

Lawrence J Bonassar

List of Publications by Year in Descending Order

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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.

255
papers

11,930
citations

59
h-index

98
g-index

273
ext. papers

13,310
ext. citations

5
avg, IF

6.4
L-index

#	Paper	IF	Citations
255	Innovative Biological Treatment Methods for Degenerative Disc Disease.. <i>World Neurosurgery</i> , 2022 , 157, 282-299	2.1	1
254	Structural origins of cartilage shear mechanics.. <i>Science Advances</i> , 2022 , 8, eabk2805	14.3	1
253	Intra-articular Hyaluronic Acid Injections 2022 , 109-122		
252	Mechanical performance of collagen gels is dependent on purity, α/β ratio, and telopeptides. <i>Journal of Biomedical Materials Research - Part A</i> , 2022 , 110, 11-20	5.4	4
251	The degenerative impact of hyperglycemia on the structure and mechanics of developing murine intervertebral discs.. <i>JOR Spine</i> , 2022 , 5, e1191	3.7	1
250	Off-the-Shelf Nipple Engineering: Neonipple Formation via Implantation of Scaffolded Decellularized Ovine Xenograft.. <i>Annals of Plastic Surgery</i> , 2022 , 88, S302-S308	1.7	
249	Rigidity and fracture of biopolymer double networks. <i>Soft Matter</i> , 2021 ,	3.6	2
248	Three-Dimensional-Printed External Scaffolds Mitigate Loss of Volume and Topography in Engineered Elastic Cartilage Constructs. <i>Cartilage</i> , 2021 , 19476035211049556	3	0
247	Depth-dependent patterns in shear modulus of temporomandibular joint cartilage correspond to tissue structure and anatomic location. <i>Journal of Biomechanics</i> , 2021 , 129, 110815	2.9	
246	Non-Destructive Spatial Mapping of Glycosaminoglycan Loss in Native and Degraded Articular Cartilage Using Confocal Raman Microspectroscopy. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021 , 9, 744197	5.8	0
245	Cartilage articulation exacerbates chondrocyte damage and death after impact injury. <i>Journal of Orthopaedic Research</i> , 2021 , 39, 2130-2140	3.8	2
244	Nipple Engineering: Maintaining Nipple Geometry with Externally Scaffolded Processed Autologous Costal Cartilage. <i>Journal of Plastic, Reconstructive and Aesthetic Surgery</i> , 2021 , 74, 2596-2603	1.7	2
243	Pathomechanism and Biomechanics of Degenerative Disc Disease: Features of Healthy and Degenerated Discs. <i>International Journal of Spine Surgery</i> , 2021 , 15, 10-25	1.4	2
242	The role of SLRPs and large aggregating proteoglycans in collagen fibrillogenesis, extracellular matrix assembly, and mechanical function of fibrocartilage. <i>Connective Tissue Research</i> , 2021 , 1-18	3.3	3
241	Targeting calcium-related mechanotransduction in early OA. <i>Nature Reviews Rheumatology</i> , 2021 , 17, 445-446	8.1	2
240	Combining TGF- β and Mechanical Anchoring to Enhance Collagen Fiber Formation and Alignment in Tissue-Engineered Menisci. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 1608-1620	5.5	3
239	The influence of chondrocyte source on the manufacturing reproducibility of human tissue engineered cartilage. <i>Acta Biomaterialia</i> , 2021 , 131, 276-285	10.8	

