

Stephen J Ferguson

List of Publications by Year in descending order

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Version: 2024-02-01

225
papers

10,291
citations

61687

45
h-index

51423

90
g-index

233
all docs

233
docs citations

233
times ranked

8809
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast and robust femur segmentation from computed tomography images for patient-specific hip fracture risk screening. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , 2023, 11, 253-265.	1.3	4
2	Finite element derived femoral strength is a better predictor of hip fracture risk than aBMD in the AGES Reykjavik study cohort. <i>Bone</i> , 2022, 154, 116219.	1.4	10
3	A combined experimental and numerical method to estimate the elastic modulus of single trabeculae. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 125, 104879.	1.5	6
4	Prophylactic augmentation implants in the proximal femur for hip fracture prevention: An in silico investigation of simulated sideways fall impacts. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 126, 104957.	1.5	4
5	Multiscale biomechanics of the biphasic articular cartilage in the natural hip joint during routine activities. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 215, 106606.	2.6	4
6	The Influence of Fall Direction and Hip Protector on Fracture Risk: FE Model Predictions Driven by Experimental Data. <i>Annals of Biomedical Engineering</i> , 2022, 50, 278-290.	1.3	4
7	Virtual mechanical tests outperform morphometric measures for assessment of mechanical stability of fracture healing in vivo. <i>Journal of Orthopaedic Research</i> , 2021, 39, 727-738.	1.2	16
8	Validation of 3D finite element models from simulated DXA images for biofidelic simulations of sideways fall impact to the hip. <i>Bone</i> , 2021, 142, 115678.	1.4	9
9	Additively manufactured mesh-type titanium structures for cranial implants: E-PBF vs. L-PBF. <i>Materials and Design</i> , 2021, 197, 109207.	3.3	7
10	Mechanical and morphological characterization of PMMA/bone composites in human femoral heads. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 115, 104247.	1.5	12
11	Electrospun biodegradable poly(ϵ -caprolactone) membranes for annulus fibrosus repair: Long-term material stability and mechanical competence. <i>JOR Spine</i> , 2021, 4, e1130.	1.5	4
12	<sc>TRPV4</sc> mediates cell damage induced by hyperphysiological compression and regulates <sc>COX2</sc>/<sc>PGE2</sc> in intervertebral discs. <i>JOR Spine</i> , 2021, 4, e1149.	1.5	8
13	A Biomimetic Macroporous Hybrid Scaffold with Sustained Drug Delivery for Enhanced Bone Regeneration. <i>Biomacromolecules</i> , 2021, 22, 2460-2471.	2.6	24
14	Subject-Specific Modeling of Femoral Torsion Influences the Prediction of Hip Loading During Gait in Asymptomatic Adults. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 679360.	2.0	11
15	Non-linear mechanical properties and dynamic response of silicon nitride bioceramic. <i>Ceramics International</i> , 2021, 47, 33525-33536.	2.3	12
16	A new 2D \rightarrow 3D registration gold standard dataset for the hip joint based on uncertainty modeling. <i>Medical Physics</i> , 2021, 48, 5991-6006.	1.6	4
17	Topology optimization using PETS: a Python wrapper and extended functionality. <i>Structural and Multidisciplinary Optimization</i> , 2021, 64, 4343-4353.	1.7	3
18	Tailoring the multiscale architecture of electrospun membranes to promote 3D cellular infiltration. <i>Materials Science and Engineering C</i> , 2021, 130, 112427.	3.8	1

