Kyriacos A Athanasiou

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.

251 papers	14,573 citations	64 h-index	112 g-index
258 ext. papers	16,507 ext. citations	5.6 avg, IF	6.98 L-index

#	Paper	IF	Citations
251	Unlike bone, cartilage regeneration remains elusive. *Science*, **2012**, 338, 917-21	33.3	694
250	Repair and tissue engineering techniques for articular cartilage. *Nature Reviews Rheumatology*, **2015**, 11, 21-34	8.1	663
249	The knee meniscus: structure-function, pathophysiology, current repair techniques, and prospects for regeneration. *Biomaterials*, **2011**, 32, 7411-31	15.6	597
248	Interspecies comparisons of in situ intrinsic mechanical properties of distal femoral cartilage. *Journal of Orthopaedic Research*, **1991**, 9, 330-40	3.8	586
247	Rapid phenotypic changes in passaged articular chondrocyte subpopulations. *Journal of Orthopaedic Research*, **2005**, 23, 425-32	3.8	475
246	Biphasic indentation of articular cartilage--II. A numerical algorithm and an experimental study. *Journal of Biomechanics*, **1989**, 22, 853-61	2.9	402
245	The role of tissue engineering in articular cartilage repair and regeneration. *Critical Reviews in Biomedical Engineering*, **2009**, 37, 1-57	1.1	274
244	Comparative study of the intrinsic mechanical properties of the human acetabular and femoral head cartilage. *Journal of Orthopaedic Research*, **1994**, 12, 340-9	3.8	269
243	Extracellular matrix cell adhesion peptides: functional applications in orthopedic materials. *Tissue Engineering*, **2000**, 6, 85-103		249
242	Cell-based tissue engineering strategies used in the clinical repair of articular cartilage. *Biomaterials* , **2016**, 98, 1-22	15.6	242
241	A self-assembling process in articular cartilage tissue engineering. *Tissue Engineering*, **2006**, 12, 969-79		221
240	Fundamentals of biomechanics in tissue engineering of bone. *Tissue Engineering*, **2000**, 6, 361-81		210
239	Hydrostatic pressure in articular cartilage tissue engineering: from chondrocytes to tissue regeneration. *Tissue Engineering - Part B: Reviews*, **2009**, 15, 43-53	7.9	179
238	Surgical and tissue engineering strategies for articular cartilage and meniscus repair. *Nature Reviews Rheumatology*, **2019**, 15, 550-570	8.1	178
237	Intraspecies and interspecies comparison of the compressive properties of the medial meniscus. *Annals of Biomedical Engineering*, **2004**, 32, 1569-79	4.7	176
236	Toward tissue engineering of the knee meniscus. *Tissue Engineering*, **2001**, 7, 111-29		176
235	Design characteristics for the tissue engineering of cartilaginous tissues. *Annals of Biomedical Engineering*, **2004**, 32, 2-17	4.7	165

234	Extraction techniques for the decellularization of tissue engineered articular cartilage constructs. *Biomaterials*, **2009**, 30, 3749-56	15.6	152
233	Temporomandibular disorders: a review of etiology, clinical management, and tissue engineering strategies. *International Journal of Oral and Maxillofacial Implants*, **2013**, 28, e393-414	2.8	149
232	Biomechanical topography of human ankle cartilage. *Annals of Biomedical Engineering*, **1995**, 23, 697-704	4.7	149
231	Cytoindentation for obtaining cell biomechanical properties. *Journal of Orthopaedic Research*, **1999**, 17, 880-90	3.8	132
230	Self-organization and the self-assembling process in tissue engineering. *Annual Review of Biomedical Engineering*, **2013**, 15, 115-36	12	131
229	Viscoelastic characterization of the porcine temporomandibular joint disc under unconfined compression. *Journal of Biomechanics*, **2006**, 39, 312-22	2.9	125