238	Microscale strain mapping demonstrates the importance of interface slope in the mechanics of cartilage repair. <i>Journal of Biomechanics</i> , 2021 , 114, 110159	2.9	4
237	Mineral Distribution Spatially Patterns Bone Marrow Stromal Cell Behavior on Monolithic Bone Scaffolds. <i>Acta Biomaterialia</i> , 2020 , 112, 274-285	10.8	10
236	Combined nucleus pulposus augmentation and annulus fibrosus repair prevents acute intervertebral disc degeneration after discectomy. <i>Science Translational Medicine</i> , 2020 , 12,	17.5	32
235	Multiscale mechanics of tissue-engineered cartilage grown from human chondrocytes and human-induced pluripotent stem cells. <i>Journal of Orthopaedic Research</i> , 2020 , 38, 1965-1973	3.8	5
234	Distinct tribological endotypes of pathological human synovial fluid reveal characteristic biomarkers and variation in efficacy of viscosupplementation at reducing local strains in articular cartilage. <i>Osteoarthritis and Cartilage</i> , 2020 , 28, 492-501	6.2	5
233	Effect of Lubricin Mimetics on the Inhibition of Osteoarthritis in a Rat Anterior Cruciate Ligament Transection Model. <i>American Journal of Sports Medicine</i> , 2020 , 48, 624-634	6.8	11
232	Integrin $\alpha 10$ -Selected Mesenchymal Stem Cells Mitigate the Progression of Osteoarthritis in an Equine Talar Impact Model. <i>American Journal of Sports Medicine</i> , 2020 , 48, 612-623	6.8	17
231	A Century of Cartilage Tribology Research Is Informing Lubrication Therapies. <i>Journal of Biomechanical Engineering</i> , 2020 , 142,	2.1	5
230	Inflammatory and Noninflammatory Synovial Fluids Exhibit New and Distinct Tribological Endotypes. <i>Journal of Biomechanical Engineering</i> , 2020 , 142,	2.1	2
229	Mitoprotective therapy prevents rapid, strain-dependent mitochondrial dysfunction after articular cartilage injury. <i>Journal of Orthopaedic Research</i> , 2020 , 38, 1257-1267	3.8	11
228	Influence of Block Length on Articular Cartilage Lubrication with a Diblock Bottle-Brush Copolymer. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 330-337	9.5	4
227	Imaging the local biochemical content of native and injured intervertebral disc using Fourier transform infrared microscopy. <i>JOR Spine</i> , 2020 , 3, e1121	3.7	0
226	Heterogeneous matrix deposition in human tissue engineered cartilage changes the local shear modulus and resistance to local construct buckling. <i>Journal of Biomechanics</i> , 2020 , 105, 109760	2.9	6
225	Interaction with Cartilage Increases the Viscosity of Hyaluronic Acid Solutions. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 2787-2795	5.5	7
224	Proteoglycan removal by chondroitinase ABC improves injectable collagen gel adhesion to annulus fibrosus. <i>Acta Biomaterialia</i> , 2019 , 97, 428-436	10.8	11
223	Regulation of proteoglycan production by varying glucose concentrations controls fiber formation in tissue engineered menisci. <i>Acta Biomaterialia</i> , 2019 , 100, 173-183	10.8	7
222	Stable recombinant production of codon-scrambled lubricin and mucin in human cells. <i>Biotechnology and Bioengineering</i> , 2019 , 116, 1292-1303	4.9	8
221	Boundary mode lubrication of articular cartilage with a biomimetic diblock copolymer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 12437-12441	11.5	18

220	Interfaces: Cellular and Chemical Gradients to Engineer the Meniscus-to-Bone Insertion (Adv. Healthcare Mater. 7/2019). <i>Advanced Healthcare Materials</i> , 2019 , 8, 1970027	10.1	
219	Top-down Fabrication of Spatially Controlled Mineral-Gradient Scaffolds for Interfacial Tissue Engineering. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 2988-2997	5.5	10
218	Frictional characterization of injectable hyaluronic acids is more predictive of clinical outcomes than traditional rheological or viscoelastic characterization. <i>PLoS ONE</i> , 2019 , 14, e0216702	3.7	15
217	Glycation of collagen matrices promotes breast tumor cell invasion. <i>Integrative Biology (United Kingdom)</i> , 2019 ,	3.7	12
216	Temporal changes in synovial fluid composition and elastoviscous lubrication in the equine carpal fracture model. <i>Journal of Orthopaedic Research</i> , 2019 , 37, 1071-1079	3.8	10
215	Understanding the Stiff-to-Compliant Transition of the Meniscal Attachments by Spatial Correlation of Composition, Structure, and Mechanics. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 26559-26570	9.5	16
214	High density cell seeding affects the rheology and printability of collagen bioinks. <i>Biofabrication</i> , 2019 , 11, 045016	10.5	46
213	Dynamics of Synovial Fluid Aggregation under Shear. <i>Langmuir</i> , 2019 , 35, 15887-15896	4	6
212	The clot thickens: Autologous and allogeneic fibrin sealants are mechanically equivalent in an ex vivo model of cartilage repair. <i>PLoS ONE</i> , 2019 , 14, e0224756	3.7	13
211	Stribeck Curve Analysis of Temporomandibular Joint Condylar Cartilage and Disc. <i>Journal of Biomechanical Engineering</i> , 2019 ,	2.1	2
210	Mesenchymal Stem Cell-Seeded High-Density Collagen Gel for Annular Repair: 6-Week Results From In Vivo Sheep Models. <i>Neurosurgery</i> , 2019 , 85, E350-E359	3.2	25
209	Measurement of local diffusion and composition in degraded articular cartilage reveals the unique role of surface structure in controlling macromolecular transport. <i>Journal of Biomechanics</i> , 2019 , 82, 38-45	2.9	8
208	Cellular and Chemical Gradients to Engineer the Meniscus-to-Bone Insertion. <i>Advanced Healthcare Materials</i> , 2019 , 8, e1800806	10.1	14
207	Mitoprotective therapy preserves chondrocyte viability and prevents cartilage degeneration in an ex vivo model of posttraumatic osteoarthritis. <i>Journal of Orthopaedic Research</i> , 2018 , 36, 2147	3.8	24
206	Clinical doses of radiation reduce collagen matrix stiffness. <i>APL Bioengineering</i> , 2018 , 2, 031901	6.6	21
205	Microscale frictional strains determine chondrocyte fate in loaded cartilage. <i>Journal of Biomechanics</i> , 2018 , 74, 72-78	2.9	31
204	Local and global measurements show that damage initiation in articular cartilage is inhibited by the surface layer and has significant rate dependence. <i>Journal of Biomechanics</i> , 2018 , 72, 63-70	2.9	11
203	Tissue Engineering Auricular Cartilage Using Late Passage Human Auricular Chondrocytes. <i>Annals of Plastic Surgery</i> , 2018 , 80, S168-S173	1.7	4

