Sibylle Grad

List of Publications by Year
in descending order

151 papers	7,638 citations	50276 46 h-index	71685 76 g-index
165 all docs	165 docs citations	165 times ranked	5714 citing authors

#	Article	IF	Citations
1	Exhaustion of nucleus pulposus progenitor cells with ageing and degeneration of the intervertebral disc. Nature Communications, 2012, 3, 1264.	12.8	357
2	The use of biodegradable polyurethane scaffolds for cartilage tissue engineering: potential and limitations. Biomaterials, 2003, 24, 5163-5171.	11.4	254
3	Advancing the cellular and molecular therapy for intervertebral disc disease. Advanced Drug Delivery Reviews, 2015, 84, 159-171.	13.7	239
4	Diversity of intervertebral disc cells: phenotype and function. Journal of Anatomy, 2012, 221, 480-496.	1.5	237
5	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
6	An injectable vehicle for nucleus pulposus cell-based therapy. Biomaterials, 2011, 32, 2862-2870.	11.4	203
7	A phenotypic comparison of intervertebral disc and articular cartilage cells in the rat. European Spine Journal, 2007, 16, 2174-2185.	2.2	183
8	Challenges and strategies in the repair of ruptured annulus fibrosus. , 2013, 25, 1-21.		181
9	A combination of shear and dynamic compression leads to mechanically induced chondrogenesis of human mesenchymal stem cells. , 2011, 22, 214-225.		155
10	Variations in gene and protein expression in human nucleus pulposus in comparison with annulus fibrosus and cartilage cells: potential associations with aging and degeneration. Osteoarthritis and Cartilage, 2010, 18, 416-423.	1.3	147
11	Physical Stimulation of Chondrogenic Cells In Vitro: A Review. Clinical Orthopaedics and Related Research, 2011, 469, 2764-2772.	1.5	147
12	Fibrinâ€"Polyurethane Composites for Articular Cartilage Tissue Engineering: A Preliminary Analysis. Tissue Engineering, 2005, 11, 1562-1573.	4.6	144
13	Role of hypoxia and growth and differentiation factor-5 on differentiation of human mesenchymal stem cells towards intervertebral nucleus pulposus-like cells. , 2011, 21, 533-547.		144
14	Effects of Immobilization and Dynamic Compression on Intervertebral Disc Cell Gene Expression In Vivo. Spine, 2003, 28, 973-981.	2.0	135
15	Surface Motion Upregulates Superficial Zone Protein and Hyaluronan Production in Chondrocyte-Seeded Three-Dimensional Scaffolds. Tissue Engineering, 2005, 11, 249-256.	4.6	133
16	Association of the Asporin D14 Allele with Lumbar-Disc Degeneration in Asians. American Journal of Human Genetics, 2008, 82, 744-747.	6.2	132
17	An injectable cross-linked scaffold for nucleus pulposus regeneration. Biomaterials, 2008, 29, 438-447.	11.4	131
18	Differential Phenotype of Intervertebral Disc Cells. Spine, 2009, 34, 1448-1456.	2.0	123