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19	Silicon Nitride, a Bioceramic for Bone Tissue Engineering: A Reinforced Cryogel System With Antibiofilm and Osteogenic Effects. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 794586.	2.0	14
20	Current Preclinical Testing of New Hip Arthroplasty Technologies Does Not Reflect Real-World Loadings: Capturing Patient-Specific and Activity-Related Variation in Hip Contact Forces. <i>Journal of Arthroplasty</i> , 2020, 35, 877-885.	1.5	21
21	Medial unicompartmental knee arthroplasty in ACL-deficient knees is a viable treatment option: in vivo kinematic evaluation using a moving fluoroscope. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2020, 28, 1765-1773.	2.3	11
22	Magnetic fields modulate metabolism and gut microbiome in correlation with <i>PGC-1α</i> expression: Follow-up to an in vitro magnetic mitohormetic study. <i>FASEB Journal</i> , 2020, 34, 11143-11167.	0.2	20
23	Variable fixation promotes callus formation: an experimental study on transverse tibial osteotomies stabilized with locking plates. <i>BMC Musculoskeletal Disorders</i> , 2020, 21, 806.	0.8	6
24	Mechanical and biological characterization of a composite annulus fibrosus repair strategy in an endplate delamination model. <i>JOR Spine</i> , 2020, 3, e1107.	1.5	8
25	TRPV4 Inhibition and CRISPR-Cas9 Knockout Reduce Inflammation Induced by Hyperphysiological Stretching in Human Annulus Fibrosus Cells. <i>Cells</i> , 2020, 9, 1736.	1.8	20
26	Implicit and explicit finite element models predict the mechanical response of calcium phosphate-titanium cranial implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 112, 104085.	1.5	6
27	Cell-Laden Agarose-Collagen Composite Hydrogels for Mechanotransduction Studies. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 346.	2.0	41
28	Empirical relationships between bone density and ultimate strength: A literature review. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 110, 103866.	1.5	30
29	The effect of two types of resorbable augmentation materials “a cement and an adhesive” on the screw pullout resistance in human trabecular bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 110, 103897.	1.5	8
30	Videofluoroscopic Evaluation of the Influence of a Gradually Reducing Femoral Radius on Joint Kinematics During Daily Activities in Total Knee Arthroplasty. <i>Journal of Arthroplasty</i> , 2020, 35, 3010-3030.	1.5	6
31	Hypo-Osmotic Loading Induces Expression of IL-6 in Nucleus Pulposus Cells of the Intervertebral Disc Independent of TRPV4 and TRPM7. <i>Frontiers in Pharmacology</i> , 2020, 11, 952.	1.6	8
32	Morphological and biomechanical effects of annulus fibrosus injury and repair in an ovine cervical model. <i>JOR Spine</i> , 2020, 3, e1074.	1.5	22
33	Effects of the soft tissue artefact on the hip joint kinematics during unrestricted activities of daily living. <i>Journal of Biomechanics</i> , 2020, 104, 109717.	0.9	15
34	Mechanical behaviour of composite calcium phosphate-titanium cranial implants: Effects of loading rate and design. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 104, 103701.	1.5	13
35	Intramedullary screw fixation for metacarpal shaft fractures: a biomechanical human cadaver study. <i>Journal of Hand Surgery: European Volume</i> , 2020, 45, 595-600.	0.5	14
36	Contact force path in total hip arthroplasty: effect of cup medialisation in a whole-body simulation. <i>HIP International</i> , 2020, 31, 112070002091732.	0.9	5

