James C Iatridis

List of Publications by Year
in descending order

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163 papers	10,170 citations	25034 57 h-index	40979 93 g-index
167 all docs	167 docs citations	167 times ranked	5673 citing authors

#	Article	IF	Citations
1	Extracellular Vesicles as an Emerging Treatment Option for Intervertebral Disc Degeneration: Therapeutic Potential, Translational Pathways, and Regulatory Considerations. Advanced Healthcare Materials, 2022, 11, e2100596.	7.6	47
2	High fat diet causes inferior vertebral structure and function without disc degeneration in RAGEâ€KO mice. Journal of Orthopaedic Research, 2022, 40, 1672-1686.	2.3	6
3	Accelerometry Data Delineate Phases of Recovery and Supplement Patient-Reported Outcome Measures Following Lumbar Laminectomy. World Neurosurgery, 2022, 160, e608-e615.	1.3	5
4	Ex vivo biomechanical evaluation of Acute lumbar endplate injury and comparison to annulus fibrosus injury in a rat model. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 131, 105234.	3.1	7
5	Comparison and optimization of sheep in vivo intervertebral disc injury model. JOR Spine, 2022, 5, .	3.2	7
6	Mechanisms and clinical implications of intervertebral disc calcification. Nature Reviews Rheumatology, 2022, 18, 352-362.	8.0	33
7	Genipin-crosslinked fibrin seeded with oxidized alginate microbeads as a novel composite biomaterial strategy for intervertebral disc cell therapy. Biomaterials, 2022, 287, 121641.	11.4	26
8	Bone matrix quality in a developing high-fat diet mouse model is altered by RAGE deletion. Bone, 2022, 162, 116470.	2.9	1
9	Biomechanical models to study spinal phenotypes. , 2022, , 47-66.		0
10	Painful intervertebral disc degeneration and inflammation: from laboratory evidence to clinical interventions. Bone Research, 2021, 9, 7.	11.4	184
11	Development of a standardized histopathology scoring system for intervertebral disc degeneration in rat models: An initiative of the <scp>ORS</scp> spine section. JOR Spine, 2021, 4, e1150.	3.2	49
12	A perspective on the <scp>ORS Spine Section</scp> initiative to develop a multiâ€species <scp>JOR Spine</scp> histopathology series. JOR Spine, 2021, 4, e1165.	3.2	2
13	Development of a standardized histopathology scoring system for intervertebral disc degeneration and regeneration in rabbit modelsâ€An initiative of the <scp>ORS</scp>spine section. JOR Spine, 2021, 4, e1147.	3.2	11
14	Tenomodulin and Chondromodulin-1 Are Both Required to Maintain Biomechanical Function and Prevent Intervertebral Disc Degeneration. Cartilage, 2021, 13, 604S-614S.	2.7	3
15	Singleâ€cell RNAâ€sequencing atlas of bovine caudal intervertebral discs: Discovery of heterogeneous cell populations with distinct roles in homeostasis. FASEB Journal, 2021, 35, e21919.	0.5	28
16	Teaching Principles of Biomaterials to Undergraduate Students During the COVID-19 Pandemic with At-Home Laboratory Experiments. Chemical Engineering Education, 2021, 56, 22-35.	0.2	4
17	Ingenuity during the COVID-19 pandemic: a controlled experiment for respirator mask efficacy testing. BMJ Innovations, 2021, 7, 288-291.	1.7	0
18	Notochordal Cell-Based Treatment Strategies and Their Potential in Intervertebral Disc Regeneration. Frontiers in Cell and Developmental Biology, 2021, 9, 780749.	3.7	21

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19	Development of an At-home Metal Corrosion Laboratory Experiment for STEM Outreach in Biomaterials During the Covid-19 Pandemic. , 2021, 2021, .		1
20	Effect of the CCL5-Releasing Fibrin Gel for Intervertebral Disc Regeneration. Cartilage, 2020, 11, 169-180.	2.7	22
21	Males and females exhibit distinct relationships between intervertebral disc degeneration and pain in a rat model. Scientific Reports, 2020, 10, 15120.	3.3	29
22	Letter to the Editor: Individual Patient-reported Activity Levels Before and After Joint Arthroplasty Are Neither Accurate nor Reproducible. Clinical Orthopaedics and Related Research, 2020, 478, 2408-2409.	1.5	1