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19	Cells and biomaterials in cartilage tissue engineering. Regenerative Medicine, 2009, 4, 81-98.	1.7	115
20	Small molecule-based treatment approaches for intervertebral disc degeneration: Current options and future directions. Theranostics, 2021, 11, 27-47.	10.0	101
21	The Combined Effects of Limited Nutrition and High-Frequency Loading on Intervertebral Discs With Endplates. Spine, 2010, 35, 1744-1752.	2.0	100
22	Tribology Approach to the Engineering and Study of Articular Cartilage. Tissue Engineering, 2004, 10, 1436-1445.	4.6	98
23	Injectable thermoreversible hyaluronan-based hydrogels for nucleus pulposus cell encapsulation. European Spine Journal, 2012, 21, 839-849.	2.2	98
24	Thermoreversible hyaluronan-based hydrogel supports inÂvitro and exÂvivo disc-like differentiation of human mesenchymal stem cells. Spine Journal, 2013, 13, 1627-1639.	1.3	93
25	Homing of Mesenchymal Stem Cells in Induced Degenerative Intervertebral Discs in a Whole Organ Culture System. Spine, 2012, 37, 1865-1873.	2.0	91
26	A combined biomaterial and cellular approach for annulus fibrosus rupture repair. Biomaterials, 2015, 42, 11-19.	11.4	91
27	Effects of Simple and Complex Motion Patterns on Gene Expression of Chondrocytes Seeded in 3D Scaffolds. Tissue Engineering, 2006, 12, 3171-3179.	4.6	81
28	Critical aspects and challenges for intervertebral disc repair and regenerationâ€"Harnessing advances in tissue engineering. JOR Spine, 2018, 1, e1029.	3.2	79
29	The effect of hyaluronan-based delivery of stromal cell-derived factor-1 on the recruitment of MSCs in degenerating intervertebral discs. Biomaterials, 2014, 35, 8144-8153.	11.4	78
30	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
31	Bioreactor mechanically guided 3D mesenchymal stem cell chondrogenesis using a biocompatible novel thermo-reversible methylcellulose-based hydrogel. Scientific Reports, 2017, 7, 45018.	3.3	77
32	Vascular endothelial growth factor serum level is strongly enhanced after burn injury and correlated with local and general tissue edema. Burns, 2004, 30, 305-311.	1.9	76
33	CCL5/RANTES is a key chemoattractant released by degenerative intervertebral discs in organ culture. , 2014, 27, 124-136.		75
34	Optimization of hyaluronic acid-tyramine/silk-fibroin composite hydrogels for cartilage tissue engineering and delivery of anti-inflammatory and anabolic drugs. Materials Science and Engineering C, 2021, 120, 111701.	7.3	72
35	Effect of reduced oxygen tension and long-term mechanical stimulation on chondrocyte-polymer constructs. Cell and Tissue Research, 2008, 331, 473-483.	2.9	70
36	Identification of cell surface-specific markers to target human nucleus pulposus cells: Expression of carbonic anhydrase XII varies with age and degeneration. Arthritis and Rheumatism, 2011, 63, 3876-3886.	6.7	68

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37	Tribology Approach to the Engineering and Study of Articular Cartilage. Tissue Engineering, 2004, 10, 1436-1445.	4.6	68
38	Differential response of human bone marrow stromal cells to either TGF-Î²1 or rhGDF-5. European Spine Journal, 2011, 20, 962-971.	2.2	67
39	Evaluation of biomimetic hyaluronic-based hydrogels with enhanced endogenous cell recruitment and cartilage matrix formation. Acta Biomaterialia, 2020, 101, 293-303.	8.3	66
40	Chondrocytes seeded onto poly (L/DL-lactide) 80%/20% porous scaffolds: A biochemical evaluation. Journal of Biomedical Materials Research Part B, 2003, 66A, 571-579.	3.1	63
41	Cell therapy for intervertebral disc repair: advancing cell therapy from bench to clinics. , 2014, 27s, 5-11.		61
42	Sliding motion modulates stiffness and friction coefficient at the surface of tissue engineered cartilage. Osteoarthritis and Cartilage, 2012, 20, 288-295.	1.3	58
43	Migration of bone marrowâ€“derived cells for endogenous repair in a new tail-looping disc degeneration model in the mouse: a pilot study. Spine Journal, 2015, 15, 1356-1365.	1.3	56
44	Angiopoietin-1 receptor Tie2 distinguishes multipotent differentiation capability in bovine coccygeal nucleus pulposus cells. Stem Cell Research and Therapy, 2016, 7, 75.	5.5	55
45	An intervertebral disc whole organ culture system to investigate proinflammatory and degenerative disc disease condition. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e2051-e2061.	2.7	55
46	Effects of hypobaric hypoxia on vascular endothelial growth factor and the acute phase response in subjects who are susceptible to high-altitude pulmonary oedema. European Journal of Applied Physiology, 2000, 81, 497-503.	2.5	53
47	Gene Expression Profiling Identifies Interferon Signalling Molecules and IGFBP3 in Human Degenerative Annulus Fibrosus. Scientific Reports, 2015, 5, 15662.	3.3	53
48	Chondrocyte gene expression under applied surface motion. Biorheology, 2006, 43, 259-69.	0.4	52
49	Polyurethane scaffold with in situ swelling capacity for nucleus pulposus replacement. Biomaterials, 2016, 84, 196-209.	11.4	50
50	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
51	Bioprinting Tissue Analogues with Decellularized Extracellular Matrix Bioink for Regeneration and Tissue Models of Cartilage and Intervertebral Discs. Advanced Functional Materials, 2020, 30, 1909044.	14.9	48
52	Animal Models of Osteochondral Defect for Testing Biomaterials. Biochemistry Research International, 2020, 2020, 1-12.	3.3	48
53	The roles and perspectives of microRNAs as biomarkers for intervertebral disc degeneration. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 3481-3487.	2.7	46
54	Heterodimeric BMPâ€2/7 for nucleus pulposus regenerationâ€"In vitro and ex vivo studies. Journal of Orthopaedic Research, 2017, 35, 51-60.	2.3	45

