

Neil A Duncan

List of Publications by Year in descending order

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39
papers

2,429
citations

304743

22
h-index

414414

32
g-index

39
all docs

39
docs citations

39
times ranked

2049
citing authors

#	ARTICLE	IF	CITATIONS
1	1998 Volvo Award Winner in Biomechanical Studies. <i>Spine</i> , 1998, 23, 2493-2506.	2.0	357
2	The Notochordal Cell in the Nucleus Pulposus: A Review in the Context of Tissue Engineering. <i>Tissue Engineering</i> , 2003, 9, 667-677.	4.6	259
3	Cytomorphology of notochordal and chondrocytic cells from the nucleus pulposus: a species comparison. <i>Journal of Anatomy</i> , 2004, 205, 357-362.	1.5	250
4	Material properties of the human calcaneal fat pad in compression: experiment and theory. <i>Journal of Biomechanics</i> , 2002, 35, 1523-1531.	2.1	180
5	Radial tensile properties of the lumbar annulus fibrosus are site and degeneration dependent. <i>Journal of Orthopaedic Research</i> , 1997, 15, 814-819.	2.3	154
6	Regional variations in the cellular matrix of the annulus fibrosus of the intervertebral disc. <i>Journal of Anatomy</i> , 2002, 201, 159-171.	1.5	150
7	Bioprocessing of Mesenchymal Stem Cells and Their Derivatives: Toward Cell-Free Therapeutics. <i>Stem Cells International</i> , 2018, 2018, 1-23.	2.5	119
8	The three-dimensional architecture of the notochordal nucleus pulposus: novel observations on cell structures in the canine intervertebral disc. <i>Journal of Anatomy</i> , 2003, 202, 279-291.	1.5	98
9	The Effect of Facet Geometry on the Axial Torque-Rotation Response of Lumbar Motion Segments. <i>Spine</i> , 1990, 15, 391-401.	2.0	95
10	ISSLS Prize Winner: Collagen Fibril Sliding Governs Cell Mechanics in the Anulus Fibrosus. <i>Spine</i> , 2004, 29, 2612-2620.	2.0	90
11	In situ intercellular mechanics of the bovine outer annulus fibrosus subjected to biaxial strains. <i>Journal of Biomechanics</i> , 2004, 37, 223-231.	2.1	70
12	Ligament tension pattern in the flexed knee in combined passive anterior translation and axial rotation. <i>Journal of Orthopaedic Research</i> , 1992, 10, 854-867.	2.3	65
13	Anisotropic shear behavior of the annulus fibrosus: effect of harvest site and tissue prestrain. <i>Medical Engineering and Physics</i> , 2000, 22, 349-357.	1.7	63
14	The Functional Significance of Cell Clusters in the Notochordal Nucleus Pulposus. <i>Spine</i> , 2004, 29, 1099-1104.	2.0	58
15	Frozen Storage Affects the Compressive Creep Behavior of the Porcine Intervertebral Disc. <i>Spine</i> , 1997, 22, 2867-2876.	2.0	57
16	In Vitro Measurement of the Tracking Pattern of the Human Patella. <i>Journal of Biomechanical Engineering</i> , 1999, 121, 222-228.	1.3	52
17	Correlation of Patellar Tracking Pattern With Trochlear and Retropatellar Surface Topographies. <i>Journal of Biomechanical Engineering</i> , 2000, 122, 652-660.	1.3	50
18	The Role of Axial Rotation in the Etiology of Unilateral Disc Prolapse. <i>Spine</i> , 1991, 16, 1089-1098.	2.0	46

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19	Non-uniform strain distribution within rat cartilaginous growth plate under uniaxial compression. <i>Journal of Biomechanics</i> , 2007, 40, 149-156.	2.1	35
20	A voltage-dependent K ⁺ current contributes to membrane potential of acutely isolated canine articular chondrocytes. <i>Journal of Physiology</i> , 2004, 557, 93-104.	2.9	34
21	Static Compressive Loading Reduces the mRNA Expression of Type II and X Collagen in Rat Growth-Plate Chondrocytes During Postnatal Growth. <i>Connective Tissue Research</i> , 2005, 46, 211-219.	2.3	27
22	The Effect of Mechanical Stimulation on Mineralization in Differentiating Osteoblasts in Collagen-I Scaffolds. <i>Tissue Engineering - Part A</i> , 2014, 20, 3142-3153.	3.1	25
23	Cell Deformation and Micromechanical Environment in the Intervertebral Disc. <i>Journal of Bone and Joint Surgery - Series A</i> , 2006, 88, 47-51.	3.0	16
24	Production of Mesenchymal Progenitor Cell-Derived Extracellular Vesicles in Suspension Bioreactors for Use in Articular Cartilage Repair. <i>Stem Cells Translational Medicine</i> , 2022, 11, 73-87.	3.3	16
25	Strain transfer in the annulus fibrosus under applied flexion. <i>Journal of Biomechanics</i> , 2010, 43, 2141-2148.	2.1	15
26	<i>In situ</i> cell matrix mechanics in tendon fascicles and seeded collagen gels: implications for the multiscale design of biomaterials. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 39-47.	1.6	13
27	The Role of Gap Junctions and Mechanical Loading on Mineral Formation in a Collagen-I Scaffold Seeded with Osteoprogenitor Cells. <i>Tissue Engineering - Part A</i> , 2015, 21, 1720-1732.	3.1	11
28	Reduction of pluripotent gene expression in murine embryonic stem cells exposed to mechanical loading or Cyclo RGD peptide. <i>BMC Cell Biology</i> , 2017, 18, 32.	3.0	9
29	Effect of mechanical strain on the pluripotency of murine embryonic stem cells seeded in a collagen scaffold. <i>Journal of Orthopaedic Research</i> , 2018, 36, 799-807.	2.3	5
30	Intercellular communication via gap junctions affected by mechanical load in the bovine annulus fibrosus. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 64-71.	1.6	4
31	Apparatus to Determine the Macroscopic and Microscopic Biaxial Swelling Response of the Annulus Fibrosus. , 2002, , .		2
32	<i>IL-1Ra</i> deficiency accelerates intervertebral disc degeneration in <i>C57BL/6</i> mice. <i>JOR Spine</i> , 0, , .	3.2	2
33	Stem Cell-Based Tissue Engineering for Bone Repair. <i>Computational Methods in Applied Sciences</i> (Springer), 2014, , 1-30.	0.3	1
34	Repetitive in vivo manual loading of the spine elicits cellular responses in porcine annuli fibrosi. <i>PLoS ONE</i> , 2021, 16, e0248104.	2.5	1
35	Simulation of Tissue Differentiation During Fracture Healing Within a Collagenous Scaffold Implanted in a Murine Tibia With an Oblique Fracture. , 2012, , .		0
36	A New System for Cyclical Tensile Loading of Cultured Connective Tissue Cells in a Three-Dimensional Gel Matrix. , 2002, , .		0

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37	Enzymatic Digestion Technique Influences Regulatory Volume Decrease of Isolated Bovine Chondrocytes. , 2002, , .		0
38	Modelling the Ion Channel Behaviour of Articular Chondrocytes. , 2002, , .		0
39	CELL DEFORMATION AND MICROMECHANICAL ENVIRONMENT IN THE INTERVERTEBRAL DISC. Journal of Bone and Joint Surgery - Series A, 2006, 88, 47-51.	3.0	0