

Anita Ignatius

List of Publications by Year in descending order

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288
papers

11,405
citations

34105

52
h-index

49909

87
g-index

308
all docs

308
docs citations

308
times ranked

12687
citing authors

#	ARTICLE	IF	CITATIONS
1	Fracture healing under healthy and inflammatory conditions. <i>Nature Reviews Rheumatology</i> , 2012, 8, 133-143.	8.0	904
2	Platelet lysate from whole blood-derived pooled platelet concentrates and apheresis-derived platelet concentrates for the isolation and expansion of human bone marrow mesenchymal stromal cells: production process, content and identification of active components. <i>Cytotherapy</i> , 2012, 14, 540-554.	0.7	246
3	Signal transduction pathways involved in mechanotransduction in bone cells. <i>Biochemical and Biophysical Research Communications</i> , 2006, 349, 1-5.	2.1	217
4	Decellularized Cartilage Matrix as a Novel Biomatrix for Cartilage Tissue-Engineering Applications. <i>Tissue Engineering - Part A</i> , 2012, 18, 2195-2209.	3.1	205
5	TSG-6 Released from Intradermally Injected Mesenchymal Stem Cells Accelerates Wound Healing and Reduces Tissue Fibrosis in Murine Full-Thickness Skin Wounds. <i>Journal of Investigative Dermatology</i> , 2014, 134, 526-537.	0.7	195
6	New Insights of an Old Defense System: Structure, Function, and Clinical Relevance of the Complement System. <i>Molecular Medicine</i> , 2011, 17, 317-329.	4.4	183
7	Bone formation in a long bone defect model using a platelet-rich plasma-loaded collagen scaffold. <i>Biomaterials</i> , 2006, 27, 1817-1823.	11.4	172
8	GMP-Compliant Isolation and Large-Scale Expansion of Bone Marrow-Derived MSC. <i>PLoS ONE</i> , 2012, 7, e43255.	2.5	156
9	Proliferation of human-derived osteoblast-like cells depends on the cycle number and frequency of uniaxial strain. <i>Journal of Biomechanics</i> , 2002, 35, 873-880.	2.1	152
10	Nanoparticles and their potential for application in bone. <i>International Journal of Nanomedicine</i> , 2012, 7, 4545.	6.7	146
11	Complement C3a and C5a modulate osteoclast formation and inflammatory response of osteoblasts in synergism with IL-1 β . <i>Journal of Cellular Biochemistry</i> , 2011, 112, 2594-2605.	2.6	142
12	Small animal bone healing models: Standards, tips, and pitfalls results of a consensus meeting. <i>Bone</i> , 2011, 49, 591-599.	2.9	141
13	Finite element modeling of soft tissues: Material models, tissue interaction and challenges. <i>Clinical Biomechanics</i> , 2014, 29, 363-372.	1.2	126
14	Non-union bone fractures. <i>Nature Reviews Disease Primers</i> , 2021, 7, 57.	30.5	122
15	In vivo degradation of low temperature calcium and magnesium phosphate ceramics in a heterotopic model. <i>Acta Biomaterialia</i> , 2011, 7, 3469-3475.	8.3	119
16	The crucial role of neutrophil granulocytes in bone fracture healing. , 2016, 32, 152-162.		117
17	Early, Full Weightbearing With Flexible Fixation Delays Fracture Healing. <i>Clinical Orthopaedics and Related Research</i> , 1996, 328, 194-202.	1.5	116
18	GMP-Compliant Isolation and Expansion of Bone Marrow-Derived MSCs in the Closed, Automated Device Quantum Cell Expansion System. <i>Cell Transplantation</i> , 2013, 22, 1981-2000.	2.5	115

