Anita Ignatius

List of Publications by Citations

278 papers	8,362 citations	46 h-index	76 g-index
308 ext. papers	9,896 ext. citations	5 avg, IF	6.09 L-index

#	Paper	IF	Citations
278	Fracture healing under healthy and inflammatory conditions. *Nature Reviews Rheumatology*, **2012**, 8, 133-43	8.1	626
277	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. *Cytotherapy*, **2012**, 14, 540-54	4.8	207
276	Signal transduction pathways involved in mechanotransduction in bone cells. *Biochemical and Biophysical Research Communications*, **2006**, 349, 1-5	3.4	200
275	Decellularized cartilage matrix as a novel biomatrix for cartilage tissue-engineering applications. *Tissue Engineering - Part A*, **2012**, 18, 2195-209	3.9	170
274	New insights of an old defense system: structure, function, and clinical relevance of the complement system. *Molecular Medicine*, **2011**, 17, 317-29	6.2	162
273	Bone formation in a long bone defect model using a platelet-rich plasma-loaded collagen scaffold. *Biomaterials*, **2006**, 27, 1817-23	15.6	154
272	TSG-6 released from intradermally injected mesenchymal stem cells accelerates wound healing and reduces tissue fibrosis in murine full-thickness skin wounds. *Journal of Investigative Dermatology*, **2014**, 134, 526-537	4.3	153
271	Proliferation of human-derived osteoblast-like cells depends on the cycle number and frequency of uniaxial strain. *Journal of Biomechanics*, **2002**, 35, 873-80	2.9	139
270	GMP-compliant isolation and large-scale expansion of bone marrow-derived MSC. *PLoS ONE*, **2012**, 7, e43255	3.7	136
269	Small animal bone healing models: standards, tips, and pitfalls results of a consensus meeting. *Bone* , **2011**, 49, 591-9	4.7	118
268	Complement C3a and C5a modulate osteoclast formation and inflammatory response of osteoblasts in synergism with IL-1 *Journal of Cellular Biochemistry*, **2011**, 112, 2594-605	4.7	116
267	Nanoparticles and their potential for application in bone. *International Journal of Nanomedicine*, **2012**, 7, 4545-57	7.3	110
266	Finite element modeling of soft tissues: material models, tissue interaction and challenges. *Clinical Biomechanics*, **2014**, 29, 363-72	2.2	94
265	Primary stability and strain distribution of cementless hip stems as a function of implant design. *Clinical Biomechanics*, **2012**, 27, 158-64	2.2	94
264	Effect of subchondral drilling on the microarchitecture of subchondral bone: analysis in a large animal model at 6 months. *American Journal of Sports Medicine*, **2012**, 40, 828-36	6.8	93
263	GMP-compliant isolation and expansion of bone marrow-derived MSCs in the closed, automated device quantum cell expansion system. *Cell Transplantation*, **2013**, 22, 1981-2000	4	92
262	Regulation of gene expression in intervertebral disc cells by low and high hydrostatic pressure. *European Spine Journal*, **2006**, 15 Suppl 3, S372-8	2.7	91

