Keita Ito

List of Publications by Year
in descending order

257	13,192	54	103
papers	citations	h-index	g-index
		30070	30087

268	268	268	10075
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Femoroacetabular impingement and the cam-effect. Journal of Bone and Joint Surgery: British Volume, 2001, 83, 171-176.	3.4	612
2	Are animal models useful for studying human disc disorders/degeneration?. European Spine Journal, 2008, 17, 2-19.	2.2	611
3	Silk fibroin as biomaterial for bone tissue engineering. Acta Biomaterialia, 2016, 31, 1-16.	8.3	608
4	An in vitro investigation of the acetabular labral seal in hip joint mechanics. Journal of Biomechanics, 2003, 36, 171-178.	2.1	585
5	The influence of the acetabular labrum on hip joint cartilage consolidation: a poroelastic finite element model. Journal of Biomechanics, 2000, 33, 953-960.	2.1	421
6	The acetabular labrum seal: a poroelastic finite element model. Clinical Biomechanics, 2000, 15, 463-468.	1.2	374
7	Tissue engineering of functional articular cartilage: the current status. Cell and Tissue Research, 2012, 347, 613-627.	2.9	286
8	Fluid flow and convective transport of solutes within the intervertebral disc. Journal of Biomechanics, 2004, 37, 213-221.	2.1	284
9	Correlation of radiographic and MRI parameters to morphological and biochemical assessment of intervertebral disc degeneration. European Spine Journal, 2005, 14, 27-35.	2.2	264
10	Stresses in the local collagen network of articular cartilage: a poroviscoelastic fibril-reinforced finite element study. Journal of Biomechanics, 2004, 37, 357-366.	2.1	262
11	Femoroacetabular impingement and the cam-effect. Journal of Bone and Joint Surgery: British Volume, 2001, 83-B, 171-176.	3.4	260
12	Evaluation Of The Acetabular Labrum By MR Arthrography. Journal of Bone and Joint Surgery: British Volume, 1997, 79, 230-234.	3.4	257
13	2004 Young Investigator Award Winner: Vertebral Endplate Marrow Contact Channel Occlusions and Intervertebral Disc Degeneration. Spine, 2005, 30, 167-173.	2.0	252
14	Comparison of biophysical stimuli for mechano-regulation of tissue differentiation during fracture healing. Journal of Biomechanics, 2006, 39, 1507-1516.	2.1	247
15	Bone remodelling in humans is load-driven but not lazy. Nature Communications, 2014, 5, 4855.	12.8	212
16	Histopathologic Features of the Acetabular Labrum in Femoroacetabular Impingement. Clinical Orthopaedics and Related Research, 2004, 429, 262-271.	1.5	210
17	Melt Electrospinning Writing of Polyâ€Hydroxymethylglycolideâ€<i>co</i>â€Îµâ€Caprolactoneâ€Based Scaffolds for Cardiac Tissue Engineering. Advanced Healthcare Materials, 2017, 6, 1700311.	7.6	144
18	A mechano-regulatory bone-healing model incorporating cell-phenotype specific activity. Journal of Theoretical Biology, 2008, 252, 230-246.	1.7	142

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19	Effects of Immobilization and Dynamic Compression on Intervertebral Disc Cell Gene Expression In Vivo. Spine, 2003, 28, 973-981.	2.0	135
20	Bone regeneration during distraction osteogenesis: Mechano-regulation by shear strain and fluid velocity. Journal of Biomechanics, 2007, 40, 2002-2011.	2.1	132
21	Corroboration of mechanoregulatory algorithms for tissue differentiation during fracture healing: comparison with in vivo results. Journal of Orthopaedic Research, 2006, 24, 898-907.	2.3	126
22	Melt Electrowriting Allows Tailored Microstructural and Mechanical Design of Scaffolds to Advance Functional Human Myocardial Tissue Formation. Advanced Functional Materials, 2018, 28, 1803151.	14.9	125
23	Mechanical behavior of a soft hydrogel reinforced with three-dimensional printed microfibre scaffolds. Scientific Reports, 2018, 8, 1245.	3.3	116
24	EVALUATION OF THE ACETABULAR LABRUM BY MR ARTHROGRAPHY. Journal of Bone and Joint Surgery: British Volume, 1997, 79-B, 230-234.	3.4	115
25	Hyaluronic acid and chondroitin sulfate (meth)acrylate-based hydrogels for tissue engineering: Synthesis, characteristics and pre-clinical evaluation. Biomaterials, 2021, 268, 120602.	11.4	104