228	Hypoxic chondrogenic differentiation of human embryonic stem cells enhances cartilage protein synthesis and biomechanical functionality. *Osteoarthritis and Cartilage*, **2008**, 16, 1450-6	6.2	123
227	Structure and function of the temporomandibular joint disc: implications for tissue engineering. *Journal of Oral and Maxillofacial Surgery*, **2003**, 61, 494-506	1.8	117
226	Creep indentation of single cells. *Journal of Biomechanical Engineering*, **2003**, 125, 334-41	2.1	114
225	Advances in tissue engineering through stem cell-based co-culture. *Journal of Tissue Engineering and Regenerative Medicine*, **2015**, 9, 488-503	4.4	111
224	Matrix development in self-assembly of articular cartilage. *PLoS ONE*, **2008**, 3, e2795	3.7	111
223	Companion animals: Translational scientistʼs new best friends. *Science Translational Medicine*, **2015**, 7, 308ps21	17.5	109
222	Success rates and immunologic responses of autogenic, allogenic, and xenogenic treatments to repair articular cartilage defects. *Tissue Engineering - Part B: Reviews*, **2009**, 15, 1-15	7.9	109
221	TGF-β1, GDF-5, and BMP-2 stimulation induces chondrogenesis in expanded human articular chondrocytes and marrow-derived stromal cells. *Stem Cells*, **2015**, 33, 762-73	5.8	107
220	Biomechanical Properties of Hip Cartilage in Experimental Animal Models. *Clinical Orthopaedics and Related Research*, **1995**, &NA;, 254-266	2.2	106
219	Synergistic and additive effects of hydrostatic pressure and growth factors on tissue formation. *PLoS ONE*, **2008**, 3, e2341	3.7	105
218	Seeding techniques and scaffolding choice for tissue engineering of the temporomandibular joint disk. *Tissue Engineering*, **2004**, 10, 1787-95		99
217	Developing an articular cartilage decellularization process toward facet joint cartilage replacement. *Neurosurgery*, **2010**, 66, 722-7; discussion 727	3.2	98

216	Unconfined creep compression of chondrocytes. *Journal of Biomechanics*, **2005**, 38, 77-85	2.9	98
215	Biomechanical strategies for articular cartilage regeneration. *Annals of Biomedical Engineering*, **2003**, 31, 1114-24	4.7	97
214	Engineering lubrication in articular cartilage. *Tissue Engineering - Part B: Reviews*, **2012**, 18, 88-100	7.9	95
213	Quantitative analysis and comparative regional investigation of the extracellular matrix of the porcine temporomandibular joint disc. *Matrix Biology*, **2005**, 24, 45-57	11.4	94
212	Assessment of a bovine co-culture, scaffold-free method for growing meniscus-shaped constructs. *Tissue Engineering*, **2007**, 13, 2195-205		93
211	Developing functional musculoskeletal tissues through hypoxia and lysyl oxidase-induced collagen cross-linking. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E4832-41	11.5	90
210	Tensile properties of the porcine temporomandibular joint disc. *Journal of Biomechanical Engineering*, **2003**, 125, 558-65	2.1	90
209	Tissue engineering with chondrogenically differentiated human embryonic stem cells. *Stem Cells*, **2007**, 25, 2183-90	5.8	88
208	The effects of intermittent hydrostatic pressure on self-assembled articular cartilage constructs. *Tissue Engineering*, **2006**, 12, 1337-44		86
207	Emergence of scaffold-free approaches for tissue engineering musculoskeletal cartilages. *Annals of Biomedical Engineering*, **2015**, 43, 543-54	4.7	83
206	An interspecies comparison of the temporomandibular joint disc. *Journal of Dental Research*, **2011**, 90, 193-8	8.1	83
205	Motivation, characterization, and strategy for tissue engineering the temporomandibular joint disc. *Tissue Engineering*, **2003**, 9, 1065-87		83