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37	Revealing non-crystalline polymer superstructures within electrospun fibers through solvent-induced phase rearrangements. <i>Nanoscale</i> , 2019, 11, 16788-16800.	2.8	17
38	Electrospray-Based Microencapsulation of Epigallocatechin 3-Gallate for Local Delivery into the Intervertebral Disc. <i>Pharmaceutics</i> , 2019, 11, 435.	2.0	13
39	In Vitro Endothelialization of Surface-Integrated Nanofiber Networks for Stretchable Blood Interfaces. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 5740-5751.	4.0	11
40	Explicit Finite Element Models Accurately Predict Subject-Specific and Velocity-Dependent Kinetics of Sideways Fall Impact. <i>Journal of Bone and Mineral Research</i> , 2019, 34, 1837-1850.	3.1	25
41	Subject-specific ex vivo simulations for hip fracture risk assessment in sideways falls. <i>Bone</i> , 2019, 125, 36-45.	1.4	13
42	Knee implant kinematics are task-dependent. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20180678.	1.5	26
43	Mechanics of Three-Dimensional Printed Lattices for Biomedical Devices. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2019, 141, .	1.7	33
44	Treatment of Naturally Degenerated Canine Lumbosacral Intervertebral Discs with Autologous Mesenchymal Stromal Cells and Collagen Microcarriers: A Prospective Clinical Study. <i>Cell Transplantation</i> , 2019, 28, 201-211.	1.2	11
45	Explosive and maximal strength before and 6 months after total hip arthroplasty. <i>Journal of Orthopaedic Research</i> , 2018, 36, 425-431.	1.2	15
46	Patient-specific in silico models can quantify primary implant stability in elderly human bone. <i>Journal of Orthopaedic Research</i> , 2018, 36, 954-962.	1.2	10
47	Material mapping strategy to improve the predicted response of the proximal femur to a sideways fall impact. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 78, 196-205.	1.5	33
48	Stiffness and strength of cranioplastic implant systems in comparison to cranial bone. <i>Journal of Cranio-Maxillo-Facial Surgery</i> , 2018, 46, 418-423.	0.7	21
49	Thoracolumbar spine loading associated with kinematics of the young and the elderly during activities of daily living. <i>Journal of Biomechanics</i> , 2018, 70, 175-184.	0.9	27
50	Integrative Design, Build, Test Approach for Biomedical Devices With Lattice Structures. , 2018, , .		4
51	Correlating diameter, mechanical and structural properties of poly(L-lactide) fibres from needleless electrospinning. <i>Acta Biomaterialia</i> , 2018, 81, 169-183.	4.1	43
52	Refining muscle geometry and wrapping in the TLEM 2 model for improved hip contact force prediction. <i>PLoS ONE</i> , 2018, 13, e0204109.	1.1	51
53	The effect of muscle ageing and sarcopenia on spinal segmental loads. <i>European Spine Journal</i> , 2018, 27, 2650-2659.	1.0	35
54	Strain rate dependency of bovine trabecular bone under impact loading at sideways fall velocity. <i>Journal of Biomechanics</i> , 2018, 75, 46-52.	0.9	10

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55	Effects of Level, Loading Rate, Injury and Repair on Biomechanical Response of Ovine Cervical Intervertebral Discs. <i>Annals of Biomedical Engineering</i> , 2018, 46, 1911-1920.	1.3	13
56	TRPC6 in simulated microgravity of intervertebral disc cells. <i>European Spine Journal</i> , 2018, 27, 2621-2630.	1.0	12
57	The Influence of Backpack Weight and Hip Belt Tension on Movement and Loading in the Pelvis and Lower Limbs during Walking. <i>Applied Bionics and Biomechanics</i> , 2018, 2018, 1-7.	0.5	5
58	The influence of spinal fusion length on proximal junction biomechanics: a parametric computational study. <i>European Spine Journal</i> , 2018, 27, 2262-2271.	1.0	17
59	A novel sideways fall simulator to study hip fractures ex vivo. <i>PLoS ONE</i> , 2018, 13, e0201096.	1.1	21
60	Young's modulus of trabecular bone at the tissue level: A review. <i>Acta Biomaterialia</i> , 2018, 78, 1-12.	4.1	129
61	On the internal reaction forces, energy absorption, and fracture in the hip during simulated sideways fall impact. <i>PLoS ONE</i> , 2018, 13, e0200952.	1.1	19
62	Simulated tissue growth for 3D printed scaffolds. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018, 17, 1481-1495.	1.4	38
63	Inflammation in cervical and lumbar degenerated intervertebral discs: analysis of proinflammatory cytokine and TRP channel expression. <i>European Spine Journal</i> , 2018, 27, 564-577.	1.0	46
64	A novel in silico method to quantify primary stability of screws in trabecular bone. <i>Journal of Orthopaedic Research</i> , 2017, 35, 2415-2424.	1.2	24
65	Spinal kinematics during gait in healthy individuals across different age groups. <i>Human Movement Science</i> , 2017, 54, 73-81.	0.6	39
66	Computational modeling of long-term effects of prophylactic vertebroplasty on bone adaptation. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2017, 231, 423-431.	1.0	8
67	Design of Hierarchical Three-Dimensional Printed Scaffolds Considering Mechanical and Biological Factors for Bone Tissue Engineering. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2017, 139, .	1.7	38
68	Multi-segmental thoracic spine kinematics measured dynamically in the young and elderly during flexion. <i>Human Movement Science</i> , 2017, 54, 230-239.	0.6	29
69	Electrospraying of microfluidic encapsulated cells for the fabrication of cell-laden electrospun hybrid tissue constructs. <i>Acta Biomaterialia</i> , 2017, 64, 137-147.	4.1	33
70	Determining 3D Kinematics of the Hip Using Video Fluoroscopy: Guidelines for Balancing Radiation Dose and Registration Accuracy. <i>Journal of Arthroplasty</i> , 2017, 32, 3213-3218.	1.5	7
71	Hyaluronan supplementation as a mechanical regulator of cartilage tissue development under joint-kinematic-mimicking loading. <i>Journal of the Royal Society Interface</i> , 2017, 14, 20170255.	1.5	14
72	Design and Fabrication of 3D Printed Tissue Scaffolds Informed by Mechanics and Fluids Simulations. , 2017, , .		1