26	Effect of Limited Nutrition on In Situ Intervertebral Disc Cells Under Simulated-Physiological Loading. Spine, 2009, 34, 1264-1271.	2.0	103
27	The Combined Effects of Limited Nutrition and High-Frequency Loading on Intervertebral Discs With Endplates. Spine, 2010, 35, 1744-1752.	2.0	100
28	An In Vitro Organ Culturing System for Intervertebral Disc Explants With Vertebral Endplates. Spine, 2006, 31, 2665-2673.	2.0	97
29	Deformation of articular cartilage collagen structure under static and cyclic loading. Journal of Orthopaedic Research, 1998, 16, 743-751.	2.3	96
30	The material properties of the bovine acetabular labrum. Journal of Orthopaedic Research, 2001, 19, 887-896.	2.3	93
31	Prediction of collagen orientation in articular cartilage by a collagen remodeling algorithm. Osteoarthritis and Cartilage, 2006, 14, 1196-1202.	1.3	93
32	Impact of Culture Medium on Cellular Interactions in in vitro Co-culture Systems. Frontiers in Bioengineering and Biotechnology, 2020, 8, 911.	4.1	91
33	Bi-layered micro-fibre reinforced hydrogels for articular cartilage regeneration. Acta Biomaterialia, 2019, 95, 297-306.	8.3	89
34	Improved Intramedullary Nail Interlocking in Osteoporotic Bone. Journal of Orthopaedic Trauma, 2001, 15, 192-196.	1.4	83
35	Directing bone marrow-derived stromal cell function with mechanics. Journal of Biomechanics, 2010, 43, 807-817.	2.1	83
36	Shear Does Not Necessarily Inhibit Bone Healing. Clinical Orthopaedics and Related Research, 2006, 443, 307-314.	1.5	78

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37	A survey of micro-finite element analysis for clinical assessment of bone strength: The first decade. Journal of Biomechanics, 2015, 48, 832-841.	2.1	77
38	Internal Strains in Healthy and Degenerated Lumbar Intervertebral Discs. Spine, 2005, 30, 2129-2137.	2.0	75
39	Internal Fixation of Supracondylar Femoral Fractures: Comparative Biomechanical Performance of the 95-Degree Blade Plate and Two Retrograde Nails. Journal of Orthopaedic Trauma, 1998, 12, 259-266.	1.4	75
40	Effects of PTH treatment on tibial bone of ovariectomized rats assessed by in vivo micro-CT. Osteoporosis International, 2009, 20, 1823-1835.	3.1	73
41	Bone morphology allows estimation of loading history in a murine model of bone adaptation. Biomechanics and Modeling in Mechanobiology, 2012, 11, 483-492.	2.8	73
42	Mechanisms of Intervertebral Disk Degeneration/Injury and Pain: A Review. Global Spine Journal, 2013, 3, 145-151.	2.3	73
43	Ageing and degenerative changes of the intervertebral disc and their impact on spinal flexibility. European Spine Journal, 2014, 23 Suppl 3, S324-32.	2.2	73
44	A numerical model to study mechanically induced initiation and progression of damage in articular cartilage. Osteoarthritis and Cartilage, 2014, 22, 95-103.	1.3	72
45	Collagen orientation in periosteum and perichondrium is aligned with preferential directions of tissue growth. Journal of Orthopaedic Research, 2008, 26, 1263-1268.	2.3	69
46	Multitechnology Biofabrication: A New Approach for the Manufacturing of Functional Tissue Structures?. Trends in Biotechnology, 2020, 38, 1316-1328.	9.3	68
47	Inhibition of vertebral endplate perfusion results in decreased intervertebral disc intranuclear diffusive transport. Journal of Anatomy, 2007, 211, 769-774.	1.5	66
48	An Organoid for Woven Bone. Advanced Functional Materials, 2021, 31, 2010524.	14.9	65
49	Sensitivity of tissue differentiation and bone healing predictions to tissue properties. Journal of Biomechanics, 2009, 42, 555-564.	2.1	63
50	The role of endplate poromechanical properties on the nutrient availability in the intervertebral disc. Osteoarthritis and Cartilage, 2014, 22, 1053-1060.	1.3	63
51	Flow rates in perfusion bioreactors to maximise mineralisation in bone tissue engineering in vitro. Journal of Biomechanics, 2018, 79, 232-237.	2.1	62
52	Direction-Dependent Constriction Flow in a Poroelastic Solid: The Intervertebral Disc Valve. Journal of Biomechanical Engineering, 2000, 122, 587-593.	1.3	61
53	Cell therapy for intervertebral disc repair: advancing cell therapy from bench to clinics. , 2014, 27s, 5-11.		61