204	Chondrogenic differentiation of adult dermal fibroblasts. *Annals of Biomedical Engineering*, **2004**, 32, 50-6	4.7	82
203	Growth factor impact on articular cartilage subpopulations. *Cell and Tissue Research*, **2005**, 322, 463-73	4.2	82
202	A Modified Hydroxyproline Assay Based on Hydrochloric Acid in Ehrlich's Solution Accurately Measures Tissue Collagen Content. *Tissue Engineering - Part C: Methods*, **2017**, 23, 243-250	2.9	79
201	Growth factors and fibrochondrocytes in scaffolds. *Journal of Orthopaedic Research*, **2005**, 23, 1184-90	3.8	78
200	Contribution of the cytoskeleton to the compressive properties and recovery behavior of single cells. *Biophysical Journal*, **2009**, 97, 1873-82	2.9	75
199	Systematic assessment of growth factor treatment on biochemical and biomechanical properties of engineered articular cartilage constructs. *Osteoarthritis and Cartilage*, **2009**, 17, 114-23	6.2	73

198	Biomechanical Topography of Human Articular Cartilage in the First Metatarsophalangeal Joint. *Clinical Orthopaedics and Related Research*, **1998**, 348, 269???281	2.2	73
197	Tensile properties, collagen content, and crosslinks in connective tissues of the immature knee joint. *PLoS ONE*, **2011**, 6, e26178	3.7	72
196	Maturational growth of self-assembled, functional menisci as a result of TGF-□1 and enzymatic chondroitinase-ABC stimulation. *Biomaterials*, **2011**, 32, 2052-8	15.6	72
195	Fibrochondrogenesis of hESCs: growth factor combinations and cocultures. *Stem Cells and Development*, **2009**, 18, 283-92	4.4	70
194	Effects of growth factors on meniscal fibrochondrocytes. *Tissue Engineering*, **2005**, 11, 1141-8		69
193	Biodegradable Implants for the Treatment of Osteochondral Defects in a Goat Model. *Tissue Engineering*, **1997**, 3, 363-373		67
192	Evaluation of three growth factors for TMJ disc tissue engineering. *Annals of Biomedical Engineering*, **2005**, 33, 383-90	4.7	67
191	Collagens of articular cartilage: structure, function, and importance in tissue engineering. *Critical Reviews in Biomedical Engineering*, **2007**, 35, 363-411	1.1	65
190	Chondroitinase ABC treatment results in greater tensile properties of self-assembled tissue-engineered articular cartilage. *Tissue Engineering - Part A*, **2009**, 15, 3119-28	3.9	64
189	Cell type and distribution in the porcine temporomandibular joint disc. *Journal of Oral and Maxillofacial Surgery*, **2006**, 64, 243-8	1.8	64
188	Passage and reversal effects on gene expression of bovine meniscal fibrochondrocytes. *Arthritis Research and Therapy*, **2007**, 9, R93	5.7	63
187	Effects of initial cell seeding density for the tissue engineering of the temporomandibular joint disc. *Annals of Biomedical Engineering*, **2005**, 33, 943-50	4.7	62
186	Computed tomographic findings in dogs and cats with temporomandibular joint disorders: 58 cases (2006-2011). *Journal of the American Veterinary Medical Association*, **2013**, 242, 69-75	1	61
185	Tissue Engineering of the TMJ disc: a review. *Tissue Engineering*, **2006**, 12, 1183-96		61
184	Temporal effects of impact on articular cartilage cell death, gene expression, matrix biochemistry, and biomechanics. *Annals of Biomedical Engineering*, **2008**, 36, 780-92	4.7	58
183	Self-assembly of fibrochondrocytes and chondrocytes for tissue engineering of the knee meniscus. *Tissue Engineering*, **2007**, 13, 939-46		58
182	Effects of TGF-beta1 and hydrostatic pressure on meniscus cell-seeded scaffolds. *Biomaterials*, **2009**, 30, 565-73	15.6	57
181	Development of the cytodetachment technique to quantify mechanical adhesiveness of the single cell. *Biomaterials*, **1999**, 20, 2405-15	15.6	56