23	Measuring the neutral zone of spinal motion segments: Comparison of multiple analysis methods to quantify spinal instability. JOR Spine, 2020, 3, e1088.	3.2	9
24	The Functional Role of Interface Tissue Engineering in Annulus Fibrosus Repair: Bridging Mechanisms of Hydrogel Integration with Regenerative Outcomes. ACS Biomaterials Science and Engineering, 2020, 6, 6556-6586.	5.2	19
25	Development of a two-part biomaterial adhesive strategy for annulus fibrosus repair and ex vivo evaluation of implant herniation risk. Biomaterials, 2020, 258, 120309.	11.4	38
26	Ex-vivo biomechanics of repaired rat intervertebral discs using genipin crosslinked fibrin adhesive hydrogel. Journal of Biomechanics, 2020, 113, 110100.	2.1	20
27	Physician Decision-making in Return to Play After Cervical Spine Injury. Clinical Spine Surgery, 2020, 33, E330-E336.	1.3	6
28	Advanced glycation end products cause <scp>RAGE</scp>â€dependent annulus fibrosus collagen disruption and loss identified using in situ second harmonic generation imaging in mice intervertebral disk in vivo and in organ culture models. JOR Spine, 2020, 3, e1126.	3.2	21
29	Advancing basic and preclinical spine research: Highlights from the <scp>ORS PSRS</scp> 5th International Spine Research Symposium. JOR Spine, 2020, 3, e1134.	3.2	0
30	Spatial mapping of collagen content and structure in human intervertebral disk degeneration. JOR Spine, 2020, 3, e1129.	3.2	15
31	Leptin signaling and the intervertebral disc: Sex dependent effects of leptin receptor deficiency and Western diet on the spine in a type 2 diabetes mouse model. PLoS ONE, 2020, 15, e0227527.	2.5	15
32	Morphological and biomechanical effects of annulus fibrosus injury and repair in an ovine cervical model. JOR Spine, 2020, 3, e1074.	3.2	22
33	Loss of tenomodulin expression is a risk factor for ageâ€related intervertebral disc degeneration. Aging Cell, 2020, 19, e13091.	6.7	36
34	The importance of diversity, equity, and inclusion in orthopedic research. Journal of Orthopaedic Research, 2020, 38, 1661-1665.	2.3	10
35	Elevated glycohemoglobin HbA1c is associated with low back pain in nonoverweight diabetics. Spine Journal, 2019, 19, 225-231.	1.3	7
36	Dietary polyphenols as a safe and novel intervention for modulating pain associated with intervertebral disc degeneration in an in-vivo rat model. PLoS ONE, 2019, 14, e0223435.	2.5	13

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37	Phlpp1 is associated with human intervertebral disc degeneration and its deficiency promotes healing after needle puncture injury in mice. Cell Death and Disease, 2019, 10, 754.	6.3	22
38	Composite biomaterial repair strategy to restore biomechanical function and reduce herniation risk in an ex vivo large animal model of intervertebral disc herniation with varying injury severity. PLoS ONE, 2019, 14, e0217357.	2.5	22
39	Injectable cellulose-based hydrogels as nucleus pulposus replacements: Assessment of in vitro structural stability, ex vivo herniation risk, and in vivo biocompatibility. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 96, 204-213.	3.1	32
40	Fibrin-Genipin Hydrogel for Cartilage Tissue Engineering in Nasal Reconstruction. Annals of Otology, Rhinology and Laryngology, 2019, 128, 640-646.	1.1	22
41	Biomechanical test protocols to detect minor injury effects in intervertebral discs. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 95, 13-20.	3.1	13
42	Discogenic Back Pain: Literature Review of Definition, Diagnosis, and Treatment. JBMR Plus, 2019, 3, e10180.	2.7	114
43	Homeostasis disrupted by strain mechanosensing. Nature Biomedical Engineering, 2019, 3, 951-952.	22.5	2
44	Neonatal annulus fibrosus regeneration occurs via recruitment and proliferation of Scleraxis-lineage cells. Npj Regenerative Medicine, 2019, 4, 23.	5.2	15