54	Culturing Bovine Nucleus Pulposus Explants by Balancing Medium Osmolarity. Tissue Engineering - Part C: Methods, 2011, 17, 1089-1096.	2.1	60

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55	Remodeling of fracture callus in mice is consistent with mechanical loading and bone remodeling theory. Journal of Orthopaedic Research, 2009, 27, 664-672.	2.3	58
56	Decreased bone tissue mineralization can partly explain subchondral sclerosis observed in osteoarthritis. Bone, 2012, 50, 1152-1161.	2.9	56
57	Direction-dependent resistance to flow in the endplate of the intervertebral disc: an ex vivo study. Journal of Orthopaedic Research, 2001, 19, 1073-1077.	2.3	54
58	Hydrogel-Based Bioinks for Cell Electrowriting of Well-Organized Living Structures with Micrometer-Scale Resolution. Biomacromolecules, 2021, 22, 855-866.	5.4	54
59	Advances in the diagnosis of degenerated lumbar discs and their possible clinical application. European Spine Journal, 2014, 23, 315-323.	2.2	53
60	Assessment of Cell Viability in Three-Dimensional Scaffolds Using Cellular Auto-Fluorescence. Tissue Engineering - Part C: Methods, 2012, 18, 198-204.	2.1	52
61	From bone regeneration to three-dimensional inÂvitro models: tissue engineering of organized bone extracellular matrix. Current Opinion in Biomedical Engineering, 2019, 10, 107-115.	3.4	50
62	Effect of Mechanical Load on Articular Cartilage Collagen Structure: A Scanning Electron-Microscopic Study. Cells Tissues Organs, 2000, 167, 106-120.	2.3	48
63	Relative contribution of articular cartilageâ€™s constitutive components to load support depending on strain rate. Biomechanics and Modeling in Mechanobiology, 2017, 16, 151-158.	2.8	46
64	Determining the most important cellular characteristics for fracture healing using design of experiments methods. Journal of Theoretical Biology, 2008, 255, 26-39.	1.7	45
65	RGD-dependent integrins are mechanotransducers in dynamically compressed tissue-engineered cartilage constructs. Journal of Biomechanics, 2009, 42, 2177-2182.	2.1	45
66	The species-specific regenerative effects of notochordal cell-conditioned medium on chondrocyte-like cells derived from degenerated human intervertebral discs. , 2015, 30, 132-147.		45
67	Potential regenerative treatment strategies for intervertebral disc degeneration in dogs. BMC Veterinary Research, 2014, 10, 3.	1.9	44
68	Localisation of mineralised tissue in a complex spinner flask environment correlates with predicted wall shear stress level localisation. , 2018, 36, 57-68.		44
69	Matrix Vesicles: Role in Bone Mineralization and Potential Use as Therapeutics. Pharmaceuticals, 2021, 14, 289.	3.8	44
70	Accuracy of Three Techniques to Determine Cell Viability in 3D Tissues or Scaffolds. Tissue Engineering - Part C: Methods, 2008, 14, 353-358.	2.1	43
71	Subject-specific bone loading estimation in the human distal radius. Journal of Biomechanics, 2013, 46, 759-766.	2.1	43
72	Fixation compliance in a mouse osteotomy model induces two different processes of bone healing but does not lead to delayed union. Journal of Biomechanics, 2009, 42, 2089-2096.	2.1	42

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73	A biochemical/biophysical 3D FE intervertebral disc model. Biomechanics and Modeling in Mechanobiology, 2010, 9, 641-650.	2.8	42
74	Conditioned Medium Derived from Notochordal Cell-Rich Nucleus Pulposus Tissue Stimulates Matrix Production by Canine Nucleus Pulposus Cells and Bone Marrow-Derived Stromal Cells. Tissue Engineering - Part A, 2015, 21, 1077-1084.	3.1	42
75	Is collagen fiber damage the cause of early softening in articular cartilage?. Osteoarthritis and Cartilage, 2013, 21, 136-143.	1.3	41
76	Influence of defective bone marrow osteogenesis on fracture repair in an experimental model of senile osteoporosis. Journal of Orthopaedic Research, 2010, 28, 798-804.	2.3	40
77	A novel approach to estimate trabecular bone anisotropy using a database approach. Journal of Biomechanics, 2013, 46, 2356-2362.	2.1	40