180	Biological augmentation and tissue engineering approaches in meniscus surgery. *Arthroscopy - Journal of Arthroscopic and Related Surgery*, **2015**, 31, 944-55	5.4	55
179	Combined use of chondroitinase-ABC, TGF-β1, and collagen crosslinking agent lysyl oxidase to engineer functional neotissues for fibrocartilage repair. *Biomaterials*, **2014**, 35, 6787-96	15.6	54
178	Effects of multiple chondroitinase ABC applications on tissue engineered articular cartilage. *Journal of Orthopaedic Research*, **2009**, 27, 949-56	3.8	54
177	Tension-compression loading with chemical stimulation results in additive increases to functional properties of anatomic meniscal constructs. *PLoS ONE*, **2011**, 6, e27857	3.7	53
176	Effects of temporal hydrostatic pressure on tissue-engineered bovine articular cartilage constructs. *Tissue Engineering - Part A*, **2009**, 15, 1151-8	3.9	52
175	Biochemical analysis of the porcine temporomandibular joint disc. *British Journal of Oral and Maxillofacial Surgery*, **2006**, 44, 124-8	1.4	52
174	Effects of growth factors on temporomandibular joint disc cells. *Archives of Oral Biology*, **2004**, 49, 577-83	2.8	52
173	A surface-regional and freeze-thaw characterization of the porcine temporomandibular joint disc. *Annals of Biomedical Engineering*, **2005**, 33, 951-62	4.7	51
172	A Guide for Using Mechanical Stimulation to Enhance Tissue-Engineered Articular Cartilage Properties. *Tissue Engineering - Part B: Reviews*, **2018**, 24, 345-358	7.9	50
171	Hypoxia-induced collagen crosslinking as a mechanism for enhancing mechanical properties of engineered articular cartilage. *Osteoarthritis and Cartilage*, **2013**, 21, 634-41	6.2	50
170	Engineering the Knee Meniscus **2009**, 1, 1-97		50
169	Articular cartilage tissue engineering: the role of signaling molecules. *Cellular and Molecular Life Sciences*, **2016**, 73, 1173-94	10.3	49
168	Biomechanics-driven chondrogenesis: from embryo to adult. *FASEB Journal*, **2012**, 26, 3614-24	0.9	49
167	Effects of hydrostatic pressure on TMJ disc cells. *Tissue Engineering*, **2006**, 12, 1285-94		49
166	Tension stimulation drives tissue formation in scaffold-free systems. *Nature Materials*, **2017**, 16, 864-873	27	48
165	Stepwise solubilization-based antigen removal for xenogeneic scaffold generation in tissue engineering. *Acta Biomaterialia*, **2013**, 9, 6492-501	10.8	48
164	Regional variation in the mechanical role of knee meniscus glycosaminoglycans. *Journal of Applied Physiology*, **2011**, 111, 1590-6	3.7	48
163	Exercise affects the mechanical properties and histological appearance of equine articular cartilage. *Journal of Orthopaedic Research*, **1999**, 17, 725-31	3.8	47

162	Assessment of growth factor treatment on fibrochondrocyte and chondrocyte co-cultures for TMJ fibrocartilage engineering. *Acta Biomaterialia*, **2011**, 7, 1710-8	10.8	46
161	Use of a rotating bioreactor toward tissue engineering the temporomandibular joint disc. *Tissue Engineering*, **2005**, 11, 1188-97		46
160	Tissue engineering toward temporomandibular joint disc regeneration. *Science Translational Medicine*, **2018**, 10,	17.5	45
159	A chondroitinase-ABC and TGF-β1 treatment regimen for enhancing the mechanical properties of tissue-engineered fibrocartilage. *Acta Biomaterialia*, **2013**, 9, 4626-34	10.8	45
158	Cartilage immunoprivilege depends on donor source and lesion location. *Acta Biomaterialia*, **2015**, 23, 72-81	10.8	45
157	Biomechanical properties of hip cartilage in experimental animal models. *Clinical Orthopaedics and Related Research*, **1995**, 254-66	2.2	45