45	Sex Differences in Rat Intervertebral Disc Structure and Function Following Annular Puncture Injury. Spine, 2019, 44, 1257-1269.	2.0	32
46	Annulus fibrosus cell phenotypes in homeostasis and injury: implications for regenerative strategies. Annals of the New York Academy of Sciences, 2019, 1442, 61-78.	3.8	66
47	Hyperosmolarity induces notochordal cell differentiation with aquaporin3 upregulation and reduced Nâ€cadherin expression. Journal of Orthopaedic Research, 2018, 36, 788-798.	2.3	28
48	Publication trends in spine research from 2007 to 2016: Comparison of the Orthopaedic Research Society Spine Section and the International Society for the Study of the Lumbar Spine. JOR Spine, 2018, 1, e1006.	3.2	10
49	Cell-Seeded Adhesive Biomaterial for Repair of Annulus Fibrosus Defects in Intervertebral Discs. Tissue Engineering - Part A, 2018, 24, 187-198.	3.1	45
50	In vitro and biomechanical screening of polyethylene glycol and poly(trimethylene carbonate) block copolymers for annulus fibrosus repair. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e727-e736.	2.7	28
51	Accumulation and localization of macrophage phenotypes with human intervertebral disc degeneration. Spine Journal, 2018, 18, 343-356.	1.3	116
52	Animal models for studying the etiology and treatment of low back pain. Journal of Orthopaedic Research, 2018, 36, 1305-1312.	2.3	41
53	Dietary Advanced Glycation End Products Have Sex- and Age-Dependent Effects on Vertebral Bone Microstructure and Mechanical Function in Mice. Journal of Bone and Mineral Research, 2018, 33, 437-448.	2.8	25
54	Dietary advanced glycation end-product consumption leads to mechanical stiffening of murine intervertebral discs. DMM Disease Models and Mechanisms, 2018, 11, .	2.4	27

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55	New horizons in spine research: Disc biology, tissue engineering, biomechanics, translational, and clinical research. JOR Spine, 2018, 1, e1032.	3.2	8
56	Neonatal mouse intervertebral discs heal with restored function following herniation injury. FASEB Journal, 2018, 32, 4753-4762.	0.5	30
57	Effects of Level, Loading Rate, Injury and Repair on Biomechanical Response of Ovine Cervical Intervertebral Discs. Annals of Biomedical Engineering, 2018, 46, 1911-1920.	2.5	13
58	Critical aspects and challenges for intervertebral disc repair and regenerationâ€"Harnessing advances in tissue engineering. JOR Spine, 2018, 1, e1029.	3.2	79
59	3D printing a mechanically-tunable acrylate resin on a commercial DLP-SLA printer. Additive Manufacturing, 2018, 23, 374-380.	3.0	84
60	Inhibiting tumor necrosis factorâ€alpha at time of induced intervertebral disc injury limits longâ€term pain and degeneration in a rat model. JOR Spine, 2018, 1, e1014.	3.2	50
61	New horizons in spine research: Intervertebral disc repair and regeneration. Journal of Orthopaedic Research, 2017, 35, 5-7.	2.3	8
62	Abnormal fetal muscle forces result in defects in spinal curvature and alterations in vertebral segmentation and shape. Journal of Orthopaedic Research, 2017, 35, 2135-2144.	2.3	27
63	Structural and Chemical Modification to Improve Adhesive and Material Properties of Fibrin-Genipin for Repair of Annulus Fibrosus Defects in Intervertebral Disks. Journal of Biomechanical Engineering, 2017, 139, .	1.3	29
64	Looking beyond the intervertebral disc: the need for behavioral assays in models of discogenic pain. Annals of the New York Academy of Sciences, 2017, 1409, 51-66.	3.8	41
65	Development of a bovine decellularized extracellular matrix-biomaterial for nucleus pulposus regeneration. Journal of Orthopaedic Research, 2016, 34, 876-888.	2.3	43
66	Molecular mechanisms of biological aging in intervertebral discs. Journal of Orthopaedic Research, 2016, 34, 1289-1306.	2.3	270
67	New Horizons in Spine Research: Disc biology, spine biomechanics and pathomechanisms of back pain. Journal of Orthopaedic Research, 2016, 34, 1287-1288.	2.3	3