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19	Primary stability and strain distribution of cementless hip stems as a function of implant design. <i>Clinical Biomechanics</i> , 2012, 27, 158-164.	1.2	113
20	Effect of Subchondral Drilling on the Microarchitecture of Subchondral Bone. <i>American Journal of Sports Medicine</i> , 2012, 40, 828-836.	4.2	109
21	Regulation of gene expression in intervertebral disc cells by low and high hydrostatic pressure. <i>European Spine Journal</i> , 2006, 15, 372-378.	2.2	100
22	Control of in vivo mineral bone cement degradation. <i>Acta Biomaterialia</i> , 2014, 10, 3279-3287.	8.3	100
23	Fracture healing in mice under controlled rigid and flexible conditions using an adjustable external fixator. <i>Journal of Orthopaedic Research</i> , 2010, 28, 1456-1462.	2.3	98
24	Accelerated aging phenotype in mice with conditional deficiency for mitochondrial superoxide dismutase in the connective tissue. <i>Aging Cell</i> , 2011, 10, 239-254.	6.7	96
25	Fabrication, mechanical and in vivo performance of polycaprolactone/tricalcium phosphate composite scaffolds. <i>Acta Biomaterialia</i> , 2012, 8, 3446-3456.	8.3	93
26	Bone regeneration capacity of magnesium phosphate cements in a large animal model. <i>Acta Biomaterialia</i> , 2018, 69, 352-361.	8.3	91
27	Neutrophils in Tissue Trauma of the Skin, Bone, and Lung: Two Sides of the Same Coin. <i>Journal of Immunology Research</i> , 2018, 2018, 1-12.	2.2	88
28	Early dynamization by reduced fixation stiffness does not improve fracture healing in a rat femoral osteotomy model. <i>Journal of Orthopaedic Research</i> , 2009, 27, 22-27.	2.3	85
29	The role of complement in trauma and fracture healing. <i>Seminars in Immunology</i> , 2013, 25, 73-78.	5.6	85
30	Effect of partial meniscectomy at the medial posterior horn on tibiofemoral contact mechanics and meniscal hoop strains in human knees. <i>Journal of Orthopaedic Research</i> , 2012, 30, 934-942.	2.3	82
31	Mechanical stimulation of human tendon stem/progenitor cells results in upregulation of matrix proteins, integrins and MMPs, and activation of p38 and ERK1/2 kinases. <i>BMC Molecular Biology</i> , 2015, 16, 6.	3.0	82
32	Distinct Effects of IL-6 Classic and Trans -Signaling in Bone Fracture Healing. <i>American Journal of Pathology</i> , 2018, 188, 474-490.	3.8	81
33	Calcium and vitamin D in bone fracture healing and post-traumatic bone turnover. , 2018, 35, 365-385.		80
34	Biomechanics of a short stem: In vitro primary stability and stress shielding of a conservative cementless hip stem. <i>Journal of Orthopaedic Research</i> , 2013, 31, 1180-1186.	2.3	79
35	Tenomodulin is Required for Tendon Endurance Running and Collagen I Fibril Adaptation to Mechanical Load. <i>EBioMedicine</i> , 2017, 20, 240-254.	6.1	78
36	Interactions of environmental conditions and mechanical loads have influence on matrix turnover by nucleus pulposus cells. <i>Journal of Orthopaedic Research</i> , 2012, 30, 112-121.	2.3	76