156	Mechanisms underlying the synergistic enhancement of self-assembled neocartilage treated with chondroitinase-ABC and TGF-β1. *Biomaterials*, **2012**, 33, 3187-94	15.6	43
155	A copper sulfate and hydroxylysine treatment regimen for enhancing collagen cross-linking and biomechanical properties in engineered neocartilage. *FASEB Journal*, **2013**, 27, 2421-30	0.9	43
154	Effects of confinement on the mechanical properties of self-assembled articular cartilage constructs in the direction orthogonal to the confinement surface. *Journal of Orthopaedic Research*, **2008**, 26, 238-46	3.8	43
153	Fibrochondrogenesis in two embryonic stem cell lines: effects of differentiation timelines. *Stem Cells*, **2008**, 26, 422-30	5.8	42
152	Engineering functional anisotropy in fibrocartilage neotissues. *Biomaterials*, **2013**, 34, 9980-9	15.6	41
151	Mechanical characterization of differentiated human embryonic stem cells. *Journal of Biomechanical Engineering*, **2009**, 131, 061011	2.1	41
150	Static compression of single chondrocytes catabolically modifies single-cell gene expression. *Biophysical Journal*, **2008**, 94, 2412-22	2.9	41
149	Evaluation of three growth factors in combinations of two for temporomandibular joint disc tissue engineering. *Archives of Oral Biology*, **2006**, 51, 215-21	2.8	41
148	Antigen removal for the production of biomechanically functional, xenogeneic tissue grafts. *Journal of Biomechanics*, **2014**, 47, 1987-96	2.9	39
147	Dermis isolated adult stem cells for cartilage tissue engineering. *Biomaterials*, **2012**, 33, 109-19	15.6	39
146	Traumatic loading of articular cartilage: Mechanical and biological responses and post-injury treatment. *Biorheology*, **2009**, 46, 451-85	1.7	39
145	Effects of initial cell seeding in self assembly of articular cartilage. *Annals of Biomedical Engineering*, **2008**, 36, 1441-8	4.7	39

144	The Self-Assembling Process and Applications in Tissue Engineering. *Cold Spring Harbor Perspectives in Medicine*, **2017**, 7,	5.4	38
143	Scaffold and growth factor selection in temporomandibular joint disc engineering. *Journal of Dental Research*, **2008**, 87, 180-5	8.1	38
142	The role of protein solubilization in antigen removal from xenogeneic tissue for heart valve tissue engineering. *Biomaterials*, **2011**, 32, 8129-38	15.6	37
141	The effects of intra-articular methylprednisolone and exercise on the mechanical properties of articular cartilage in the horse. *Osteoarthritis and Cartilage*, **1998**, 6, 106-14	6.2	37
140	The effects of TGF-beta1 and IGF-I on the biomechanics and cytoskeleton of single chondrocytes. *Osteoarthritis and Cartilage*, **2006**, 14, 1227-36	6.2	37
139	Dynamic compression of single cells. *Osteoarthritis and Cartilage*, **2007**, 15, 328-34	6.2	36
138	Effect of passage and topography on gene expression of temporomandibular joint disc cells. *Tissue Engineering*, **2007**, 13, 101-10		36
137	Articular Cartilage Tissue Engineering **2009**, 1, 1-182		34
136	A comparison of primary and passaged chondrocytes for use in engineering the temporomandibular joint. *Archives of Oral Biology*, **2009**, 54, 138-45	2.8	34
135	Intracellular Na(+) and Ca(2+) modulation increases the tensile properties of developing engineered articular cartilage. *Arthritis and Rheumatism*, **2010**, 62, 1097-107		34
134	Growth factor effects on costal chondrocytes for tissue engineering fibrocartilage. *Cell and Tissue Research*, **2008**, 333, 439-47	4.2	34
133	Tensile and compressive properties of the medial rabbit meniscus. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2005**, 219, 337-47	1.7	34