202	Annulus Fibrosus Repair Using High-Density Collagen Gel: An In Vivo Ovine Model. <i>Spine</i> , 2018 , 43, E208-E215	5.3	31
201	How can 50 years of solute transport data in articular cartilage inform the design of arthritis therapeutics?. <i>Osteoarthritis and Cartilage</i> , 2018 , 26, 1438-1446	6.2	12
200	In vivo annular repair using high-density collagen gel seeded with annulus fibrosus cells. <i>Acta Biomaterialia</i> , 2018 , 79, 230-238	10.8	26
199	Molecular transport in articular cartilage - what have we learned from the past 50 years?. <i>Nature Reviews Rheumatology</i> , 2018 , 14, 393-403	8.1	42
198	Mitochondrial dysfunction is an acute response of articular chondrocytes to mechanical injury. <i>Journal of Orthopaedic Research</i> , 2018 , 36, 739-750	3.8	24
197	Heat Shock Factor 1 Reprograms the DLBCL Microenvironment to Evade Immune Surveillance and Support Tumor Growth. <i>Blood</i> , 2018 , 132, 2854-2854	2.2	
196	The Effect of Charge and Mechanical Loading on Antibody Diffusion through the Articular Surface of Cartilage. <i>Journal of Biomechanical Engineering</i> , 2018 ,	2.1	3
195	Degradation alters the lubrication of articular cartilage by high viscosity, hyaluronic acid-based lubricants. <i>Journal of Orthopaedic Research</i> , 2018 , 36, 1456-1464	3.8	11
194	Biologic Annulus Fibrosus Repair: A Review of Preclinical In Vivo Investigations. <i>Tissue Engineering - Part B: Reviews</i> , 2018 , 24, 179-190	7.9	28
193	Resorbable plating system stabilizes tissue-engineered intervertebral discs implanted ex vivo in canine cervical spines. <i>JOR Spine</i> , 2018 , 1, e1031	3.7	5
192	Tissue engineering the human auricle by auricular chondrocyte-mesenchymal stem cell co-implantation. <i>PLoS ONE</i> , 2018 , 13, e0202356	3.7	18
191	The effect of hypoxia on thermosensitive poly(N-vinylcaprolactam) hydrogels with tunable mechanical integrity for cartilage tissue engineering. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2017 , 105, 1863-1873	3.5	14
190	Multiscale Strain as a Predictor of Impact-Induced Fissuring in Articular Cartilage. <i>Journal of Biomechanical Engineering</i> , 2017 , 139,	2.1	10
189	Mechanical properties and structure-function relationships of human chondrocyte-seeded cartilage constructs after in vitro culture. <i>Journal of Orthopaedic Research</i> , 2017 , 35, 2298-2306	3.8	12
188	Cyclic Mechanical Loading Enhances Transport of Antibodies Into Articular Cartilage. <i>Journal of Biomechanical Engineering</i> , 2017 , 139,	2.1	20
187	Customized biomaterials to augment chondrocyte gene therapy. <i>Acta Biomaterialia</i> , 2017 , 53, 260-267	10.8	8
186	Tunable Lubricin-mimetics for Boundary Lubrication of Cartilage. <i>Biotribology</i> , 2017 , 9, 18-23	2.3	16
185	Hypoxic Expansion of Human Mesenchymal Stem Cells Enhances Three-Dimensional Maturation of Tissue-Engineered Intervertebral Discs. <i>Tissue Engineering - Part A</i> , 2017 , 23, 293-300	3.9	16