261	Early, full weightbearing with flexible fixation delays fracture healing. *Clinical Orthopaedics and Related Research*, **1996**, 194-202	2.2	89
260	In vivo degradation of low temperature calcium and magnesium phosphate ceramics in a heterotopic model. *Acta Biomaterialia*, **2011**, 7, 3469-75	10.8	86
259	Fabrication, mechanical and in vivo performance of polycaprolactone/tricalcium phosphate composite scaffolds. *Acta Biomaterialia*, **2012**, 8, 3446-56	10.8	83
258	Fracture healing in mice under controlled rigid and flexible conditions using an adjustable external fixator. *Journal of Orthopaedic Research*, **2010**, 28, 1456-62	3.8	80
257	Control of in vivo mineral bone cement degradation. *Acta Biomaterialia*, **2014**, 10, 3279-87	10.8	79
256	The crucial role of neutrophil granulocytes in bone fracture healing. *European Cells and Materials*, **2016**, 32, 152-62	4.3	77
255	Accelerated aging phenotype in mice with conditional deficiency for mitochondrial superoxide dismutase in the connective tissue. *Aging Cell*, **2011**, 10, 239-54	9.9	73
254	The role of complement in trauma and fracture healing. *Seminars in Immunology*, **2013**, 25, 73-8	10.7	68
253	Early dynamization by reduced fixation stiffness does not improve fracture healing in a rat femoral osteotomy model. *Journal of Orthopaedic Research*, **2009**, 27, 22-7	3.8	68
252	Biomechanics of a short stem: In vitro primary stability and stress shielding of a conservative cementless hip stem. *Journal of Orthopaedic Research*, **2013**, 31, 1180-6	3.8	66
251	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. *BMC Molecular Biology*, **2015**, 16, 6	4.5	65
250	Effect of partial meniscectomy at the medial posterior horn on tibiofemoral contact mechanics and meniscal hoop strains in human knees. *Journal of Orthopaedic Research*, **2012**, 30, 934-42	3.8	65
249	Interactions of environmental conditions and mechanical loads have influence on matrix turnover by nucleus pulposus cells. *Journal of Orthopaedic Research*, **2012**, 30, 112-21	3.8	64
248	A new metaphyseal bone defect model in osteoporotic rats to study biomaterials for the enhancement of bone healing in osteoporotic fractures. *Acta Biomaterialia*, **2013**, 9, 7035-42	10.8	64
247	A three-dimensional collagen matrix as a suitable culture system for the comparison of cyclic strain and hydrostatic pressure effects on intervertebral disc cells. *Journal of Neurosurgery: Spine*, **2005**, 2, 457-65	2.8	64
246	Estrogen receptor and Wnt signaling interact to regulate early gene expression in response to mechanical strain in osteoblastic cells. *Biochemical and Biophysical Research Communications*, **2010**, 394, 755-9	3.4	62
245	Processed xenogenic cartilage as innovative biomatrix for cartilage tissue engineering: effects on chondrocyte differentiation and function. *Journal of Tissue Engineering and Regenerative Medicine*, **2015**, 9, E239-51	4.4	58
244	Experimental blunt chest trauma impairs fracture healing in rats. *Journal of Orthopaedic Research*, **2011**, 29, 734-9	3.8	57

243	Resorbable polymer fibers for ligament augmentation. *Journal of Biomedical Materials Research Part B*, **2001**, 58, 666-72		57
242	Metaphyseal fracture healing follows similar biomechanical rules as diaphyseal healing. *Journal of Orthopaedic Research*, **2011**, 29, 425-32	3.8	54
241	Distinct Effects of IL-6 Classic and Trans-Signaling in Bone Fracture Healing. *American Journal of Pathology*, **2018**, 188, 474-490	5.8	54
240	Tenomodulin is Required for Tendon Endurance Running and Collagen I Fibril Adaptation to Mechanical Load. *EBioMedicine*, **2017**, 20, 240-254	8.8	53
239	The anaphylatoxin receptor C5aR is present during fracture healing in rats and mediates osteoblast migration in vitro. *Journal of Trauma*, **2011**, 71, 952-60		53
238	Preliminary investigations on intradiscal pressures during daily activities: an in vivo study using the merino sheep. *PLoS ONE*, **2013**, 8, e69610	3.7	53
237	IL-1□nhibits human osteoblast migration. *Molecular Medicine*, **2013**, 19, 36-42	6.2	52
236	Stress-relaxation response of human menisci under confined compression conditions. *Journal of the Mechanical Behavior of Biomedical Materials*, **2013**, 26, 68-80	4.1	51
235	Neutrophils in Tissue Trauma of the Skin, Bone, and Lung: Two Sides of the Same Coin. *Journal of Immunology Research*, **2018**, 2018, 8173983	4.5	48
234	H2S during circulatory shock: some unresolved questions. *Nitric Oxide - Biology and Chemistry*, **2014**, 41, 48-61	5	47
233	Hydrogels for nucleus replacement--facing the biomechanical challenge. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 14, 67-77	4.1	47
232	The impact of low-magnitude high-frequency vibration on fracture healing is profoundly influenced by the oestrogen status in mice. *DMM Disease Models and Mechanisms*, **2015**, 8, 93-104	4.1	46
231	Late dynamization by reduced fixation stiffness enhances fracture healing in a rat femoral osteotomy model. *Journal of Orthopaedic Trauma*, **2011**, 25, 169-74	3.1	45
230	In vivo performance of a novel silk fibroin scaffold for partial meniscal replacement in a sheep model. *Knee Surgery, Sports Traumatology, Arthroscopy*, **2015**, 23, 2218-2229	5.5	43
229	Bone regeneration capacity of magnesium phosphate cements in a large animal model. *Acta Biomaterialia*, **2018**, 69, 352-361	10.8	43
228	Complement involvement in bone homeostasis and bone disorders. *Seminars in Immunology*, **2018**, 37, 53-65	10.7	43
227	Calcium and vitamin D in bone fracture healing and post-traumatic bone turnover. *European Cells and Materials*, **2018**, 35, 365-385	4.3	43
226	Effect of functionalised fluorescence-labelled nanoparticles on mesenchymal stem cell differentiation. *Biomaterials*, **2010**, 31, 2064-71	15.6	43