68	Do mechanical strain and TNF-Î± interact to amplify pro-inflammatory cytokine production in human annulus fibrosus cells?. Journal of Biomechanics, 2016, 49, 1214-1220.	2.1	29
69	Does type 2 diabetes mellitus promote intervertebral disc degeneration?. European Spine Journal, 2016, 25, 2716-2720.	2.2	32
70	Annular puncture with tumor necrosis factor-alpha injection enhances painful behavior with disc degeneration in vivo. Spine Journal, 2016, 16, 420-431.	1.3	64
71	Design Requirements for Annulus Fibrosus Repair: Review of Forces, Displacements, and Material Properties of the Intervertebral Disk and a Summary of Candidate Hydrogels for Repair. Journal of Biomechanical Engineering, 2016, 138, 021007.	1.3	76
72	Mechanical restoration and failure analyses of a hydrogel and scaffold composite strategy for annulus fibrosus repair. Acta Biomaterialia, 2016, 30, 116-125.	8.3	55

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73	Inflammatory Kinetics and Efficacy of Anti-inflammatory Treatments on Human Nucleus Pulposus Cells. Spine, 2015, 40, 955-963.	2.0	40
74	Association Between BMP-2 and Carcinogenicity. Spine, 2015, 40, 1862-1871.	2.0	59
75	Chronic Ingestion of Advanced Glycation End Products Induces Degenerative Spinal Changes and Hypertrophy in Aging Pre-Diabetic Mice. PLoS ONE, 2015, 10, e0116625.	2.5	64
76	TNFÎ± Transport Induced by Dynamic Loading Alters Biomechanics of Intact Intervertebral Discs. PLoS ONE, 2015, 10, e0118358.	2.5	41
77	Intact glycosaminoglycans from intervertebral disc-derived notochordal cell-conditioned media inhibit neurite growth while maintaining neuronal cell viability. Spine Journal, 2015, 15, 1060-1069.	1.3	39
78	Defining the phenotype of young healthy nucleus pulposus cells: Recommendations of the Spine Research Interest Group at the 2014 annual ORS meeting. Journal of Orthopaedic Research, 2015, 33, 283-293.	2.3	226
79	Assessment of functional and behavioral changes sensitive to painful disc degeneration. Journal of Orthopaedic Research, 2015, 33, 755-764.	2.3	56
80	Fibrin-genipin annulus fibrosus sealant as a delivery system for anti-TNFÎ± drug. Spine Journal, 2015, 15, 2045-2054.	1.3	45
81	Organ Culture Bioreactors â€“ Platforms to Study Human Intervertebral Disc Degeneration and Regenerative Therapy. Current Stem Cell Research and Therapy, 2015, 10, 339-352.	1.3	78
82	Characterization of Mechanics and Cytocompatibility of Fibrin-Genipin Annulus Fibrosus Sealant with the Addition of Cell Adhesion Molecules. Tissue Engineering - Part A, 2014, 20, 2536-2545.	3.1	52
83	The Impact of Diabetes Mellitus on Patients Undergoing Degenerative Cervical Spine Surgery. Spine, 2014, 39, 1656-1665.	2.0	64
84	Nonoperative Management of Discogenic Back Pain. Spine, 2014, 39, 1314-1324.	2.0	42
85	Outcomes and Complications of Diabetes Mellitus on Patients Undergoing Degenerative Lumbar Spine Surgery. Spine, 2014, 39, 1596-1604.	2.0	103
86	Detrimental effects of discectomy on intervertebral disc biology can be decelerated by growth factor treatment during surgery: a large animal organ culture model. Spine Journal, 2014, 14, 2724-2732.	1.3	21
87	Cellular bone matrices: viable stem cell-containing bone graft substitutes. Spine Journal, 2014, 14, 2763-2772.	1.3	61
88	Intervertebral Disc Culture Models and Their Applications to Study Pathogenesis and Repair. , 2014, , 353-371.		4
89	Genetic polymorphisms associated with intervertebral disc degeneration. Spine Journal, 2013, 13, 299-317.	1.3	158
90	Analysis of quantitative magnetic resonance imaging and biomechanical parameters on human discs with different grades of degeneration. Journal of Magnetic Resonance Imaging, 2013, 38, 1402-1414.	3.4	52

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91	Role of biomechanics in intervertebral disc degeneration and regenerative therapies: what needs repairing in the disc and what are promising biomaterials for its repair?. Spine Journal, 2013, 13, 243-262.	1.3	252