78	Leaping the hurdles in developing regenerative treatments for the intervertebral disc from preclinical to clinical. JOR Spine, 2018, 1, e1027.	3.2	40
79	Effect of TGF Î²1, BMP-2 and hydraulic pressure on chondrogenic differentiation of bovine bone marrow mesenchymal stromal cells. Biorheology, 2009, 46, 45-55.	0.4	39
80	The role of pressurized fluid in subchondral bone cyst growth. Bone, 2011, 49, 762-768.	2.9	39
81	Effects of vibration treatment on tibial bone of ovariectomized rats analyzed by in vivo microâ€CT. Journal of Orthopaedic Research, 2010, 28, 62-69.	2.3	38
82	Alterations to the subchondral bone architecture during osteoarthritis: bone adaptation vs endochondral bone formation. Osteoarthritis and Cartilage, 2013, 21, 331-338.	1.3	38
83	Infection resistance of unreamed solid, hollow slotted and cannulated intramedullary nails: An in-vivo experimental comparison. Journal of Orthopaedic Research, 2005, 23, 810-815.	2.3	37
84	Cryopreserved intervertebral disc with injected bone marrowâ€"derived stromal cells: a feasibility study using organ culture. Spine Journal, 2010, 10, 486-496.	1.3	37
85	Mode I crack propagation in hydrogels is step wise. Engineering Fracture Mechanics, 2013, 97, 72-79.	4.3	37
86	Increased Osmolarity and Cell Clustering Preserve Canine Notochordal Cell Phenotype in Culture. Tissue Engineering - Part C: Methods, 2014, 20, 652-662.	2.1	37
87	Alkaline Phosphatase Activity of Serum Affects Osteogenic Differentiation Cultures. ACS Omega, 2022, 7, 12724-12733.	3.5	37
88	Comparison of bone loss induced by ovariectomy and neurectomy in rats analyzed by in vivo microâ€CT. Journal of Orthopaedic Research, 2009, 27, 1521-1527.	2.3	36
89	Biologic canine and human intervertebral disc repair by notochordal cell-derived matrix: from bench towards bedside. Oncotarget, 2018, 9, 26507-26526.	1.8	36
90	The acute structural changes of loaded articular cartilage following meniscectomy or ACL-transection. Osteoarthritis and Cartilage, 2000, 8, 464-473.	1.3	35

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91	Flow-perfusion interferes with chondrogenic and hypertrophic matrix production by mesenchymal stem cells. Journal of Biomechanics, 2014, 47, 2122-2129.	2.1	35
92	Characterization of biomaterials intended for use in the nucleus pulposus of degenerated intervertebral discs. Acta Biomaterialia, 2020, 114, 1-15.	8.3	35
93	The importance of superficial collagen fibrils for the function of articular cartilage. Biomechanics and Modeling in Mechanobiology, 2014, 13, 41-51.	2.8	34
94	A multiscale analytical approach for bone remodeling simulations: Linking scales from collagen to trabeculae. Bone, 2014, 64, 303-313.	2.9	33
95	Determination of hip-joint loading patterns of living and extinct mammals using an inverse Wolffâ€™s law approach. Biomechanics and Modeling in Mechanobiology, 2015, 14, 427-432.	2.8	33
96	A multiscale computational fluid dynamics approach to simulate the micro-fluidic environment within a tissue engineering scaffold with highly irregular pore geometry. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1965-1977.	2.8	33
97	Deformation of Chondrocytes in Articular Cartilage under Compressive Load: A Morphological Study. Cells Tissues Organs, 2003, 175, 133-139.	2.3	32
98	A new approach to determine the accuracy of morphologyâ€"elasticity relationships in continuum FE analyses of human proximal femur. Journal of Biomechanics, 2012, 45, 2884-2892.	2.1	32
99	Comparison of patient-specific computational models vs. clinical follow-up, for adjacent segment disc degeneration and bone remodelling after spinal fusion. PLoS ONE, 2018, 13, e0200899.	2.5	32
100	A poroviscoelastic description of fibrin gels. Journal of Biomechanics, 2008, 41, 3265-3269.	2.1	31
101	Mechanical stimulation to stimulate formation of a physiological collagen architecture in tissue-engineered cartilage: a numerical study. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 135-144.	1.6	31
102	Bone structural changes in osteoarthritis as a result of mechanoregulated bone adaptation: a modeling approach. Osteoarthritis and Cartilage, 2011, 19, 676-682.	1.3	31