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37	A new metaphyseal bone defect model in osteoporotic rats to study biomaterials for the enhancement of bone healing in osteoporotic fractures. <i>Acta Biomaterialia</i> , 2013, 9, 7035-7042.	8.3	76
38	Estrogen receptor and Wnt signaling interact to regulate early gene expression in response to mechanical strain in osteoblastic cells. <i>Biochemical and Biophysical Research Communications</i> , 2010, 394, 755-759.	2.1	74
39	Molecular mechanisms of glucocorticoids on skeleton and bone regeneration after fracture. <i>Journal of Molecular Endocrinology</i> , 2018, 61, R75-R90.	2.5	74
40	A three-dimensional collagen matrix as a suitable culture system for the comparison of cyclic strain and hydrostatic pressure effects on intervertebral disc cells. <i>Journal of Neurosurgery: Spine</i> , 2005, 2, 457-465.	1.7	73
41	IL-1 β Inhibits Human Osteoblast Migration. <i>Molecular Medicine</i> , 2013, 19, 36-42.	4.4	73
42	Processed xenogenic cartilage as innovative biomatrix for cartilage tissue engineering: effects on chondrocyte differentiation and function. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2015, 9, E239-E251.	2.7	72
43	Complement involvement in bone homeostasis and bone disorders. <i>Seminars in Immunology</i> , 2018, 37, 53-65.	5.6	69
44	Resorbable polymer fibers for ligament augmentation. <i>Journal of Biomedical Materials Research Part B</i> , 2001, 58, 666-672.	3.1	67
45	Stress-relaxation response of human menisci under confined compression conditions. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 26, 68-80.	3.1	66
46	Metaphyseal fracture healing follows similar biomechanical rules as diaphyseal healing. <i>Journal of Orthopaedic Research</i> , 2011, 29, 425-432.	2.3	65
47	Mast Cells Are Critical Regulators of Bone Fracture-Induced Inflammation and Osteoclast Formation and Activity. <i>Journal of Bone and Mineral Research</i> , 2017, 32, 2431-2444.	2.8	64
48	Experimental blunt chest trauma impairs fracture healing in rats. <i>Journal of Orthopaedic Research</i> , 2011, 29, 734-739.	2.3	63
49	Preliminary Investigations on Intradiscal Pressures during Daily Activities: An In Vivo Study Using the Merino Sheep. <i>PLoS ONE</i> , 2013, 8, e69610.	2.5	63
50	Biological and mechanical performance and degradation characteristics of calcium phosphate cements in large animals and humans. <i>Acta Biomaterialia</i> , 2020, 117, 1-20.	8.3	62
51	The Anaphylatoxin Receptor C5aR Is Present During Fracture Healing in Rats and Mediates Osteoblast Migration In Vitro. <i>Journal of Trauma</i> , 2011, 71, 952-960.	2.3	60
52	Late Dynamization by Reduced Fixation Stiffness Enhances Fracture Healing in a Rat Femoral Osteotomy Model. <i>Journal of Orthopaedic Trauma</i> , 2011, 25, 169-174.	1.4	59
53	Complement C5a Functions as a Master Switch for the pH Balance in Neutrophils Exerting Fundamental Immunometabolic Effects. <i>Journal of Immunology</i> , 2017, 198, 4846-4854.	0.8	58
54	The impact of low-magnitude high-frequency vibration on fracture healing is profoundly influenced by the oestrogen status in mice. <i>DMM Disease Models and Mechanisms</i> , 2015, 8, 93-104.	2.4	57

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55	Spatiotemporally Controlled Release of Rhoâ€inhibiting C3 Toxin from a Proteinâ€DNA Hybrid Hydrogel for Targeted Inhibition of Osteoclast Formation and Activity. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700392.	7.6	57
56	H2S during circulatory shock: Some unresolved questions. <i>Nitric Oxide - Biology and Chemistry</i> , 2014, 41, 48-61.	2.7	56
57	Piezo1 Inactivation in Chondrocytes Impairs Trabecular Bone Formation. <i>Journal of Bone and Mineral Research</i> , 2020, 36, 369-384.	2.8	55
58	Effects of Estrogen on Fracture Healing in Mice. <i>Journal of Trauma</i> , 2010, 69, 1259-1265.	2.3	53
59	Systemic inflammation induced by a thoracic trauma alters the cellular composition of the early fracture callus. <i>Journal of Trauma and Acute Care Surgery</i> , 2013, 74, 531-537.	2.1	53
60	In vivo performance of a novel silk fibroin scaffold for partial meniscal replacement in a sheep model. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2015, 23, 2218-2229.	4.2	53
61	The Wnt Serpentine Receptor Frizzled-9 Regulates New Bone Formation in Fracture Healing. <i>PLoS ONE</i> , 2013, 8, e84232.	2.5	52
62	Delayed bone healing following high tibial osteotomy related to increased implant stiffness in locked plating. <i>Injury</i> , 2014, 45, 1648-1652.	1.7	52
63	Glucocorticoid Treatment of Ovariectomized Sheep Affects Mineral Density, Structure, and Mechanical Properties of Cancellous Bone. <i>Journal of Bone and Mineral Research</i> , 2003, 18, 2010-2015.	2.8	51
64	Temporary distraction and compression of a diaphyseal osteotomy accelerates bone healing. <i>Journal of Orthopaedic Research</i> , 2008, 26, 772-777.	2.3	51
65	Effect of functionalised fluorescence-labelled nanoparticles on mesenchymal stem cell differentiation. <i>Biomaterials</i> , 2010, 31, 2064-2071.	11.4	51
66	Hydrogels for nucleus replacementâ€Facing the biomechanical challenge. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 14, 67-77.	3.1	51
67	Disadvantages of interfragmentary shear on fracture healingâ€mechanical insights through numerical simulation. <i>Journal of Orthopaedic Research</i> , 2014, 32, 865-872.	2.3	51
68	Bone tissue engineering in osteoporosis. <i>Maturitas</i> , 2013, 75, 118-124.	2.4	50
69	Chronic psychosocial stress compromises the immune response and endochondral ossification during bone fracture healing via I ² -AR signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 8615-8622.	7.1	50
70	The Role of Mast Cells in Bone Metabolism and Bone Disorders. <i>Frontiers in Immunology</i> , 2020, 11, 163.	4.8	50
71	Subchondral bone influences chondrogenic differentiation and collagen production of human bone marrow-derived mesenchymal stem cells and articular chondrocytes. <i>Arthritis Research and Therapy</i> , 2014, 16, 453.	3.5	49
72	Complement C3 and C5 Deficiency Affects Fracture Healing. <i>PLoS ONE</i> , 2013, 8, e81341.	2.5	48