225	Systemic inflammation induced by a thoracic trauma alters the cellular composition of the early fracture callus. *Journal of Trauma and Acute Care Surgery*, **2013**, 74, 531-7	3.3	42
224	Effects of estrogen on fracture healing in mice. *Journal of Trauma*, **2010**, 69, 1259-65		42
223	Comparative animal study of three ligament prostheses for the replacement of the anterior cruciate and medial collateral ligament. *Biomaterials*, **1996**, 17, 977-82	15.6	42
222	Delayed bone healing following high tibial osteotomy related to increased implant stiffness in locked plating. *Injury*, **2014**, 45, 1648-52	2.5	41
221	Bone tissue engineering in osteoporosis. *Maturitas*, **2013**, 75, 118-24	5	41
220	Temporary distraction and compression of a diaphyseal osteotomy accelerates bone healing. *Journal of Orthopaedic Research*, **2008**, 26, 772-7	3.8	41
219	Osseointegration of alumina with a bioactive coating under load-bearing and unloaded conditions. *Biomaterials*, **2005**, 26, 2325-32	15.6	40
218	Local detection of mechanically induced ATP release from bone cells with ATP microbiosensors. *Biosensors and Bioelectronics*, **2013**, 44, 27-33	11.8	39
217	Glucocorticoid treatment of ovariectomized sheep affects mineral density, structure, and mechanical properties of cancellous bone. *Journal of Bone and Mineral Research*, **2003**, 18, 2010-5	6.3	39
216	Does complement play a role in bone development and regeneration?. *Immunobiology*, **2013**, 218, 1-9	3.4	38
215	Spatiotemporally Controlled Release of Rho-Inhibiting C3 Toxin from a Protein-DNA Hybrid Hydrogel for Targeted Inhibition of Osteoclast Formation and Activity. *Advanced Healthcare Materials*, **2017**, 6, 1700392	10.1	38
214	Complement C3 and C5 deficiency affects fracture healing. *PLoS ONE*, **2013**, 8, e81341	3.7	38
213	C5aR-antagonist significantly reduces the deleterious effect of a blunt chest trauma on fracture healing. *Journal of Orthopaedic Research*, **2012**, 30, 581-6	3.8	37
212	Disadvantages of interfragmentary shear on fracture healing--mechanical insights through numerical simulation. *Journal of Orthopaedic Research*, **2014**, 32, 865-72	3.8	37
211	Distinct frequency dependent effects of whole-body vibration on non-fractured bone and fracture healing in mice. *Journal of Orthopaedic Research*, **2014**, 32, 1006-13	3.8	37
210	The Wnt serpentine receptor Frizzled-9 regulates new bone formation in fracture healing. *PLoS ONE*, **2013**, 8, e84232	3.7	37
209	Molecular mechanisms of glucocorticoids on skeleton and bone regeneration after fracture. *Journal of Molecular Endocrinology*, **2018**, 61, R75-R90	4.5	36
208	Mouse Models in Bone Fracture Healing Research. *Current Molecular Biology Reports*, **2016**, 2, 101-111	2	36