103	Long-term culture of bovine nucleus pulposus explants in a native environment. Spine Journal, 2013, 13, 454-463.	1.3	31
104	Effect of coculturing canine notochordal, nucleus pulposus and mesenchymal stromal cells for intervertebral disc regeneration. Arthritis Research and Therapy, 2015, 17, 60.	3.5	31
105	Design of next generation total disk replacements. Journal of Biomechanics, 2012, 45, 134-140.	2.1	30
106	A computational spinal motion segment model incorporating a matrix composition-based model of the intervertebral disc. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 54, 194-204.	3.1	30
107	Novel aspects to the structure of rabbit articular cartilage. , 2002, 4, 18-29.		30
108	Validation of a bone loading estimation algorithm for patient-specific bone remodelling simulations. Journal of Biomechanics, 2013, 46, 941-948.	2.1	29

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109	Soluble and pelletable factors in porcine, canine and human notochordal cell-conditioned medium: implications for IVD regeneration. , 2016, 32, 163-180.		29
110	Viscoelastic Chondroitin Sulfate and Hyaluronic Acid Double-Network Hydrogels with Reversible Cross-Links. Biomacromolecules, 2022, 23, 1350-1365.	5.4	29
111	The Effect of Dexamethasone and Triiodothyronine on Terminal Differentiation of Primary Bovine Chondrocytes and Chondrogenically Differentiated Mesenchymal Stem Cells. PLoS ONE, 2013, 8, e72973.	2.5	28
112	Hydroxyapatite particles maintain peri-implant bone mantle during osseointegration in osteoporotic bone. Bone, 2009, 45, 1117-1124.	2.9	27
113	Patient-specific bone modelling and remodelling simulation of hypoparathyroidism based on human iliac crest biopsies. Journal of Biomechanics, 2012, 45, 2411-2416.	2.1	27
114	Determination of vertebral and femoral trabecular morphology and stiffness using a flat-panel C-arm-based CT approach. Bone, 2012, 50, 200-208.	2.9	27
115	Should a native depth-dependent distribution of human meniscus constitutive components be considered in FEA-models of the knee joint?. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 38, 242-250.	3.1	27
116	Deficiency of inducible and endothelial nitric oxide synthase results in diminished bone formation and delayed union and nonunion development. Bone, 2016, 83, 111-118.	2.9	27
117	Validation of distal radius failure load predictions by homogenized- and micro-finite element analyses based on second-generation high-resolution peripheral quantitative CT images. Osteoporosis International, 2019, 30, 1433-1443.	3.1	27
118	Quality of life of adolescent idiopathic scoliosis patients under brace treatment: a brief communication of literature review. Quality of Life Research, 2021, 30, 703-711.	3.1	27
119	Notochordal-cell derived extracellular vesicles exert regenerative effects on canine and human nucleus pulposus cells. Oncotarget, 2017, 8, 88845-88856.	1.8	27
120	Simulations of trabecular remodeling and fatigue: Is remodeling helpful or harmful?. Bone, 2011, 48, 1210-1215.	2.9	26
121	On the Relative Relevance of Subject-Specific Geometries and Degeneration-Specific Mechanical Properties for the Study of Cell Death in Human Intervertebral Disk Models. Frontiers in Bioengineering and Biotechnology, 2015, 3, 5.	4.1	26
122	The effect of loading rate on the development of early damage in articular cartilage. Biomechanics and Modeling in Mechanobiology, 2017, 16, 263-273.	2.8	26
123	Collagen Damage Location in Articular Cartilage Differs if Damage is Caused by Excessive Loading Magnitude or Rate. Annals of Biomedical Engineering, 2018, 46, 605-615.	2.5	26
124	De novo neo-hyaline-cartilage from bovine organoids in viscoelastic hydrogels. Acta Biomaterialia, 2021, 128, 236-249.	8.3	26
125	Analysis of bone architecture sensitivity for changes in mechanical loading, cellular activity, mechanotransduction, and tissue properties. Biomechanics and Modeling in Mechanobiology, 2011, 10, 701-712.	2.8	25
126	Potential application of notochordal cells for intervertebral disc regeneration: an in vitro assessment. , 2014, 28, 68-81.		25