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55	Different response of articular chondrocyte subpopulations to surface motion. Osteoarthritis and Cartilage, 2007, 15, 1034-1041.	1.3	44
56	Biomimetic fibrinâ€"hyaluronan hydrogels for nucleus pulposus regeneration. Regenerative Medicine, 2014, 9, 309-326.	1.7	44
57	Successful fishing for nucleus pulposus progenitor cells of the intervertebral disc across species. JOR Spine, 2018, 1, e1018.	3.2	44
58	Systemic blood plasma CCL5 and CXCL6: Potential biomarkers for human lumbar disc degeneration. , 2016, 31, 1-10.		44
59	The Transpedicular Approach As an Alternative Route for Intervertebral Disc Regeneration. Spine, 2013, 38, E319-E324.	2.0	43
60	Platelet-rich plasma induces annulus fibrosus cell proliferation and matrix production. European Spine Journal, 2014, 23, 745-753.	2.2	42
61	Mechanically stimulated osteochondral organ culture for evaluation of biomaterials in cartilage repair studies. Acta Biomaterialia, 2018, 81, 256-266.	8.3	40
62	Uncovering the secretome of mesenchymal stromal cells exposed to healthy, traumatic, and degenerative intervertebral discs: a proteomic analysis. Stem Cell Research and Therapy, 2021, 12, 11.	5.5	38
63	Mesenchymal Stem/Stromal Cells seeded on cartilaginous endplates promote Intervertebral Disc Regeneration through Extracellular Matrix Remodeling. Scientific Reports, 2016, 6, 33836.	3.3	37
64	Ageing affects chondroitin sulfates and their synthetic enzymes in the intervertebral disc. Signal Transduction and Targeted Therapy, 2017, 2, 17049.	17.1	37
65	Mechanical loading of intervertebral disc modulates microglia proliferation, activation, and chemotaxis. Osteoarthritis and Cartilage, 2018, 26, 978-987.	1.3	37
66	CD146/MCAM distinguishes stem cell subpopulations with distinct migration and regenerative potential in degenerative intervertebral discs. Osteoarthritis and Cartilage, 2019, 27, 1094-1105.	1.3	37
67	Farsenolâ€modified biodegradable polyurethanes for cartilage tissue engineering. Journal of Biomedical Materials Research - Part A, 2010, 92A, 393-408.	4.0	35
68	Particulate cartilage under bioreactor-induced compression and shear. International Orthopaedics, 2014, 38, 1105-1111.	1.9	33
69	Injectable hyaluronic acid down-regulates interferon signaling molecules, IGFBP3 and IFIT3 in the bovine intervertebral disc. Acta Biomaterialia, 2017, 52, 118-129.	8.3	33
70	Anti-Inflammatory and Chondroprotective Effects of Vanillic Acid and Epimedin C in Human Osteoarthritic Chondrocytes. Biomolecules, 2020, 10, 932.	4.0	33
71	The Application of Mesenchymal Stromal Cells and Their Homing Capabilities to Regenerate the Intervertebral Disc. International Journal of Molecular Sciences, 2021, 22, 3519.	4.1	33
72	Enhanced chondrogenic phenotype of primary bovine articular chondrocytes in Fibrin-Hyaluronan hydrogel by multi-axial mechanical loading and FGF18. Acta Biomaterialia, 2020, 105, 170-179.	8.3	31