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73	A 1-D model of the nonlinear dynamics of the human lumbar intervertebral disc. <i>Journal of Sound and Vibration</i> , 2017, 387, 194-206.	2.1	10
74	The influence of cartilage surface topography on fluid flow in the intra-articular gap. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 250-259.	0.9	13
75	Comparison of specimen-specific vertebral body finite element models with experimental digital image correlation measurements. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 65, 801-807.	1.5	21
76	Loading of the lumbar spine during backpack carriage. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 558-565.	0.9	3
77	Computationally designed lattices with tuned properties for tissue engineering using 3D printing. <i>PLoS ONE</i> , 2017, 12, e0182902.	1.1	116
78	Validation of an instrumented dummy to assess mechanical aspects of discomfort during load carriage. <i>PLoS ONE</i> , 2017, 12, e0180069.	1.1	6
79	A moving fluoroscope to capture tibiofemoral kinematics during complete cycles of free level and downhill walking as well as stair descent. <i>PLoS ONE</i> , 2017, 12, e0185952.	1.1	39
80	An Inflammatory Nucleus Pulposus Tissue Culture Model to Test Molecular Regenerative Therapies: Validation with Epigallocatechin 3-Gallate. <i>International Journal of Molecular Sciences</i> , 2016, 17, 1640.	1.8	23
81	The Effectiveness of Percutaneous Vertebroplasty Is Determined by the Patient-Specific Bone Condition and the Treatment Strategy. <i>PLoS ONE</i> , 2016, 11, e0151680.	1.1	16
82	Direct electrospinning of 3D auricle-shaped scaffolds for tissue engineering applications. <i>Biofabrication</i> , 2016, 8, 025007.	3.7	24
83	Design and 3D Printing of Hierarchical Tissue Engineering Scaffolds Based on Mechanics and Biology Perspectives. , 2016, , .		5
84	Stability of (α)-epigallocatechin gallate and its activity in liquid formulations and delivery systems. <i>Journal of Nutritional Biochemistry</i> , 2016, 37, 1-12.	1.9	140
85	In silico investigation of vertebroplasty as a stand-alone treatment for vertebral burst fractures. <i>Clinical Biomechanics</i> , 2016, 34, 53-61.	0.5	3
86	The influence of the modulus-density relationship and the material mapping method on the simulated mechanical response of the proximal femur in side-ways fall loading configuration. <i>Medical Engineering and Physics</i> , 2016, 38, 679-689.	0.8	40
87	Ceramic cement as a potential stand-alone treatment for bone fractures: An in vitro study of ceramic-bone composites. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 61, 519-529.	1.5	3
88	A PRELIMINARY IN VITRO BIOMECHANICAL EVALUATION OF PROPHYLACTIC CEMENT AUGMENTATION OF THE THORACOLUMBAR VERTEBRAE. <i>Journal of Mechanics in Medicine and Biology</i> , 2016, 16, 1650074.	0.3	5
89	A rigid thorax assumption affects model loading predictions at the upper but not lower lumbar levels. <i>Journal of Biomechanics</i> , 2016, 49, 3074-3078.	0.9	40
90	Morphology based anisotropic finite element models of the proximal femur validated with experimental data. <i>Medical Engineering and Physics</i> , 2016, 38, 1339-1347.	0.8	29