207	Mast Cells Are Critical Regulators of Bone Fracture-Induced Inflammation and Osteoclast Formation and Activity. *Journal of Bone and Mineral Research*, **2017**, 32, 2431-2444	6.3	35
206	Subchondral bone influences chondrogenic differentiation and collagen production of human bone marrow-derived mesenchymal stem cells and articular chondrocytes. *Arthritis Research and Therapy*, **2014**, 16, 453	5.7	35
205	Complement C5a Functions as a Master Switch for the pH Balance in Neutrophils Exerting Fundamental Immunometabolic Effects. *Journal of Immunology*, **2017**, 198, 4846-4854	5.3	34
204	Numerical simulation of callus healing for optimization of fracture fixation stiffness. *PLoS ONE*, **2014**, 9, e101370	3.7	34
203	Prediction of fracture healing under axial loading, shear loading and bending is possible using distortional and dilatational strains as determining mechanical stimuli. *Journal of the Royal Society Interface*, **2013**, 10, 20130389	4.1	34
202	Mechanical regulation of osteoclastic genes in human osteoblasts. *Biochemical and Biophysical Research Communications*, **2008**, 368, 582-7	3.4	34
201	Inhibition of cortical and cancellous bone formation in glucocorticoid-treated OVX sheep. *Bone*, **2005**, 37, 491-6	4.7	34
200	The protein tyrosine phosphatase Rptpzeta is expressed in differentiated osteoblasts and affects bone formation in mice. *Bone*, **2008**, 42, 524-34	4.7	33
199	Differences of bone healing in metaphyseal defect fractures between osteoporotic and physiological bone in rats. *Injury*, **2014**, 45, 487-93	2.5	32
198	A new experimental polytrauma model in rats: molecular characterization of the early inflammatory response. *Mediators of Inflammation*, **2012**, 2012, 890816	4.3	32
197	In vivo performance of novel soybean/gelatin-based bioactive and injectable hydroxyapatite foams. *Acta Biomaterialia*, **2015**, 12, 242-249	10.8	30
196	Modulation of fixation stiffness from flexible to stiff in a rat model of bone healing. *Monthly Notices of the Royal Astronomical Society: Letters*, **2017**, 88, 217-222	4.3	30
195	Medial meniscal displacement and strain in three dimensions under compressive loads: MR assessment. *Journal of Magnetic Resonance Imaging*, **2014**, 40, 1181-8	5.6	30
194	Effects of mechanical strain on human mesenchymal stem cells and ligament fibroblasts in a textured poly(L-lactide) scaffold for ligament tissue engineering. *Journal of Materials Science: Materials in Medicine*, **2012**, 23, 2575-82	4.5	30
193	The molecular fingerprint of lung inflammation after blunt chest trauma. *European Journal of Medical Research*, **2015**, 20, 70	4.8	29
192	In vivo biofunctional evaluation of hydrogels for disc regeneration. *European Spine Journal*, **2014**, 23, 19-26	2.7	29
191	Mitogens are increased in the systemic circulation during bone callus healing. *Journal of Orthopaedic Research*, **2003**, 21, 320-5	3.8	29
190	Neuroinflammation after Traumatic Brain Injury Is Enhanced in Activating Transcription Factor 3 Mutant Mice. *Journal of Neurotrauma*, **2018**, 35, 2317-2329	5.4	28