92	Structural, compositional, and biomechanical alterations of the lumbar spine in rats with mucopolysaccharidosis type VI (Maroteauxâ€“Lamy syndrome). Journal of Orthopaedic Research, 2013, 31, 621-631.	2.3	9
93	Stress and matrixâ€responsive cytoskeletal remodeling in fibroblasts. Journal of Cellular Physiology, 2013, 228, 50-57.	4.1	26
94	Degenerative Grade Affects the Responses of Human Nucleus Pulposus Cells to Link-N, CTGF, and TGFÎ²3. Journal of Spinal Disorders and Techniques, 2013, 26, E86-E94.	1.9	26
95	Dynamic pressurization induces transition of notochordal cells to a mature phenotype while retaining production of important patterning ligands from development. Arthritis Research and Therapy, 2013, 15, R122.	3.5	43
96	Combined Anti-Inflammatory and Anti-AGE Drug Treatments Have a Protective Effect on Intervertebral Discs in Mice with Diabetes. PLoS ONE, 2013, 8, e64302.	2.5	96
97	Genipin-Crosslinked Fibrin Hydrogels Modified With Collagen or Fibronectin as an Annulus Fibrosus Sealant. , 2012, , .		0
98	Commentary: Does needle injection cause disc degeneration? News in the continuing debate regarding pathophysiology associated with intradiscal injections. Spine Journal, 2012, 12, 336-338.	1.3	20
99	Height and torsional stiffness are most sensitive to annular injury in large animal intervertebral discs. Spine Journal, 2012, 12, 425-432.	1.3	70
100	Live free or die: Stretch-induced apoptosis occurs when adaptive reorientation of annulus fibrosus cells is restricted. Biochemical and Biophysical Research Communications, 2012, 421, 361-366.	2.1	18
101	Notochordal conditioned media from tissue increases proteoglycan accumulation and promotes a healthy nucleus pulposus phenotype in human mesenchymal stem cells. Arthritis Research and Therapy, 2011, 13, R81.	3.5	101
102	Effects of Torsion on Intervertebral Disc Gene Expression and Biomechanics, Using a Rat Tail Model. Spine, 2011, 36, 607-614.	2.0	48
103	Refinement of Elastic, Poroelastic, and Osmotic Tissue Properties of Intervertebral Disks to Analyze Behavior in Compression. Annals of Biomedical Engineering, 2011, 39, 122-131.	2.5	23
104	Fibroblast cytoskeletal remodeling contributes to connective tissue tension. Journal of Cellular Physiology, 2011, 226, 1166-1175.	4.1	74
105	Penetrating Annulus Fibrosus Injuries Affect Dynamic Compressive Behaviors of the Intervertebral Disc Via Altered Fluid Flow: An Analytical Interpretation. Journal of Biomechanical Engineering, 2011, 133, 084502.	1.3	17
106	Limitation of Finite Element Analysis of Poroelastic Behavior of Biological Tissues Undergoing Rapid Loading. Annals of Biomedical Engineering, 2010, 38, 1780-1788.	2.5	23
107	Needle puncture injury of the rat intervertebral disc affects torsional and compressive biomechanics differently. European Spine Journal, 2010, 19, 2110-2116.	2.2	74
108	Effects of enzymatic digestion on compressive properties of rat intervertebral discs. Journal of Biomechanics, 2010, 43, 1067-1073.	2.1	44

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109	The effects of needle puncture injury on microscale shear strain in the intervertebral disc annulus fibrosus. Spine Journal, 2010, 10, 1098-1105.	1.3	78
110	Notochordal cell conditioned medium stimulates mesenchymal stem cell differentiation toward a young nucleus pulposus phenotype. Stem Cell Research and Therapy, 2010, 1, 18.	5.5	116
111	Spatially Resolved Streaming Potentials of Human Intervertebral Disk Motion Segments Under Dynamic Axial Compression. Journal of Biomechanical Engineering, 2009, 131, 031006.	1.3	8
112	Intervertebral disc cell response to dynamic compression is age and frequency dependent. Journal of Orthopaedic Research, 2009, 27, 800-806.	2.3	76
113	In vivo remodeling of intervertebral discs in response to shortâ€•and longâ€term dynamic compression. Journal of Orthopaedic Research, 2009, 27, 1235-1242.	2.3	138