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127	Biomaterials for intervertebral disc regeneration: past performance and possible future strategies. , 2015, 30, 210-231.		25
128	Osteoblast-osteoclast co-cultures: A systematic review and map of available literature. PLoS ONE, 2021, 16, e0257724.	2.5	25
129	Tuning the differentiation of periosteum-derived cartilage using biochemical and mechanical stimulations. Osteoarthritis and Cartilage, 2010, 18, 1528-1535.	1.3	24
130	The Stimulatory Effect of Notochordal Cell-Conditioned Medium in a Nucleus Pulposus Explant Culture. Tissue Engineering - Part A, 2016, 22, 103-110.	3.1	24
131	Orbital seeding of mesenchymal stromal cells increases osteogenic differentiation and boneâ€like tissue formation. Journal of Orthopaedic Research, 2020, 38, 1228-1237.	2.3	24
132	The fate of bovine bone marrow stromal cells in hydrogels: a comparison to nucleus pulposus cells and articular chondrocytes. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 310-320.	2.7	23
133	Contribution of collagen fibers to the compressive stiffness of cartilaginous tissues. Biomechanics and Modeling in Mechanobiology, 2013, 12, 1221-1231.	2.8	23
134	The effect of tissue-engineered cartilage biomechanical and biochemical properties on its post-implantation mechanical behavior. Biomechanics and Modeling in Mechanobiology, 2013, 12, 43-54.	2.8	23
135	A novel approach to estimate trabecular bone anisotropy from stress tensors. Biomechanics and Modeling in Mechanobiology, 2015, 14, 39-48.	2.8	23
136	An Inflammatory Nucleus Pulposus Tissue Culture Model to Test Molecular Regenerative Therapies: Validation with Epigallocatechin 3-Gallate. International Journal of Molecular Sciences, 2016, 17, 1640.	4.1	23
137	Three-dimensional computational reconstruction of mixed anatomical tissues following histological preparation. Medical Engineering and Physics, 1999, 21, 111-117.	1.7	22
138	European Society of Biomechanics S.M. Perren Award 2010: An adaptation mechanism for fibrous tissue to sustained shortening. Journal of Biomechanics, 2010, 43, 3168-3176.	2.1	22
139	A sclerostin-based theory for strain-induced bone formation. Biomechanics and Modeling in Mechanobiology, 2011, 10, 663-670.	2.8	22
140	Influence of tissue- and cell-scale extracellular matrix distribution on the mechanical properties of tissue-engineered cartilage. Biomechanics and Modeling in Mechanobiology, 2013, 12, 901-913.	2.8	22
141	Notochordal Cell Matrix As a Therapeutic Agent for Intervertebral Disc Regeneration. Tissue Engineering - Part A, 2019, 25, 830-841.	3.1	22
142	Changes in scaffold porosity during bone tissue engineering in perfusion bioreactors considerably affect cellular mechanical stimulation for mineralization. Bone Reports, 2020, 12, 100265.	0.4	22
143	Inter-individual variability of bone density and morphology distribution in the proximal femur and T12 vertebra. Bone, 2014, 60, 213-220.	2.9	21
144	Intervertebral disc creep behavior assessment through an open source finite element solver. Journal of Biomechanics, 2014, 47, 297-301.	2.1	21

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145	The critical size of focal articular cartilage defects is associated with strains in the collagen fibers. Clinical Biomechanics, 2017, 50, 40-46.	1.2	21
146	Ex vivo Bone Models and Their Potential in Preclinical Evaluation. Current Osteoporosis Reports, 2021, 19, 75-87.	3.6	21
147	Notochordal Cell-Based Treatment Strategies and Their Potential in Intervertebral Disc Regeneration. Frontiers in Cell and Developmental Biology, 2021, 9, 780749.	3.7	21
148	Longitudinal as well as age-matched assessments of bone changes in the mature ovariectomized rat model. Laboratory Animals, 2009, 43, 266-271.	1.0	20
149	Using notochordal cells of developmental origin to stimulate nucleus pulposus cells and bone marrow stromal cells for intervertebral disc regeneration. European Spine Journal, 2014, 23, 679-688.	2.2	20
150	Reduced tonicity stimulates an inflammatory response in nucleus pulposus tissue that can be limited by a COXâ€2â€specific inhibitor. Journal of Orthopaedic Research, 2015, 33, 1724-1731.	2.3	20