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73	Mouse Models in Bone Fracture Healing Research. <i>Current Molecular Biology Reports</i> , 2016, 2, 101-111.	1.6	48
74	Numerical Simulation of Callus Healing for Optimization of Fracture Fixation Stiffness. <i>PLoS ONE</i> , 2014, 9, e101370.	2.5	47
75	Distinct frequency dependent effects of whole body vibration on non-fractured bone and fracture healing in mice. <i>Journal of Orthopaedic Research</i> , 2014, 32, 1006-1013.	2.3	47
76	Neuroinflammation after Traumatic Brain Injury Is Enhanced in Activating Transcription Factor 3 Mutant Mice. <i>Journal of Neurotrauma</i> , 2018, 35, 2317-2329.	3.4	47
77	Comparative animal study of three ligament prostheses for the replacement of the anterior cruciate and medial collateral ligament. <i>Biomaterials</i> , 1996, 17, 977-982.	11.4	46
78	The protein tyrosine phosphatase Rptp1 is expressed in differentiated osteoblasts and affects bone formation in mice. <i>Bone</i> , 2008, 42, 524-534.	2.9	45
79	Does complement play a role in bone development and regeneration?. <i>Immunobiology</i> , 2013, 218, 1-9.	1.9	45
80	Local detection of mechanically induced ATP release from bone cells with ATP microbiosensors. <i>Biosensors and Bioelectronics</i> , 2013, 44, 27-33.	10.1	45
81	Modulation of fixation stiffness from flexible to stiff in a rat model of bone healing. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2017, 88, 217-222.	3.3	45
82	Osseointegration of alumina with a bioactive coating under load-bearing and unloaded conditions. <i>Biomaterials</i> , 2005, 26, 2325-2332.	11.4	42
83	Prediction of fracture healing under axial loading, shear loading and bending is possible using distortional and dilatational strains as determining mechanical stimuli. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20130389.	3.4	42
84	Differences of bone healing in metaphyseal defect fractures between osteoporotic and physiological bone in rats. <i>Injury</i> , 2014, 45, 487-493.	1.7	42
85	C5a antagonist significantly reduces the deleterious effect of a blunt chest trauma on fracture healing. <i>Journal of Orthopaedic Research</i> , 2012, 30, 581-586.	2.3	41
86	Pharmacological inhibition of IL-6 trans-signaling improves compromised fracture healing after severe trauma. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2018, 391, 523-536.	3.0	41
87	Newly Defined ATP-Binding Cassette Subfamily B Member 5 Positive Dermal Mesenchymal Stem Cells Promote Healing of Chronic Iron-Overload Wounds via Secretion of Interleukin-1 Receptor Antagonist. <i>Stem Cells</i> , 2019, 37, 1057-1074.	3.2	41
88	Medial meniscal displacement and strain in three dimensions under compressive loads: MR assessment. <i>Journal of Magnetic Resonance Imaging</i> , 2014, 40, 1181-1188.	3.4	40
89	Calcium and vitamin-D deficiency marginally impairs fracture healing but aggravates posttraumatic bone loss in osteoporotic mice. <i>Scientific Reports</i> , 2017, 7, 7223.	3.3	40
90	Mitogens are increased in the systemic circulation during bone callus healing. <i>Journal of Orthopaedic Research</i> , 2003, 21, 320-325.	2.3	39