184	Matrix stiffening promotes a tumor vasculature phenotype. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 492-497	11.5	197
183	Sub-critical impact inhibits the lubricating mechanisms of articular cartilage. <i>Journal of Biomechanics</i> , 2017 , 53, 64-70	2.9	17
182	Fiber development and matrix production in tissue-engineered menisci using bovine mesenchymal stem cells and fibrochondrocytes. <i>Connective Tissue Research</i> , 2017 , 58, 329-341	3.3	22
181	In vitro culture increases mechanical stability of human tissue engineered cartilage constructs by prevention of microscale scaffold buckling. <i>Journal of Biomechanics</i> , 2017 , 64, 77-84	2.9	9
180	Next Generation Tissue Engineering of Orthopedic Soft Tissue-to-Bone Interfaces. <i>MRS Communications</i> , 2017 , 7, 289-308	2.7	31
179	Total disc replacement using tissue-engineered intervertebral discs in the canine cervical spine. <i>PLoS ONE</i> , 2017 , 12, e0185716	3.7	35
178	The Effect of Antibody Size and Mechanical Loading on Solute Diffusion Through the Articular Surface of Cartilage. <i>Journal of Biomechanical Engineering</i> , 2017 , 139,	2.1	12
177	Correlating rheological properties and printability of collagen bioinks: the effects of riboflavin photocrosslinking and pH. <i>Biofabrication</i> , 2017 , 9, 034102	10.5	121
176	Degenerative changes of the canine cervical spine after discectomy procedures, an in vivo study. <i>BMC Veterinary Research</i> , 2017 , 13, 193	2.7	11
175	Initial investigation of individual and combined annulus fibrosus and nucleus pulposus repair ex vivo. <i>Acta Biomaterialia</i> , 2017 , 59, 192-199	10.8	23
174	Post-traumatic osteoarthritis of the ankle: A distinct clinical entity requiring new research approaches. <i>Journal of Orthopaedic Research</i> , 2017 , 35, 440-453	3.8	53
173	A model system for developing a tissue engineered meniscal enthesis. <i>Acta Biomaterialia</i> , 2017 , 56, 110-117	10.3	14
172	Three-Dimensional Bioprinting and Its Potential in the Field of Articular Cartilage Regeneration. <i>Cartilage</i> , 2017 , 8, 327-340	3	64
171	Binding and lubrication of biomimetic boundary lubricants on articular cartilage. <i>Journal of Orthopaedic Research</i> , 2017 , 35, 548-557	3.8	32
170	Synergistic Interactions of a Synthetic Lubricin-Mimetic with Fibronectin for Enhanced Wear Protection. <i>Frontiers in Bioengineering and Biotechnology</i> , 2017 , 5, 36	5.8	12
169	Optimizing cell sourcing for clinical translation of tissue engineered ears. <i>Biofabrication</i> , 2016 , 9, 015004	10.5	11
168	Human talar and femoral cartilage have distinct mechanical properties near the articular surface. <i>Journal of Biomechanics</i> , 2016 , 49, 3320-3327	2.9	23
167	Mesenchymal Stem Cells Enhance Lubrication of Engineered Meniscus Through Lubricin Localization in Collagen Gels. <i>Biotribology</i> , 2016 , 8, 26-32	2.3	4