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91	Interactive graph-cut segmentation for fast creation of finite element models from clinical ct data for hip fracture prediction. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 1693-1703.	0.9	52
92	Patch-augmented rotator cuff repair: influence of the patch fixation technique on primary biomechanical stability. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2016, 136, 609-616.	1.3	21
93	An <i>in vitro</i> expansion score for tissue-engineering applications with human bone marrow-derived mesenchymal stem cells. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016, 10, 149-161.	1.3	51
94	Geometrical aspects of patient-specific modelling of the intervertebral disc: collagen fibre orientation and residual stress distribution. <i>Biomechanics and Modeling in Mechanobiology</i> , 2016, 15, 543-560.	1.4	19
95	Screw insertion in trabecular bone causes peri-implant bone damage. <i>Medical Engineering and Physics</i> , 2016, 38, 417-422.	0.8	35
96	Thoracolumbar spine model with articulated ribcage for the prediction of dynamic spinal loading. <i>Journal of Biomechanics</i> , 2016, 49, 959-966.	0.9	71
97	Oriented nanofibrous membranes for tissue engineering applications: Electrospinning with secondary field control. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 58, 188-198.	1.5	17
98	Symphyseal internal rod fixation versus standard plate fixation for open book pelvic ring injuries: a biomechanical study. <i>European Journal of Trauma and Emergency Surgery</i> , 2016, 42, 197-202.	0.8	16
99	FISICO: Fast Image Segmentation COrrrection. <i>PLoS ONE</i> , 2016, 11, e0156035.	1.1	7
100	Chondrogenic Priming at Reduced Cell Density Enhances Cartilage Adhesion of Equine Allogeneic MSCs - a Loading Sensitive Phenomenon in an Organ Culture Study with 180 Explants. <i>Cellular Physiology and Biochemistry</i> , 2015, 37, 651-665.	1.1	17
101	Computational modelling of bone augmentation in the spine. <i>Journal of Orthopaedic Translation</i> , 2015, 3, 185-196.	1.9	8
102	Evaluation of a Novel Screw Position in a Type III Distal Phalanx Fracture Model: An <i>Ex Vivo</i> Study. <i>Veterinary Surgery</i> , 2015, 44, 829-837.	0.5	5
103	Leukocytes Enhance Inflammatory and Catabolic Degenerative Changes in the Intervertebral Disc After Endplate Fracture <i>In Vitro</i> Without Infiltrating the Disc. <i>Spine</i> , 2015, 40, 1799-1806.	1.0	17
104	Correction tool for Active Shape Model based lumbar muscle segmentation. , 2015, 2015, 3033-6.		5
105	Comparison of explicit finite element and mechanical simulation of the proximal femur during dynamic drop-tower testing. <i>Journal of Biomechanics</i> , 2015, 48, 224-232.	0.9	34
106	Computational analysis of primary implant stability in trabecular bone. <i>Journal of Biomechanics</i> , 2015, 48, 807-815.	0.9	39
107	Nonlinear dynamics of the human lumbar intervertebral disc. <i>Journal of Biomechanics</i> , 2015, 48, 479-488.	0.9	17
108	Protrusio acetabuli: Joint loading with severe pincer impingement and its theoretical implications for surgical therapy. <i>Journal of Orthopaedic Research</i> , 2015, 33, 106-113.	1.2	34