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73	The Tissue Renin-Angiotensin System and Its Role in the Pathogenesis of Major Human Diseases: Quo Vadis?. Cells, 2021, 10, 650.	4.1	31
74	Hyaluronic acid-based interpenetrating network hydrogel as a cell carrier for nucleus pulposus repair. Carbohydrate Polymers, 2022, 277, 118828.	10.2	31
75	Biodegradable Electrospun Scaffolds for Annulus Fibrosus Tissue Engineering: Effect of Scaffold Structure and Composition on Annulus Fibrosus Cells<i>In Vitro</i>. Tissue Engineering - Part A, 2014, 20, 140123085256009.	3.1	30
76	Intervertebral disc organ culture for the investigation of disc pathology and regeneration â€“ benefits, limitations, and future directions of bioreactors. Connective Tissue Research, 2020, 61, 304-321.	2.3	30
77	Potential and Limitations of Intervertebral Disc Endogenous Repair. Current Stem Cell Research and Therapy, 2015, 10, 329-338.	1.3	30
78	Effect of cyclic mechanical loading on immunoinflammatory microenvironment in biofabricating hydroxyapatite scaffold for bone regeneration. Bioactive Materials, 2021, 6, 3097-3108.	15.6	29
79	Physicobiochemical Synergism Through Gene Therapy and Functional Tissue Engineering for <i>In Vitro</i> Chondrogenesis. Tissue Engineering - Part A, 2009, 15, 2513-2524.	3.1	28
80	A papain-induced disc degeneration model for the assessment of thermo-reversible hydrogel-cells therapeutic approach. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, E167-E176.	2.7	28
81	CD146 defines commitment of cultured annulus fibrosus cells to express a contractile phenotype. Journal of Orthopaedic Research, 2016, 34, 1361-1372.	2.3	28
82	Influence of extremely low frequency, low energy electromagnetic fields and combined mechanical stimulation on chondrocytes in 3â€Ð constructs for cartilage tissue engineering. Bioelectromagnetics, 2014, 35, 116-128.	1.6	27
83	Mesenchymal Stem Cell Homing Into Intervertebral Discs Enhances the Tie2-positive Progenitor Cell Population, Prevents Cell Death, and Induces a Proliferative Response. Spine, 2019, 44, 1613-1622.	2.0	27
84	Preclinical ex-vivo Testing of Anti-inflammatory Drugs in a Bovine Intervertebral Degenerative Disc Model. Frontiers in Bioengineering and Biotechnology, 2020, 8, 583.	4.1	26
85	Development of an ex vivo cavity model to study repair strategies in loaded intervertebral discs. European Spine Journal, 2016, 25, 2898-2908.	2.2	25
86	Kartogenin hydrolysis product 4-aminobiphenyl distributes to cartilage and mediates cartilage regeneration. Theranostics, 2019, 9, 7108-7121.	10.0	25
87	Functional cell phenotype induction with TGF-Î²1 and collagen-polyurethane scaffold for annulus fibrosus rupture repair. , 2020, 39, 1-17.		24
88	The effect of sliding velocity on chondrocytes activity in 3D scaffolds. Journal of Biomechanics, 2009, 42, 424-429.	2.1	23
89	A Nucleotomy Model with Intact Annulus Fibrosus to Test Intervertebral Disc Regeneration Strategies. Tissue Engineering - Part C: Methods, 2015, 21, 1117-1124.	2.1	23
90	Effect and mechanism of psoralidin on promoting osteogenesis and inhibiting adipogenesis. Phytomedicine, 2019, 61, 152860.	5.3	23

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91	Proinflammatory intervertebral disc cell and organ culture models induced by tumor necrosis factor alpha. JOR Spine, 2020, 3, e1104.	3.2	23
92	Varying Regional Topology Within Knee Articular Chondrocytes Under Simulated <i>In Vivo</i> Conditions. Tissue Engineering - Part A, 2011, 17, 451-461.	3.1	22
93	Effect of the CCL5-Releasing Fibrin Gel for Intervertebral Disc Regeneration. Cartilage, 2020, 11, 169-180.	2.7	22
94	Morphological and biomechanical effects of annulus fibrosus injury and repair in an ovine cervical model. JOR Spine, 2020, 3, e1074.	3.2	22
95	A Hyaluronan and Platelet-Rich Plasma Hydrogel for Mesenchymal Stem Cell Delivery in the Intervertebral Disc: An Organ Culture Study. International Journal of Molecular Sciences, 2021, 22, 2963.	4.1	22
96	Confocal Imaging Protocols for Live/Dead Staining in Three-Dimensional Carriers. Methods in Molecular Biology, 2011, 740, 127-140.	0.9	21
97	Isolation of highâ€quality RNA from intervertebral disc tissue via pronase predigestion and tissue pulverization. JOR Spine, 2018, 1, e1017.	3.2	21
98	One strike loading organ culture model to investigate the post-traumatic disc degenerative condition. Journal of Orthopaedic Translation, 2021, 26, 141-150.	3.9	21
99	Poly(Î³-glutamic acid) and poly(Î³-glutamic acid)-based nanocomplexes enhance type II collagen production in intervertebral disc. Journal of Materials Science: Materials in Medicine, 2017, 28, 6.	3.6	20
100	Bioreactor-Induced Chondrocyte Maturation Is Dependent on Cell Passage and Onset of Loading. Cartilage, 2013, 4, 165-176.	2.7	19
101	Regulation of Inflammatory Response in Human Osteoarthritic Chondrocytes by Novel Herbal Small Molecules. International Journal of Molecular Sciences, 2019, 20, 5745.	4.1	19
102	A comprehensive tool box for large animal studies of intervertebral disc degeneration. JOR Spine, 2021, 4, e1162.	3.2	19
103	Unique glycosignature for intervertebral disc and articular cartilage cells and tissues in immaturity and maturity. Scientific Reports, 2016, 6, 23062.	3.3	18
104	Fibrin-Hyaluronic Acid Hydrogel (RegenoGel) with Fibroblast Growth Factor-18 for In Vitro 3D Culture of Human and Bovine Nucleus Pulposus Cells. International Journal of Molecular Sciences, 2019, 20, 5036.	4.1	18
105	Induction of Osteogenic Differentiation by Nanostructured Alumina Surfaces. Journal of Biomedical Nanotechnology, 2014, 10, 831-845.	1.1	17
106	Intervertebral disc response to stem cell treatment is conditioned by disc state and cell carrier: An exÂvivo study. Journal of Orthopaedic Translation, 2017, 9, 43-51.	3.9	16
107	Autologous Chondrocyte Implantation in Osteoarthritic Surroundings: TNFÎ± and Its Inhibition by Adalimumab in a Knee-Specific Bioreactor. American Journal of Sports Medicine, 2018, 46, 431-440.	4.2	16
108	Serum biomarkers for Modic changes in patients with chronic low back pain. European Spine Journal, 2021, 30, 1018-1027.	2.2	16