166	3D Bioprinting of Spatially Heterogeneous Collagen Constructs for Cartilage Tissue Engineering. <i>ACS Biomaterials Science and Engineering</i> , 2016 , 2, 1800-1805	5.5	216
165	Biomechanical and biochemical characterization of porcine tracheal cartilage. <i>Laryngoscope</i> , 2016 , 126, E325-31	3.6	13
164	Hyaline Articular Matrix Formed by Dynamic Self-Regenerating Cartilage and Hydrogels. <i>Tissue Engineering - Part A</i> , 2016 , 22, 962-70	3.9	5
163	Characterization of mesenchymal stem cells and fibrochondrocytes in three-dimensional co-culture: analysis of cell shape, matrix production, and mechanical performance. <i>Stem Cell Research and Therapy</i> , 2016 , 7, 39	8.3	44
162	Galectin-3 Binds to Lubricin and Reinforces the Lubricating Boundary Layer of Articular Cartilage. <i>Scientific Reports</i> , 2016 , 6, 25463	4.9	21
161	Long-Term Morphological and Microarchitectural Stability of Tissue-Engineered, Patient-Specific Auricles In Vivo. <i>Tissue Engineering - Part A</i> , 2016 , 22, 461-8	3.9	20
160	Biological Treatment Approaches for Degenerative Disk Disease: A Literature Review of In Vivo Animal and Clinical Data. <i>Global Spine Journal</i> , 2016 , 6, 497-518	2.7	50
159	Physiologically Distributed Loading Patterns Drive the Formation of Zonally Organized Collagen Structures in Tissue-Engineered Meniscus. <i>Tissue Engineering - Part A</i> , 2016 , 22, 907-16	3.9	38
158	Mechanical properties and structure-function relationships in articular cartilage repaired using IGF-I gene-enhanced chondrocytes. <i>Journal of Orthopaedic Research</i> , 2016 , 34, 149-53	3.8	27
157	Joint-dependent response to impact and implications for post-traumatic osteoarthritis. <i>Osteoarthritis and Cartilage</i> , 2015 , 23, 1130-7	6.2	20
156	Comparison of Efficacy of Endogenous and Exogenous IGF-I in Stimulating Matrix Production in Neonatal and Mature Chondrocytes. <i>Cartilage</i> , 2015 , 6, 264-72	3	3
155	Fibronectin mediates enhanced wear protection of lubricin during shear. <i>Biomacromolecules</i> , 2015 , 16, 2884-94	6.9	24
154	Measuring microscale strain fields in articular cartilage during rapid impact reveals thresholds for chondrocyte death and a protective role for the superficial layer. <i>Journal of Biomechanics</i> , 2015 , 48, 3440-8	2.9	49
153	Riboflavin crosslinked high-density collagen gel for the repair of annular defects in intervertebral discs: An in vivo study. <i>Acta Biomaterialia</i> , 2015 , 26, 215-24	10.8	38
152	Characterization of Tissue Response to Impact Loads Delivered Using a Hand-Held Instrument for Studying Articular Cartilage Injury. <i>Cartilage</i> , 2015 , 6, 226-32	3	22
151	Induction of fiber alignment and mechanical anisotropy in tissue engineered menisci with mechanical anchoring. <i>Journal of Biomechanics</i> , 2015 , 48, 1436-43	2.9	41
150	Mechanical characterization of matrix-induced autologous chondrocyte implantation (MACI) grafts in an equine model at 53 weeks. <i>Journal of Biomechanics</i> , 2015 , 48, 1944-9	2.9	40
149	Dose-dependent response of tissue-engineered intervertebral discs to dynamic unconfined compressive loading. <i>Tissue Engineering - Part A</i> , 2015 , 21, 564-72	3.9	13