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109	Dynamization at the Near Cortex in Locking Plate Osteosynthesis by Means of Dynamic Locking Screws. <i>Journal of Bone and Joint Surgery - Series A</i> , 2015, 97, 208-215.	1.4	26
110	Novel methodology for assessing biomaterialâ€biofluid interaction in cancellous bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 46, 158-167.	1.5	4
111	Duration-dependent influence of dynamic torsion on the intervertebral disc: an intact disc organ culture study. <i>European Spine Journal</i> , 2015, 24, 2402-2410.	1.0	18
112	The effect of water on the mechanical properties of soluble and insoluble ceramic cements. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 51, 50-60.	1.5	9
113	How reliable are pressure measurements with Tekscan sensors on the body surface of human subjects wearing load carriage systems?. <i>International Journal of Industrial Ergonomics</i> , 2015, 49, 60-67.	1.5	29
114	Comparison of two dental implant surface modifications on implants with same macrodesign: an experimental study in the pelvic sheep model. <i>Clinical Oral Implants Research</i> , 2015, 26, 898-908.	1.9	15
115	Persistent degenerative changes in the intervertebral disc after burst fracture in an in vitro model mimicking physiological post-traumatic conditions. <i>European Spine Journal</i> , 2015, 24, 1901-1908.	1.0	33
116	Mechanical Predictors of Discomfort during Load Carriage. <i>PLoS ONE</i> , 2015, 10, e0142004.	1.1	15
117	Organ Culture Bioreactors â€ Platforms to Study Human Intervertebral Disc Degeneration and Regenerative Therapy. <i>Current Stem Cell Research and Therapy</i> , 2015, 10, 339-352.	0.6	78
118	Regenerative Therapies for Equine Degenerative Joint Disease: A Preliminary Study. <i>PLoS ONE</i> , 2014, 9, e85917.	1.1	94
119	A Novel Multi-Phosphonate Surface Treatment of Titanium Dental Implants: A Study in Sheep. <i>Journal of Functional Biomaterials</i> , 2014, 5, 135-157.	1.8	14
120	Mechanical testing of a device for subcutaneous internal anterior pelvic ring fixation versus external pelvic ring fixation. <i>BMC Musculoskeletal Disorders</i> , 2014, 15, 111.	0.8	27
121	Nonlinear numerical analysis of the structural response of the intervertebral disc to impact loading. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 1002-1011.	0.9	9
122	Compressive mechanical properties and cytocompatibility of bone-compliant, linoleic acid-modified bone cement in a bovine model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 32, 245-256.	1.5	29
123	Severity and pattern of post-traumatic intervertebral disc degeneration depend on the type of injury. <i>Spine Journal</i> , 2014, 14, 1256-1264.	0.6	48
124	Expression and regulation of toll-like receptors (TLRs) in human intervertebral disc cells. <i>European Spine Journal</i> , 2014, 23, 1878-1891.	1.0	73
125	Modelling the Influence of Heterogeneous Annulus Material Property Distribution on Intervertebral Disk Mechanics. <i>Annals of Biomedical Engineering</i> , 2014, 42, 1760-1772.	1.3	20
126	Development of a balanced experimentalâ€computational approach to understanding the mechanics of proximal femur fractures. <i>Medical Engineering and Physics</i> , 2014, 36, 793-799.	0.8	45