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109	Direct and Intervertebral DiscMediated Sensitization of Dorsal Root Ganglion Neurons by Hypoxia and Low pH. Neurospine, 2020, 17, 42-59.	2.9	16
110	Evaluation of the influence of platelet-rich plasma (PRP), platelet lysate (PL) and mechanical loading on chondrogenesis in vitro. Scientific Reports, 2021, 11, 20188.	3.3	16
111	Fluorescence-Activated Cell Sorting Is More Potent to Fish Intervertebral Disk Progenitor Cells Than Magnetic and Beads-Based Methods. Tissue Engineering - Part C: Methods, 2019, 25, 571-580.	2.1	15
112	Cells and Biomaterials for Intervertebral Disc Regeneration. Synthesis Lectures on Tissue Engineering, 2010, 2, 1-104.	0.3	14
113	Hyaluronan supplementation as a mechanical regulator of cartilage tissue development under joint-kinematic-mimicking loading. Journal of the Royal Society Interface, 2017, 14, 20170255.	3.4	14
114	The tissue-renin-angiotensin-system of the human intervertebral disc. , 2020, 40, 115-132.		14
115	Physiological Cartilage Tissue Engineering. International Review of Cell and Molecular Biology, 2011, 289, 37-87.	3.2	13
116	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
117	A single-cell transcriptome of mesenchymal stromal cells to fabricate bioactive hydroxyapatite materials for bone regeneration. Bioactive Materials, 2022, 9, 281-298.	15.6	12
118	Mesenchymal stem cell chondrogenesis: composite growth factorâ€"bioreactor synergism for human stem cell chondrogenesis. Regenerative Medicine, 2013, 8, 157-170.	1.7	10
119	The Effect of Zoledronic Acid on Serum Biomarkers among Patients with Chronic Low Back Pain and Modic Changes in Lumbar Magnetic Resonance Imaging. Diagnostics, 2019, 9, 212.	2.6	10
120	In Vitro Model to Investigate Communication between Dorsal Root Ganglion and Spinal Cord Glia. International Journal of Molecular Sciences, 2021, 22, 9725.	4.1	10
121	Stromal Cell Derived Factor-1-Mediated Migration of Mesenchymal Stem Cells Enhances Collagen Type II Expression in Intervertebral Disc. Tissue Engineering - Part A, 2018, 24, 1818-1830.	3.1	10
122	Quality control methods in musculoskeletal tissue engineering: from imaging to biosensors. Bone Research, 2021, 9, 46.	11.4	10
123	Small molecules of herbal origin for osteoarthritis treatment: in vitro and in vivo evidence. Arthritis Research and Therapy, 2022, 24, 105.	3.5	10
124	Isolation and Characterisation of a Recombinant Antibody Fragment That Binds NCAM1-Expressing Intervertebral Disc Cells. PLoS ONE, 2013, 8, e83678.	2.5	9
125	The effect of hyaluronic acid on nucleus pulposus extracellular matrix production through hypoxia-inducible factor-1Î± transcriptional activation of CD44 under hypoxia. , 2021, 41, 142-152.		9
126	Mechanical and biological characterization of a composite annulus fibrosus repair strategy in an endplate delamination model. JOR Spine, 2020, 3, e1107.	3.2	8