114	Localized Intervertebral Disc Injury Leads to Organ Level Changes in Structure, Cellularity, and Biosynthesis. Cellular and Molecular Bioengineering, 2009, 2, 437-447.	2.1	74
115	Function follows form. Nature Materials, 2009, 8, 923-924.	27.5	27
116	Measurement of local strains in intervertebral disc anulus fibrosus tissue under dynamic shear: Contributions of matrix fiber orientation and elastin content. Journal of Biomechanics, 2009, 42, 2279-2285.	2.1	122
117	MSC response to pH levels found in degenerating intervertebral discs. Biochemical and Biophysical Research Communications, 2009, 379, 824-829.	2.1	98
118	Measurement of Local Strains in Intervertebral Disc Anulus Fibrosus Tissue Under Dynamic Shear: Contributions of Matrix Fiber Orientation and Elastin Content. , 2009, , .		1
119	An Analytical Model Describing Intervertebral Disc Mechanics Following a Needle Puncture Injury. , 2009, , .		0
120	Asymmetric Loading Promotes Early Signs of Intervertebral Disc Degeneration in Large Animal Organ Culture. , 2009, , .		0
121	Quantitative MRI as a diagnostic tool of intervertebral disc matrix composition and integrity. European Spine Journal, 2008, 17, 432-440.	2.2	99
122	Evaluation of quantitative magnetic resonance imaging, biochemical and mechanical properties of trypsinâ€treated intervertebral discs under physiological compression loading. Journal of Magnetic Resonance Imaging, 2008, 27, 563-573.	3.4	43
123	In vivo intervertebral disc remodeling: Kinetics of mRNA expression in response to a single loading event. Journal of Orthopaedic Research, 2008, 26, 579-588.	2.3	25
124	Dynamic Compression Effects on Intervertebral Disc Mechanics and Biology. Spine, 2008, 33, 1403-1409.	2.0	104
125	Behavior of Mesenchymal Stem Cells in the Chemical Microenvironment of the Intervertebral Disc. Spine, 2008, 33, 1843-1849.	2.0	145
126	Needle Puncture Injury Affects Intervertebral Disc Mechanics and Biology in an Organ Culture Model. Spine, 2008, 33, 235-241.	2.0	131

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127	Frequency-Dependent Behavior of the Intervertebral Disc in Response to Each of Six Degree of Freedom Dynamic Loading. Spine, 2008, 33, 1731-1738.	2.0	107
128	A Removable Precision Device for In-Vivo Mechanical Compression of Rat Tail Intervertebral Discs. Journal of Medical Devices, Transactions of the ASME, 2007, 1, 56-61.	0.7	2
129	Different Effects of Static Versus Cyclic Compressive Loading on Rat Intervertebral Disc Height and Water Loss In Vitro. Spine, 2007, 32, 1974-1979.	2.0	45
130	Measurements of Proteoglycan and Water Content Distribution in Human Lumbar Intervertebral Discs. Spine, 2007, 32, 1493-1497.	2.0	141
131	A numerical study to determine pericellular matrix modulus and evaluate its effects on the micromechanical environment of chondrocytes. Journal of Biomechanics, 2007, 40, 1405-1409.	2.1	21
132	Characterization of an in vitro intervertebral disc organ culture system. European Spine Journal, 2007, 16, 1029-1037.	2.2	66
133	Role of endplates in contributing to compression behaviors of motion segments and intervertebral discs. Journal of Biomechanics, 2007, 40, 55-63.	2.1	54
134	In Vitro Organ Culture of the Bovine Intervertebral Disc. Spine, 2006, 31, 515-522.	2.0	98
135	Correlating Material Properties with Tissue Composition in Enzymatically Digested Bovine Annulus Fibrosus and Nucleus Pulposus Tissue. Annals of Biomedical Engineering, 2006, 34, 769-777.	2.5	67
136	Effects of Mechanical Loading on Intervertebral Disc Metabolism In Vivo. Journal of Bone and Joint Surgery - Series A, 2006, 88, 41-46.	3.0	188
137	EFFECTS OF MECHANICAL LOADING ON INTERVERTEBRAL DISC METABOLISM IN VIVO. Journal of Bone and Joint Surgery - Series A, 2006, 88, 41-46.	3.0	9
138	The effects of short-term load duration on anabolic and catabolic gene expression in the rat tail intervertebral disc. Journal of Orthopaedic Research, 2005, 23, 1120-1127.	2.3	129