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127	Biodegradable Electrospun Scaffolds for Annulus Fibrosus Tissue Engineering: Effect of Scaffold Structure and Composition on Annulus Fibrosus Cells <i>In Vitro</i> . <i>Tissue Engineering - Part A</i> , 2014, 20, 140123085256009.	1.6	30
128	The compressive modulus and strength of saturated calcium sulphate dihydrate cements: Implications for testing standards. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 34, 187-198.	1.5	21
129	Stress distribution and consolidation in cartilage constituents is influenced by cyclic loading and osteoarthritic degeneration. <i>Journal of Biomechanics</i> , 2014, 47, 2348-2353.	0.9	20
130	Physiological testosterone levels enhance chondrogenic extracellular matrix synthesis by male intervertebral disc cells <i>in vitro</i> , but not by mesenchymal stem cells. <i>Spine Journal</i> , 2014, 14, 455-468.	0.6	21
131	The role of endplate poromechanical properties on the nutrient availability in the intervertebral disc. <i>Osteoarthritis and Cartilage</i> , 2014, 22, 1053-1060.	0.6	63
132	Numerical description and experimental validation of a rheology model for non-Newtonian fluid flow in cancellous bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 27, 43-53.	1.5	14
133	On the interrelationship of permeability and structural parameters of vertebral trabecular bone: a parametric computational study. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2013, 16, 908-922.	0.9	23
134	Influence of cement stiffness and bone morphology on the compressive properties of bone-cement composites in simulated vertebroplasty. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2013, 101B, 364-374.	1.6	7
135	The dynamisation of locking plate osteosynthesis by means of dynamic locking screws (DLS) – An experimental study in sheep. <i>Injury</i> , 2013, 44, 1346-1357.	0.7	31
136	Histological and biomechanical analysis of porous additive manufactured implants made by direct metal laser sintering: A pilot study in sheep. , 2013, 101, 1154-1163.		64
137	Quantifying the centre of rotation pattern in a multi-body model of the lumbar spine. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2013, 16, 1362-1373.	0.9	11
138	Nonlinear Dynamic Behaviour of the Intervertebral Disc. , 2013, , .		0
139	A comparison and verification of computational methods to determine the permeability of vertebral trabecular bone. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2013, 227, 617-628.	1.0	14
140	Biomechanical evaluation of the stabilizing function of the atlantoaxial ligaments under shear loading: A canine cadaveric study. <i>Veterinary Surgery</i> , 2013, 42, 918-923.	0.5	21
141	Electrospinning Auricular Shaped Scaffolds for Tissue Engineering. <i>Biomedizinische Technik</i> , 2013, 58 Suppl 1, .	0.9	1
142	In vitro biomechanical testing of a micro external skeletal fixator. <i>Veterinary and Comparative Orthopaedics and Traumatology</i> , 2013, 26, 385-391.	0.2	3
143	Region Specific Response of Intervertebral Disc Cells to Complex Dynamic Loading: An Organ Culture Study Using a Dynamic Torsion-Compression Bioreactor. <i>PLoS ONE</i> , 2013, 8, e72489.	1.1	69
144	Challenges and strategies in the repair of ruptured annulus fibrosus. , 2013, 25, 1-21.		181

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145	Biomechanical evaluation of a titanium implant surface conditioned by a hydroxide ion solution. <i>British Journal of Oral and Maxillofacial Surgery</i> , 2012, 50, 74-79.	0.4	31
146	Influence of different commercial scaffolds on the in vitro differentiation of human mesenchymal stem cells to nucleus pulposus-like cells. <i>European Spine Journal</i> , 2012, 21, 826-838.	1.0	56
147	Stochastic amplitude-modulated stretching of rabbit flexor digitorum profundus tendons reduces stiffness compared to cyclic loading but does not affect tenocyte metabolism. <i>BMC Musculoskeletal Disorders</i> , 2012, 13, 222.	0.8	4
148	Fracture of the vertebral endplates, but not equienergetic impact load, promotes disc degeneration in vitro. <i>Journal of Orthopaedic Research</i> , 2012, 30, 809-816.	1.2	62
149	BMP-2 and TGF- β 23 do not prevent spontaneous degeneration in rabbit disc explants but induce ossification of the annulus fibrosus. <i>European Spine Journal</i> , 2012, 21, 1724-1733.	1.0	34
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