148	Adhesion and integration of tissue engineered cartilage to porous polyethylene for composite ear reconstruction. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2015 , 103, 983-91	3.5	12
147	Elastoviscous Transitions of Articular Cartilage Reveal a Mechanism of Synergy between Lubricin and Hyaluronic Acid. <i>PLoS ONE</i> , 2015 , 10, e0143415	3.7	85
146	Injectable, high-density collagen gels for annulus fibrosus repair: An in vitro rat tail model. <i>Journal of Biomedical Materials Research - Part A</i> , 2015 , 103, 2571-81	5.4	43
145	Identification of cartilage injury using quantitative multiphoton microscopy. <i>Osteoarthritis and Cartilage</i> , 2014 , 22, 355-62	6.2	15
144	Tissue-engineered intervertebral discs: MRI results and histology in the rodent spine. <i>Journal of Neurosurgery: Spine</i> , 2014 , 20, 443-51	2.8	21
143	Structure-function relations and rigidity percolation in the shear properties of articular cartilage. <i>Biophysical Journal</i> , 2014 , 107, 1721-30	2.9	59
142	Enhanced boundary lubrication properties of engineered menisci by lubricin localization with insulin-like growth factor I treatment. <i>Journal of Biomechanics</i> , 2014 , 47, 2183-8	2.9	21
141	Assessment of intervertebral disc degeneration based on quantitative magnetic resonance imaging analysis: an in vivo study. <i>Spine</i> , 2014 , 39, E369-78	3.3	22
140	Annular repair using high-density collagen gel: a rat-tail in vivo model. <i>Spine</i> , 2014 , 39, 198-206	3.3	45
139	Effects of enzymatic treatments on the depth-dependent viscoelastic shear properties of articular cartilage. <i>Journal of Orthopaedic Research</i> , 2014 , 32, 1652-7	3.8	45
138	Computed tomography-guided tissue engineering of upper airway cartilage. <i>Tissue Engineering - Part C: Methods</i> , 2014 , 20, 506-13	2.9	9
137	Quantitative characterization of mesenchymal stem cell adhesion to the articular cartilage surface. <i>Journal of Biomedical Materials Research - Part A</i> , 2013 , 101, 3592-8	5.4	13
136	Recent advances in biological therapies for disc degeneration: tissue engineering of the annulus fibrosus, nucleus pulposus and whole intervertebral discs. <i>Current Opinion in Biotechnology</i> , 2013 , 24, 872-9	11.4	67
135	Anatomic variation of depth-dependent mechanical properties in neonatal bovine articular cartilage. <i>Journal of Orthopaedic Research</i> , 2013 , 31, 686-91	3.8	29
134	Effects of chitosan coatings on polypropylene mesh for implantation in a rat abdominal wall model. <i>Tissue Engineering - Part A</i> , 2013 , 19, 2713-23	3.9	28
133	The effect of IGF-I on anatomically shaped tissue-engineered menisci. <i>Tissue Engineering - Part A</i> , 2013 , 19, 1443-50	3.9	24
132	Cell(MC3T3-E1)-printed poly(?-caprolactone)/alginate hybrid scaffolds for tissue regeneration. <i>Macromolecular Rapid Communications</i> , 2013 , 34, 142-9	4.8	72
131	High density type I collagen gels for tissue engineering of whole menisci. <i>Acta Biomaterialia</i> , 2013 , 9, 7787-95	10.8	52