139	Mechanical damage to the intervertebral disc annulus fibrosus subjected to tensile loading. Journal of Biomechanics, 2005, 38, 557-565.	2.1	89
140	Effect of mechanical loading on mRNA levels of common endogenous controls in articular chondrocytes and intervertebral disk. Analytical Biochemistry, 2005, 341, 372-375.	2.4	48
141	Confined compression experiments on bovine nucleus pulposus and annulus fibrosus: sensitivity of the experiment in the determination of compressive modulus and hydraulic permeability. Journal of Biomechanics, 2005, 38, 2164-2171.	2.1	129
142	Dynamic fibroblast cytoskeletal response to subcutaneous tissue stretch ex vivo and in vivo. American Journal of Physiology - Cell Physiology, 2005, 288, C747-C756.	4.6	156
143	Anabolic and catabolic mRNA levels of the intervertebral disc vary with the magnitude and frequency of in vivo dynamic compression. Journal of Orthopaedic Research, 2004, 22, 1193-1200.	2.3	163
144	Mechanisms for mechanical damage in the intervertebral disc annulus fibrosus. Journal of Biomechanics, 2004, 37, 1165-1175.	2.1	184

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145	Introduction. Spine, 2004, 29, 2677-2678.	2.0	140
146	Mechanical Conditions That Accelerate Intervertebral Disc Degeneration: Overload Versus Immobilization. Spine, 2004, 29, 2724-2732.	2.0	295
147	Subcutaneous Tissue Mechanical Behavior is Linear and Viscoelastic Under Uniaxial Tension. Connective Tissue Research, 2003, 44, 208-217.	2.3	81
148	Influence of Fixed Charge Density Magnitude and Distribution on the Intervertebral Disc: Applications of a Poroelastic and Chemical Electric (PEACE) Model. Journal of Biomechanical Engineering, 2003, 125, 12-24.	1.3	96
149	Effects of Immobilization and Dynamic Compression on Intervertebral Disc Cell Gene Expression In Vivo. Spine, 2003, 28, 973-981.	2.0	135
150	Mechanical Damage to the Intervertebral Disc Annulus Fibrosus Subjected to Cyclic Tensile Loading. , 2003, , 391.		0
151	Subcutaneous Tissue Mechanical Behavior is Linear and Viscoelastic Under Uniaxial Tension. Connective Tissue Research, 2003, 44, 208-217.	2.3	22
152	Subcutaneous tissue mechanical behavior is linear and viscoelastic under uniaxial tension. Connective Tissue Research, 2003, 44, 208-17.	2.3	25
153	ENLARGEMENT OF GROWTH PLATE CHONDROCYTES MODULATED BY SUSTAINED MECHANICAL LOADING. Journal of Bone and Joint Surgery - Series A, 2002, 84, 1842-1848.	3.0	103
154	Mechanical modulation of growth for the correction of vertebral wedge deformities. Journal of Orthopaedic Research, 1999, 17, 518-524.	2.3	91
155	Shear mechanical properties of human lumbar annulus fibrosus. Journal of Orthopaedic Research, 1999, 17, 732-737.	2.3	105
156	Compression-Induced Changes in Intervertebral Disc Properties in a Rat Tail Model. Spine, 1999, 24, 996-1002.	2.0	249
157	Degeneration affects the anisotropic and nonlinear behaviors of human anulus fibrosus in compression. Journal of Biomechanics, 1998, 31, 535-544.	2.1	284
158	Mechanical Modulation of Intervertebral Disc Thickness in Growing Rat Tails. Journal of Spinal Disorders, 1998, 11, 261???265.	1.1	41
159	Alterations in the mechanical behavior of the human lumbar nucleus pulposus with degeneration and aging. Journal of Orthopaedic Research, 1997, 15, 318-322.	2.3	230
160	The viscoelastic behavior of the non-degenerate human lumbar nucleus pulposus in shear. Journal of Biomechanics, 1997, 30, 1005-1013.	2.1	170
161	Tensile Properties of Nondegenerate Human Lumbar Anulus Fibrosus. Spine, 1996, 21, 452-461.	2.0	242
162	Is the Nucleus Pulposus a Solid or a Fluid? Mechanical Behaviors of the Nucleus Pulposus of the Human Intervertebral Disc. Spine, 1996, 21, 1174-1184.	2.0	293

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163	Determination of collagen-proteoglycan interactions in vitro. Journal of Biomechanics, 1996, 29, 773-783.	2.1	55