151	A tissue adaptation model based on strain-dependent collagen degradation and contact-guided cell traction. Journal of Biomechanics, 2015, 48, 823-831.	2.1	19
152	Increased caveolin-1 in intervertebral disc degeneration facilitates repair. Arthritis Research and Therapy, 2016, 18, 59.	3.5	19
153	Viscoelastic cervical total disc replacement devices: Design concepts. Spine Journal, 2020, 20, 1911-1924.	1.3	19
154	A comprehensive tool box for large animal studies of intervertebral disc degeneration. JOR Spine, 2021, 4, e1162.	3.2	19
155	Alterations in femoral and acetabular bone strains immediately following cementless total hip arthroplasty: An in vitro canine study. Journal of Orthopaedic Research, 1991, 9, 738-748.	2.3	18
156	Title is missing!. Spine, 2003, 28, 973-981.	2.0	18
157	Biomechanical Behavior of a Biomimetic Artificial Intervertebral Disc. Spine, 2012, 37, E367-E373.	2.0	18
158	Intra-arterial alcoholization of advanced hepatocellular carcinoma. Cancer Chemotherapy and Pharmacology, 1994, 33, S42-S47.	2.3	17
159	Residual periosteum tension is insufficient to directly modulate bone growth. Journal of Biomechanics, 2009, 42, 152-157.	2.1	17
160	Locally measured microstructural parameters are better associated with vertebral strength than whole bone density. Osteoporosis International, 2014, 25, 1285-1296.	3.1	17
161	Comparison between in vitro and in vivo cartilage overloading studies based on a systematic literature review. Journal of Orthopaedic Research, 2018, 36, 2076-2086.	2.3	17
162	Serum deprivation limits loss and promotes recovery of tenogenic phenotype in tendon cell culture systems. Journal of Orthopaedic Research, 2020, 39, 1561-1571.	2.3	17

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163	Fluid flowâ€induced cell stimulation in bone tissue engineering changes due to interstitial tissue formation in vitro. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3342.	2.1	17
164	An experimental two degrees-of-freedom actuated external fixator for in vivo investigation of fracture healing. Medical Engineering and Physics, 2003, 25, 335-340.	1.7	16
165	Deformation Thresholds for Chondrocyte Death and the Protective Effect of the Pericellular Matrix. Tissue Engineering - Part A, 2014, 20, 1870-1876.	3.1	16
166	Bone Morphogenetic Protein-2, But Not Mesenchymal Stromal Cells, Exert Regenerative Effects on Canine and Human Nucleus Pulposus Cells. Tissue Engineering - Part A, 2017, 23, 233-242.	3.1	16
167	Sliding Indentation Enhances Collagen Content and Depth-Dependent Matrix Distribution in Tissue-Engineered Cartilage Constructs. Tissue Engineering - Part A, 2013, 19, 1949-1959.	3.1	15
168	Link-N: The missing link towards intervertebral disc repair is species-specific. PLoS ONE, 2017, 12, e0187831.	2.5	15
169	Porous Geometry Guided Micro-mechanical Environment Within Scaffolds for Cell Mechanobiology Study in Bone Tissue Engineering. Frontiers in Bioengineering and Biotechnology, 2021, 9, 736489.	4.1	15
170	An ex vivo human osteochondral culture model. Journal of Orthopaedic Research, 2021, 39, 871-879.	2.3	14
171	Misaligned spinal rods can induce high internal forces consistent with those observed to cause screw pullout and disc degeneration. Spine Journal, 2021, 21, 528-537.	1.3	14
172	Cell Sources for Human In vitro Bone Models. Current Osteoporosis Reports, 2021, 19, 88-100.	3.6	14
173	Intracellular tension in periosteum/perichondrium cells regulates long bone growth. Journal of Orthopaedic Research, 2011, 29, 84-91.	2.3	13
174	Injectable Hydrogels for Articular Cartilage and Nucleus Pulposus Repair: Status Quo and Prospects. Tissue Engineering - Part A, 2022, 28, 478-499.	3.1	13
175	Rapidly Progressive Pulmonary Alveolar Proteinosis in a Patient with Chronic Myelogenous Leukemia.. Internal Medicine, 1994, 33, 710-713.	0.7	12
176	Subsidence of SB CharitÃ© total disc replacement and the role of undersizing. European Spine Journal, 2013, 22, 2264-2270.	2.2	12
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