130	Tuning three-dimensional collagen matrix stiffness independently of collagen concentration modulates endothelial cell behavior. <i>Acta Biomaterialia</i> , 2013 , 9, 4635-44	10.8	246
129	Spatial periodicity in growth plate shear mechanical properties is disrupted by vitamin D deficiency. <i>Journal of Biomechanics</i> , 2013 , 46, 1597-603	2.9	7
128	Cell-laden poly(e-caprolactone)/alginate hybrid scaffolds fabricated by an aerosol cross-linking process for obtaining homogeneous cell distribution: fabrication, seeding efficiency, and cell proliferation and distribution. <i>Tissue Engineering - Part C: Methods</i> , 2013 , 19, 784-93	2.9	36
127	Localization of viscous behavior and shear energy dissipation in articular cartilage under dynamic shear loading. <i>Journal of Biomechanical Engineering</i> , 2013 , 135, 31002	2.1	41
126	In vivo tibial compression decreases osteolysis and tumor formation in a human metastatic breast cancer model. <i>Journal of Bone and Mineral Research</i> , 2013 , 28, 2357-67	6.3	64
125	3D Cell and Scaffold Patterning Strategies in Tissue Engineering. <i>Recent Patents on Biomedical Engineering</i> , 2013 , 6, 3-21		15
124	High-fidelity tissue engineering of patient-specific auricles for reconstruction of pediatric microtia and other auricular deformities. <i>PLoS ONE</i> , 2013 , 8, e56506	3.7	135
123	Image-based tissue engineering of a total intervertebral disc implant for restoration of function to the rat lumbar spine. <i>NMR in Biomedicine</i> , 2012 , 25, 443-51	4.4	34
122	Properties of cartilage engineered from elderly human chondrocytes for articular surface repair. <i>Tissue Engineering - Part A</i> , 2012 , 18, 1490-9	3.9	3
121	Fabrication of cell-laden three-dimensional alginate-scaffolds with an aerosol cross-linking process. <i>Journal of Materials Chemistry</i> , 2012 , 22, 18735		47
120	Cells (MC3T3-E1)-laden alginate scaffolds fabricated by a modified solid-freeform fabrication process supplemented with an aerosol spraying. <i>Biomacromolecules</i> , 2012 , 13, 2997-3003	6.9	90
119	Novel Model-Based Inquiry of Ionic Bonding in Alginate Hydrogels Used in Tissue Engineering for High School Students. <i>Journal of Chemical Education</i> , 2012 , 89, 1308-1311	2.4	6
118	Calcium signaling in response to fluid flow by chondrocytes in 3D alginate culture. <i>Journal of Orthopaedic Research</i> , 2012 , 30, 793-9	3.8	16
117	Insights into interstitial flow, shear stress, and mass transport effects on ECM heterogeneity in bioreactor-cultivated engineered cartilage hydrogels. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012 , 11, 689-702	3.8	33
116	The effect of the duration of mechanical stimulation and post-stimulation culture on the structure and properties of dynamically compressed tissue-engineered menisci. <i>Tissue Engineering - Part A</i> , 2012 , 18, 1365-75	3.9	34
115	Mathematical modeling and frequency gradient analysis of cellular and vascular invasion into integra and strattice: toward optimal design of tissue regeneration scaffolds. <i>Plastic and Reconstructive Surgery</i> , 2012 , 129, 89-99	2.7	18
114	Increased mixing improves hydrogel homogeneity and quality of three-dimensional printed constructs. <i>Tissue Engineering - Part C: Methods</i> , 2011 , 17, 239-48	2.9	68
113	Methods for photocrosslinking alginate hydrogel scaffolds with high cell viability. <i>Tissue Engineering - Part C: Methods</i> , 2011 , 17, 173-9	2.9	133

112	Chondrocyte calcium signaling in response to fluid flow is regulated by matrix adhesion in 3-D alginate scaffolds. <i>Archives of Biochemistry and Biophysics</i> , 2011 , 505, 112-7	4.1	33
111	Biomechanical characterisation of equine laryngeal cartilage. <i>Equine Veterinary Journal</i> , 2011 , 43, 592-8	2.4	6
110	Frictional properties of the meniscus improve after scaffold-augmented repair of partial meniscectomy: a pilot study. <i>Clinical Orthopaedics and Related Research</i> , 2011 , 469, 2817-23	2.2	33
109	A pre-clinical test platform for the functional evaluation of scaffolds for musculoskeletal defects: the meniscus. <i>HSS Journal</i> , 2011 , 7, 157-63	2	20
108	Porous poly(vinyl alcohol)-hydrogel matrix-engineered biosynthetic cartilage. <i>Tissue Engineering - Part A</i> , 2011 , 17, 301-9	3.9	35
107	Microstructured templates for directed growth and vascularization of soft tissue in vivo. <i>Biomaterials</i> , 2011 , 32, 5391-401	15.6	46
106	Dynamic compressive loading of image-guided tissue engineered meniscal constructs. <i>Journal of Biomechanics</i> , 2011 , 44, 509-16	2.9	52
105	Biological intervertebral disc replacement: an in vivo model and comparison of two surgical techniques to approach the rat caudal disc. <i>Evidence-based Spine-care Journal</i> , 2011 , 2, 29-35		7
104	Tissue-engineered total disc replacement: final outcomes of a murine caudal disc in vivo study. <i>Evidence-based Spine-care Journal</i> , 2011 , 2, 55-6		10
103	Tissue-engineered intervertebral discs produce new matrix, maintain disc height, and restore biomechanical function to the rodent spine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 13106-11	11.5	136
102	An optical method for evaluation of geometric fidelity for anatomically shaped tissue-engineered constructs. <i>Tissue Engineering - Part C: Methods</i> , 2010 , 16, 693-703	2.9	38
101	Total disc replacement using a tissue-engineered intervertebral disc in vivo: new animal model and initial results. <i>Evidence-based Spine-care Journal</i> , 2010 , 1, 62-6		18
100	Self-assembly of aligned tissue-engineered annulus fibrosus and intervertebral disc composite via collagen gel contraction. <i>Tissue Engineering - Part A</i> , 2010 , 16, 1339-48	3.9	126
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