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91	In vivo biofunctional evaluation of hydrogels for disc regeneration. <i>European Spine Journal</i> , 2014, 23, 19-26.	2.2	39
92	In vivo performance of novel soybean/gelatin-based bioactive and injectable hydroxyapatite foams. <i>Acta Biomaterialia</i> , 2015, 12, 242-249.	8.3	39
93	Strontium(II) and mechanical loading additively augment bone formation in calcium phosphate scaffolds. <i>Journal of Orthopaedic Research</i> , 2018, 36, 106-117.	2.3	39
94	The inflammatory phase of fracture healing is influenced by oestrogen status in mice. <i>European Journal of Medical Research</i> , 2017, 22, 23.	2.2	39
95	Inhibition of cortical and cancellous bone formation in glucocorticoid-treated OVX sheep. <i>Bone</i> , 2005, 37, 491-496.	2.9	38
96	A novel model to study metaphyseal bone healing under defined biomechanical conditions. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2009, 129, 923-928.	2.4	38
97	Role of the Complement System in the Response to Orthopedic Biomaterials. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3367.	4.1	38
98	Mechanical regulation of osteoclastic genes in human osteoblasts. <i>Biochemical and Biophysical Research Communications</i> , 2008, 368, 582-587.	2.1	37
99	The molecular fingerprint of lung inflammation after blunt chest trauma. <i>European Journal of Medical Research</i> , 2015, 20, 70.	2.2	37
100	Influence of Menopause on Inflammatory Cytokines during Murine and Human Bone Fracture Healing. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2070.	4.1	37
101	Fracture Healing Is Delayed in Immunodeficient NOD/scid ^l IL2R ^β γnull Mice. <i>PLoS ONE</i> , 2016, 11, e0147465	2.5	37
102	Effects of Multi-Deficiencies-Diet on Bone Parameters of Peripheral Bone in Ovariectomized Mature Rat. <i>PLoS ONE</i> , 2013, 8, e71665.	2.5	36
103	Effects of mechanical strain on human mesenchymal stem cells and ligament fibroblasts in a textured poly(L-lactide) scaffold for ligament tissue engineering. <i>Journal of Materials Science: Materials in Medicine</i> , 2012, 23, 2575-2582.	3.6	35
104	A Degenerative/Proinflammatory Intervertebral Disc Organ Culture: An <i>Ex Vivo</i> Model for Anti-inflammatory Drug and Cell Therapy. <i>Tissue Engineering - Part C: Methods</i> , 2016, 22, 8-19.	2.1	35
105	Complement receptors C5aR1 and C5aR2 act differentially during the early immune response after bone fracture but are similarly involved in bone repair. <i>Scientific Reports</i> , 2017, 7, 14061.	3.3	35
106	A New Experimental Polytrauma Model in Rats: Molecular Characterization of the Early Inflammatory Response. <i>Mediators of Inflammation</i> , 2012, 2012, 1-9.	3.0	33
107	Analgesia via blockade of NGF/TrkA signaling does not influence fracture healing in mice. <i>Journal of Orthopaedic Research</i> , 2015, 33, 1235-1241.	2.3	33
108	The SERM raloxifene improves diaphyseal fracture healing in mice. <i>Journal of Bone and Mineral Metabolism</i> , 2013, 31, 629-636.	2.7	32