132	Recent Tissue Engineering Advances for the Treatment of Temporomandibular Joint Disorders. *Current Osteoporosis Reports*, **2016**, 14, 269-279	5.4	33
131	Clinically relevant cell sources for TMJ disc engineering. *Journal of Dental Research*, **2008**, 87, 548-52	8.1	32
130	A direct compression stimulator for articular cartilage and meniscal explants. *Annals of Biomedical Engineering*, **2006**, 34, 1463-74	4.7	32
129	Gene expression of single articular chondrocytes. *Cell and Tissue Research*, **2007**, 327, 43-54	4.2	32
128	Conceptual Ecology of the Evolution Acceptance among Greek Education Students: Knowledge, religious practices and social influences. *International Journal of Science Education*, **2012**, 34, 903-924	2.2	31
127	Isolation and chondroinduction of a dermis-isolated, aggrecan-sensitive subpopulation with high chondrogenic potential. *Arthritis and Rheumatism*, **2007**, 56, 168-76		31

126	Mutagenic and clastogenic effects of organic extracts from the Athenian drinking water. *Science of the Total Environment*, **1983**, 27, 113-20	10.2	31
125	The application of 3-dimensional printing for preoperative planning in oral and maxillofacial surgery in dogs and cats. *Veterinary Surgery*, **2017**, 46, 942-951	1.7	30
124	Identification of potential biophysical and molecular signalling mechanisms underlying hyaluronic acid enhancement of cartilage formation. *Journal of the Royal Society Interface*, **2012**, 9, 3564-73	4.1	30
123	Additive and synergistic effects of bFGF and hypoxia on leporine meniscus cell-seeded PLLA scaffolds. *Journal of Tissue Engineering and Regenerative Medicine*, **2010**, 4, 115-22	4.4	30
122	Passaged goat costal chondrocytes provide a feasible cell source for temporomandibular joint tissue engineering. *Annals of Biomedical Engineering*, **2008**, 36, 1992-2001	4.7	30
121	Effects of aging and dietary restriction on the structural integrity of rat articular cartilage. *Annals of Biomedical Engineering*, **2000**, 28, 143-9	4.7	30
120	Collagen: quantification, biomechanics, and role of minor subtypes in cartilage. *Nature Reviews Materials*, **2020**, 5, 730-747	73.3	30
119	Harnessing biomechanics to develop cartilage regeneration strategies. *Journal of Biomechanical Engineering*, **2015**, 137, 020901	2.1	28
118	Enhancing post-expansion chondrogenic potential of costochondral cells in self-assembled neocartilage. *PLoS ONE*, **2013**, 8, e56983	3.7	27
117	The regional contribution of glycosaminoglycans to temporomandibular joint disc compressive properties. *Journal of Biomechanical Engineering*, **2012**, 134, 011011	2.1	27
116	Creating a spectrum of fibrocartilages through different cell sources and biochemical stimuli. *Biotechnology and Bioengineering*, **2008**, 100, 587-98	4.9	27
115	Facet Joints of the Spine: Structure-Function Relationships, Problems and Treatments, and the Potential for Regeneration. *Annual Review of Biomedical Engineering*, **2018**, 20, 145-170	12	26
114	The Knee Meniscus: A Complex Tissue of Diverse Cells. *Cellular and Molecular Bioengineering*, **2009**, 2, 332-340	3.9	26
113	Concise Review: Human Dermis as an Autologous Source of Stem Cells for Tissue Engineering and Regenerative Medicine. *Stem Cells Translational Medicine*, **2015**, 4, 1187-98	6.9	25
112	Transforming growth factor Induced superficial zone protein accumulation in the surface zone of articular cartilage is dependent on the cytoskeleton. *Tissue Engineering - Part A*, **2014**, 20, 921-9	3.9	25
