of chondrocytes using a novel microfluidic device. Journal of Biomechanics, 2005, 38, 1273-1281.	2.1	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.	2.0	77
41	Time-dependent aggrecan gene expression of articular chondrocytes in response to hyperosmotic loading. Osteoarthritis and Cartilage, 2001, 9, 761-770.	1.3	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.	2.1	107
43	Chondrocyte Translocation Response to Direct Current Electric Fields. Journal of Biomechanical Engineering, 2000, 122, 261-267.	1.3	71
44	Functional Tissue Engineering of Articular Cartilage Through Dynamic Loading of Chondrocyte-Seeded Agarose Gels. Journal of Biomechanical Engineering, 2000, 122, 252-260.	1.3	836