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109	The mode of interfragmentary movement affects bone formation and revascularization after callus distraction. <i>PLoS ONE</i> , 2018, 13, e0202702.	2.5	32
110	Human mesenchymal progenitor cell responses to a novel textured poly(L-lactide) scaffold for ligament tissue engineering. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2007, 81B, 82-90.	3.4	31
111	Influence of low glucose supply on the regulation of gene expression by nucleus pulposus cells and their responsiveness to mechanical loading. <i>Journal of Neurosurgery: Spine</i> , 2010, 13, 535-542.	1.7	31
112	New perspectives on vitamin D food fortification based on a modeling of 25(OH)D concentrations. <i>Nutrition Journal</i> , 2013, 12, 151.	3.4	31
113	Osteoarthritic cartilage explants affect extracellular matrix production and composition in cocultured bone marrow-derived mesenchymal stem cells and articular chondrocytes. <i>Stem Cell Research and Therapy</i> , 2014, 5, 77.	5.5	31
114	Systemic treatment with the sphingosine-1-phosphate analog FTY720 does not improve fracture healing in mice. <i>Journal of Orthopaedic Research</i> , 2013, 31, 1845-1850.	2.3	30
115	Comparison between Different Methods for Biomechanical Assessment of Ex Vivo Fracture Callus Stiffness in Small Animal Bone Healing Studies. <i>PLoS ONE</i> , 2015, 10, e0119603.	2.5	30
116	Midkine-deficiency increases the anabolic response of cortical bone to mechanical loading. <i>Bone</i> , 2011, 48, 945-951.	2.9	29
117	Osteogenic capacity of nanocrystalline bone cement in a weight-bearing defect at the ovine tibial metaphysis. <i>International Journal of Nanomedicine</i> , 2012, 7, 2883.	6.7	29
118	Exposure to 100% Oxygen Abolishes the Impairment of Fracture Healing after Thoracic Trauma. <i>PLoS ONE</i> , 2015, 10, e0131194.	2.5	29
119	The Role of the Intestinal Microbiome in Chronic Psychosocial Stress-Induced Pathologies in Male Mice. <i>Frontiers in Behavioral Neuroscience</i> , 2018, 12, 252.	2.0	29
120	Midkine-Deficiency Delays Chondrogenesis during the Early Phase of Fracture Healing in Mice. <i>PLoS ONE</i> , 2014, 9, e116282.	2.5	29
121	Glucocorticoid-treated sheep as a model for osteopenic trabecular bone in biomaterials research. <i>Journal of Biomedical Materials Research Part B</i> , 2003, 66A, 457-462.	3.1	28
122	Temporal Variation in Fixation Stiffness Affects Healing by Differential Cartilage Formation in a Rat Osteotomy Model. <i>Clinical Orthopaedics and Related Research</i> , 2011, 469, 3094-3101.	1.5	28
123	Role of Complement on Broken Surfaces After Trauma. <i>Advances in Experimental Medicine and Biology</i> , 2015, 865, 43-55.	1.6	28
124	Antioxidative therapy in an ex vivo human cartilage trauma-model: attenuation of trauma-induced cell loss and ECM-destructive enzymes by N-acetyl cysteine. <i>Osteoarthritis and Cartilage</i> , 2016, 24, 2171-2180.	1.3	28
125	C5aR1 interacts with TLR2 in osteoblasts and stimulates the osteoclast-inducing chemokine CXCL10. <i>Journal of Cellular and Molecular Medicine</i> , 2018, 22, 6002-6014.	3.6	28
126	Differences in Fracture Healing Between Female and Male C57BL/6J Mice. <i>Frontiers in Physiology</i> , 2021, 12, 712494.	2.8	28