111	Mechanical impact and articular cartilage. *Critical Reviews in Biomedical Engineering*, **2006**, 34, 347-78	1.1	25
110	Effects of co-cultures of meniscus cells and articular chondrocytes on PLLA scaffolds. *Biotechnology and Bioengineering*, **2009**, 103, 808-16	4.9	24
109	Toward tissue-engineering of nasal cartilages. *Acta Biomaterialia*, **2019**, 88, 42-56	10.8	23

108	Clinical translation of stem cells: insight for cartilage therapies. *Critical Reviews in Biotechnology*, **2014**, 34, 89-100	9.4	23
107	TRPV4 channel activation improves the tensile properties of self-assembled articular cartilage constructs. *Acta Biomaterialia*, **2013**, 9, 5554-61	10.8	23
106	Engineering a fibrocartilage spectrum through modulation of aggregate redifferentiation. *Cell Transplantation*, **2015**, 24, 235-45	4	22
105	Effects of agarose mould compliance and surface roughness on self-assembled meniscus-shaped constructs. *Journal of Tissue Engineering and Regenerative Medicine*, **2009**, 3, 521-30	4.4	22
104	Conceptual Inventory of Natural Selection as a Tool for Measuring Greek University StudentsP Evolution Knowledge: Differences between novice and advanced students. *International Journal of Science Education*, **2014**, 36, 1262-1285	2.2	21
103	Cartilage tissue engineering using dermis isolated adult stem cells: the use of hypoxia during expansion versus chondrogenic differentiation. *PLoS ONE*, **2014**, 9, e98570	3.7	21
102	Building an anisotropic meniscus with zonal variations. *Tissue Engineering - Part A*, **2014**, 20, 294-302	3.9	21
101	Tensile characterization of porcine temporomandibular joint disc attachments. *Journal of Dental Research*, **2013**, 92, 753-8	8.1	21
100	Immunogenicity of bovine and leporine articular chondrocytes and meniscus cells. *Tissue Engineering - Part A*, **2012**, 18, 568-75	3.9	21
99	Design characteristics for temporomandibular joint disc tissue engineering: learning from tendon and articular cartilage. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2007**, 221, 509-26	1.7	21
98	Alteration of the fibrocartilaginous nature of scaffoldless constructs formed from leporine meniscus cells and chondrocytes through manipulation of culture and processing conditions. *Cells Tissues Organs*, **2013**, 197, 360-71	2.1	20
97	Strain-dependent recovery behavior of single chondrocytes. *Biomechanics and Modeling in Mechanobiology*, **2006**, 5, 172-9	3.8	20
96	Improving culture conditions for temporomandibular joint disc tissue engineering. *Cells Tissues Organs*, **2007**, 185, 246-57	2.1	20
95	Surface zone articular chondrocytes modulate the bulk and surface mechanical properties of the tissue-engineered cartilage. *Tissue Engineering - Part A*, **2014**, 20, 3332-41	3.9	19
94	The distribution of superficial zone protein (SZP)/lubricin/PRG4 and boundary mode frictional properties of the bovine diarthrodial joint. *Journal of Biomechanics*, **2015**, 48, 3406-12	2.9	19
93	Development of serum-free, chemically defined conditions for human embryonic stem cell-derived fibrochondrogenesis. *Tissue Engineering - Part A*, **2009**, 15, 2249-57	3.9	19
92	Osteochondral repair of primate knee femoral and patellar articular surfaces: implications for preventing post-traumatic osteoarthritis. *Iowa orthopaedic journal, The*, **2003**, 23, 66-74	1.1	19
91	The Yucatan Minipig Temporomandibular Joint Disc Structure-Function Relationships Support Its Suitability for Human Comparative Studies. *Tissue Engineering - Part C: Methods*, **2017**, 23, 700-709	2.9	19

90	Biomechanical topography of human articular cartilage in the first metatarsophalangeal joint. *Clinical Orthopaedics and Related Research*, **1998**, 269-81	2.2	19