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127	An impaired healing model of osteochondral defect in papain-induced arthritis. Journal of Orthopaedic Translation, 2021, 26, 101-110.	3.9	8
128	Endogenous Cell Homing for Intervertebral Disk Regeneration. Journal of the American Academy of Orthopaedic Surgeons, The, 2015, 23, 264-266.	2.5	7
129	Therapeutic Strategies for IVD Regeneration through Hyaluronan/SDF-1-Based Hydrogel and Intravenous Administration of MSCs. International Journal of Molecular Sciences, 2021, 22, 9609.	4.1	7
130	Comparison and optimization of sheep in vivo intervertebral disc injury model. JOR Spine, 2022, 5, .	3.2	7
131	In Vitro Evaluation of a Nanoparticle-Based mRNA Delivery System for Cells in the Joint. Biomedicines, 2021, 9, 794.	3.2	6
132	Mechanical Stress Inhibits Early Stages of Endogenous Cell Migration: A Pilot Study in an Ex Vivo Osteochondral Model. Polymers, 2020, 12, 1754.	4.5	5
133	Identification and Characterization of Serum microRNAs as Biomarkers for Human Disc Degeneration: An RNA Sequencing Analysis. Diagnostics, 2020, 10, 1063.	2.6	5
134	Hypoxic stress enhances extension and branching of dorsal root ganglion neuronal outgrowth. JOR Spine, 2020, 3, e1090.	3.2	5
135	Noninvasive multimodal fluorescence and magnetic resonance imaging of whole-organ intervertebral discs. Biomedical Optics Express, 2021, 12, 3214.	2.9	5
136	A Proinflammatory, Degenerative Organ Culture Model to Simulate Early-Stage Intervertebral Disc Disease.. Journal of Visualized Experiments, 2021, , .	0.3	4
137	Transcriptional profiling of intervertebral disc in a postâ€traumatic early degeneration organ culture model. JOR Spine, 2021, 4, e1146.	3.2	4
138	The function of CD146 in human annulus fibrosus cells and mechanism of the regulation by TGFâ€Î². Journal of Orthopaedic Research, 2022, 40, 1661-1671.	2.3	3
139	Establishment of an Ex Vivo Inflammatory Osteoarthritis Model With Human Osteochondral Explants. Frontiers in Bioengineering and Biotechnology, 2021, 9, 787020.	4.1	3
140	Hyaluronan-based hydrogel delivering antimiR-221 for the guidance of endogenous cartilage repair. Osteoarthritis and Cartilage, 2018, 26, S163.	1.3	2
141	Does Riluzole Influence Bone Formation?. Spine, 2019, 44, 1107-1117.	2.0	2
142	Angiotensin II Type 1 Receptor Antagonist Losartan Inhibits TNF-Î±-Induced Inflammation and Degeneration Processes in Human Nucleus Pulposus Cells. Applied Sciences (Switzerland), 2021, 11, 417.	2.5	2
143	Neoepitope fragments as biomarkers for different phenotypes of intervertebral disc degeneration. JOR Spine, 2022, 5, .	3.2	2
144	Developing Bioreactors to Host Joint-Derived Tissues That Require Mechanical Stimulation. , 2019, , 261-261.		1

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145	Comparison of different transfection methods for mRNA delivery in articular joint cells. Osteoarthritis and Cartilage, 2020, 28, S197-S198.	1.3	1
146	Effect of nanoparticle based mrna delivery on modulation of inflammation in an osteochondral inflammation model. Osteoarthritis and Cartilage, 2021, 29, S13.	1.3	1
147	Editorial â€“ Disc Biology Special Issue. , 2022, 43, 1-3.		1
148	Thermoreversible Hyaluronan-Based Hydrogels Support Mesenchymal Stem Cells Disc-Like Differentiation In Vitro and Ex-Vivo. Spine Journal, 2012, 12, S63-S64.	1.3	0
149	Stem Cell-Based Intervertebral Disc Regeneration: Evaluation in Organ Culture. Spine Journal, 2014, 14, S62.	1.3	0
150	Intervertebral Disc Whole Organ Cultures. , 2018, , 67-101.		0
151	Cell Recruitment for Intervertebral Disc. , 2018, , 155-182.		0