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127	Mechanical regulation of HB-GAM expression in bone cells. <i>Biochemical and Biophysical Research Communications</i> , 2004, 319, 951-958.	2.1	27
128	Mechanical Stimulation Alters Pleiotrophin and Aggrecan Expression by Human Intervertebral Disc Cells and Influences Their Capacity to Stimulate Endothelial Cell Migration. <i>Spine</i> , 2009, 34, 663-669.	2.0	27
129	Prediction of the Time Course of Callus Stiffness as a Function of Mechanical Parameters in Experimental Rat Fracture Healing Studies - A Numerical Study. <i>PLoS ONE</i> , 2014, 9, e115695.	2.5	27
130	Review of Animal Models of Comorbidities in Fracture Healing Research. <i>Journal of Orthopaedic Research</i> , 2019, 37, 2491-2498.	2.3	27
131	Estrogen receptor $\hat{1}\pm$ ($ER\hat{1}\pm$), but not $ER\hat{2}$ -signaling, is crucially involved in mechanostimulation of bone fracture healing by whole-body vibration. <i>Bone</i> , 2018, 110, 11-20.	2.9	26
132	Degeneration alters the biomechanical properties and structural composition of lateral human menisci. <i>Osteoarthritis and Cartilage</i> , 2020, 28, 1482-1491.	1.3	26
133	Osteoblast-specific overexpression of complement receptor C5aR1 impairs fracture healing. <i>PLoS ONE</i> , 2017, 12, e0179512.	2.5	26
134	Accelerated bone regeneration through rational design of magnesium phosphate cements. <i>Acta Biomaterialia</i> , 2022, 145, 358-371.	8.3	26
135	Signal transduction pathways involved in mechanical regulation of HB-GAM expression in osteoblastic cells. <i>Biochemical and Biophysical Research Communications</i> , 2006, 342, 1070-1076.	2.1	25
136	Anterior Knee Laxity Increases Gapping of Posterior Horn Medial Meniscal Tears. <i>American Journal of Sports Medicine</i> , 2011, 39, 1749-1756.	4.2	25
137	Quantitative analyses of bone composition in acetylcholine receptor M3R and alpha7 knockout mice. <i>Life Sciences</i> , 2012, 91, 997-1002.	4.3	25
138	Blunt Chest Trauma in Mice after Cigarette Smoke-Exposure: Effects of Mechanical Ventilation with 100 % O ₂ . <i>PLoS ONE</i> , 2015, 10, e0132810.	2.5	25
139	Antagonizing midkine accelerates fracture healing in mice by enhanced bone formation in the fracture callus. <i>British Journal of Pharmacology</i> , 2016, 173, 2237-2249.	5.4	25
140	Systemic mesenchymal stem cell administration enhances bone formation in fracture repair but not load-induced bone formation. , 2015, 29, 22-34.		25
141	A novel method for lateral callus distraction and its importance for the mechano-biology of bone formation. <i>Bone</i> , 2010, 47, 712-717.	2.9	24
142	The effect of both a thoracic trauma and a soft-tissue trauma on fracture healing in a rat model. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2011, 82, 223-227.	3.3	24
143	Increasing posterior tibial slope does not raise anterior cruciate ligament strain but decreases tibial rotation ability. <i>Clinical Biomechanics</i> , 2013, 28, 285-290.	1.2	24
144	Bone Matrix, Cellularity, and Structural Changes in a Rat Model with High-Turnover Osteoporosis Induced by Combined Ovariectomy and a Multiple-Deficient Diet. <i>American Journal of Pathology</i> , 2014, 184, 765-777.	3.8	24

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145	Biomechanical, structural and biological characterisation of a new silk fibroin scaffold for meniscal repair. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 86, 314-324.	3.1	24
146	Sheep model for osteoporosis: Sustainability and biomechanical relevance of low turnover osteoporosis induced by hypothalamic-pituitary disconnection. <i>Journal of Orthopaedic Research</i> , 2013, 31, 1067-1074.	2.3	23
147	Induced global deletion of glucocorticoid receptor impairs fracture healing. <i>FASEB Journal</i> , 2018, 32, 2235-2245.	0.5	23
148	Molecular Interactions Between Human Cartilaginous Endplates and Nucleus Pulposus Cells. <i>Spine</i> , 2014, 39, 1355-1364.	2.0	22
149	Material properties of individual menisci and their attachments obtained through inverse FE-analysis. <i>Journal of Biomechanics</i> , 2015, 48, 1343-1349.	2.1	22
150	Friction properties of a new silk fibroin scaffold for meniscal replacement. <i>Tribology International</i> , 2017, 109, 586-592.	5.9	22
151	Chronic psychosocial stress disturbs long-bone growth in adolescent mice. <i>DMM Disease Models and Mechanisms</i> , 2017, 10, 1399-1409.	2.4	22
152	Phytic acid as alternative setting retarder enhanced biological performance of dicalcium phosphate cement in vitro. <i>Scientific Reports</i> , 2017, 7, 558.	3.3	22
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