89	A Comparison of Bone Marrow and Cord Blood Mesenchymal Stem Cells for Cartilage Self-Assembly. *Tissue Engineering - Part A*, **2018**, 24, 1262-1272	3.9	18
88	Characterization of costal cartilage and its suitability as a cell source for articular cartilage tissue engineering. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 1163-1176	4.4	18
87	Effects of TGF-beta1 and IGF-I on the compressibility, biomechanics, and strain-dependent recovery behavior of single chondrocytes. *Journal of Biomechanics*, **2008**, 41, 1044-52	2.9	18
86	Biomechanical evaluation of suture-holding properties of native and tissue-engineered articular cartilage. *Biomechanics and Modeling in Mechanobiology*, **2015**, 14, 73-81	3.8	17
85	Chondrogenically tuned expansion enhances the cartilaginous matrix-forming capabilities of primary, adult, leporine chondrocytes. *Cell Transplantation*, **2013**, 22, 331-40	4	17
84	Effects of hydrostatic pressure on leporine meniscus cell-seeded PLLA scaffolds. *Journal of Biomedical Materials Research - Part A*, **2010**, 92, 896-905	5.4	17
83	Nondestructive assessment of collagen hydrogel cross-linking using time-resolved autofluorescence imaging. *Journal of Biomedical Optics*, **2018**, 23, 1-9	3.5	17
82	Effect of poly(ethylene glycol) molecular weight on tensile and swelling properties of oligo(poly(ethylene glycol) fumarate) hydrogels for cartilage tissue engineering **2002**, 59, 429		16
81	Using Costal Chondrocytes to Engineer Articular Cartilage with Applications of Passive Axial Compression and Bioactive Stimuli. *Tissue Engineering - Part A*, **2018**, 24, 516-526	3.9	15
80	Inducing articular cartilage phenotype in costochondral cells. *Arthritis Research and Therapy*, **2013**, 15, R214	5.7	15
79	BENEFICIAL EFFECTS OF EXOGENOUS CROSSLINKING AGENTS ON SELF-ASSEMBLED TISSUE ENGINEERED CARTILAGE CONSTRUCT BIOMECHANICAL PROPERTIES. *Journal of Mechanics in Medicine and Biology*, **2011**, 11, 433-443	0.7	15
78	Articular Cartilage		15
77	Biomechanics of meniscus cells: regional variation and comparison to articular chondrocytes and ligament cells. *Biomechanics and Modeling in Mechanobiology*, **2012**, 11, 1047-56	3.8	14
76	The effects of protein-coated surfaces on passaged porcine TMJ disc cells. *Archives of Oral Biology*, **2008**, 53, 53-9	2.8	14
75	Chondrocytes from different zones exhibit characteristic differences in high density culture. *Connective Tissue Research*, **2006**, 47, 133-40	3.3	14
74	Ammonium-Chloride-Potassium Lysing Buffer Treatment of Fully Differentiated Cells Increases Cell Purity and Resulting Neotissue Functional Properties. *Tissue Engineering - Part C: Methods*, **2016**, 22, 895-903	2.9	13
73	Enhancing the mechanical properties of engineered tissue through matrix remodeling via the signaling phospholipid lysophosphatidic acid. *Biochemical and Biophysical Research Communications*, **2013**, 433, 133-8	3.4	13

72	Engineering biomechanically functional neocartilage derived from expanded articular chondrocytes through the manipulation of cell-seeding density and dexamethasone concentration. *Journal of Tissue Engineering and Regenerative Medicine*, **2017**, 11, 2323-2332	4.4	12
71	Neocartilage integration in temporomandibular joint discs: physical and enzymatic methods. *Journal of the Royal Society Interface*, **2015**, 12,	4.1	12
70	Initiation of Chondrocyte Self-Assembly Requires an Intact Cytoskeletal Network. *Tissue Engineering - Part A*, **2016**, 22, 318-25	3.9	12
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