189	A Degenerative/Proinflammatory Intervertebral Disc Organ Culture: An Ex Vivo Model for Anti-inflammatory Drug and Cell Therapy. *Tissue Engineering - Part C: Methods*, **2016**, 22, 8-19	2.9	28
188	New perspectives on vitamin D food fortification based on a modeling of 25(OH)D concentrations. *Nutrition Journal*, **2013**, 12, 151	4.3	28
187	The inflammatory phase of fracture healing is influenced by oestrogen status in mice. *European Journal of Medical Research*, **2017**, 22, 23	4.8	27
186	Pharmacological inhibition of IL-6 trans-signaling improves compromised fracture healing after severe trauma. *Naunyn-Schmiedebergjs Archives of Pharmacology*, **2018**, 391, 523-536	3.4	27
185	Influence of low glucose supply on the regulation of gene expression by nucleus pulposus cells and their responsiveness to mechanical loading. *Journal of Neurosurgery: Spine*, **2010**, 13, 535-42	2.8	27
184	Midkine-deficiency delays chondrogenesis during the early phase of fracture healing in mice. *PLoS ONE*, **2014**, 9, e116282	3.7	27
183	Fracture Healing Is Delayed in Immunodeficient NOD/scid- IL2R□null Mice. *PLoS ONE*, **2016**, 11, e0147465	3.7	27
182	A novel model to study metaphyseal bone healing under defined biomechanical conditions. *Archives of Orthopaedic and Trauma Surgery*, **2009**, 129, 923-8	3.6	26
181	Osteogenic capacity of nanocrystalline bone cement in a weight-bearing defect at the ovine tibial metaphysis. *International Journal of Nanomedicine*, **2012**, 7, 2883-9	7.3	25
180	Human mesenchymal progenitor cell responses to a novel textured poly(L-lactide) scaffold for ligament tissue engineering. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2007**, 81, 82-90	3.5	25
179	Mechanical regulation of HB-GAM expression in bone cells. *Biochemical and Biophysical Research Communications*, **2004**, 319, 951-8	3.4	25
178	Role of the Complement System in the Response to Orthopedic Biomaterials. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	25
177	Estrogen receptor □(ER□), but not ER□signaling, is crucially involved in mechanostimulation of bone fracture healing by whole-body vibration. *Bone*, **2018**, 110, 11-20	4.7	24
176	Mechanical stimulation alters pleiotrophin and aggrecan expression by human intervertebral disc cells and influences their capacity to stimulate endothelial migration. *Spine*, **2009**, 34, 663-9	3.3	24
175	Effects of multi-deficiencies-diet on bone parameters of peripheral bone in ovariectomized mature rat. *PLoS ONE*, **2013**, 8, e71665	3.7	24
174	Osteoarthritic cartilage explants affect extracellular matrix production and composition in cocultured bone marrow-derived mesenchymal stem cells and articular chondrocytes. *Stem Cell Research and Therapy*, **2014**, 5, 77	8.3	23
173	Calcium and vitamin-D deficiency marginally impairs fracture healing but aggravates posttraumatic bone loss in osteoporotic mice. *Scientific Reports*, **2017**, 7, 7223	4.9	23
172	Role of Complement on Broken Surfaces After Trauma. *Advances in Experimental Medicine and Biology*, **2015**, 865, 43-55	3.6	23

171	Prediction of the time course of callus stiffness as a function of mechanical parameters in experimental rat fracture healing studies--a numerical study. *PLoS ONE*, **2014**, 9, e115695	3.7	23
170	Midkine-deficiency increases the anabolic response of cortical bone to mechanical loading. *Bone*, **2011**, 48, 945-51	4.7	23
169	The effect of both a thoracic trauma and a soft-tissue trauma on fracture healing in a rat model. *Monthly Notices of the Royal Astronomical Society: Letters*, **2011**, 82, 223-7	4.3	23
168	Glucocorticoid-treated sheep as a model for osteopenic trabecular bone in biomaterials research. *Journal of Biomedical Materials Research Part B*, **2003**, 66, 457-62		23
167	Systemic mesenchymal stem cell administration enhances bone formation in fracture repair but not load-induced bone formation. *European Cells and Materials*, **2015**, 29, 22-34	4.3	23
166	Influence of Menopause on Inflammatory Cytokines during Murine and Human Bone Fracture Healing. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	22
165	Analgesia via blockade of NGF/TrkA signaling does not influence fracture healing in mice. *Journal of Orthopaedic Research*, **2015**, 33, 1235-41	3.8	22
164	Systemic treatment with the sphingosine-1-phosphate analog FTY720 does not improve fracture healing in mice. *Journal of Orthopaedic Research*, **2013**, 31, 1845-50	3.8	22
163	Temporal variation in fixation stiffness affects healing by differential cartilage formation in a rat osteotomy model. *Clinical Orthopaedics and Related Research*, **2011**, 469, 3094-101	2.2	22
162	Comparison between different methods for biomechanical assessment of ex vivo fracture callus stiffness in small animal bone healing studies. *PLoS ONE*, **2015**, 10, e0119603	3.7	22
161	The Role of Mast Cells in Bone Metabolism and Bone Disorders. *Frontiers in Immunology*, **2020**, 11, 163	8.4	22
160	Chronic psychosocial stress compromises the immune response and endochondral ossification during bone fracture healing via AR signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 8615-8622	11.5	21
159	The SERM raloxifene improves diaphyseal fracture healing in mice. *Journal of Bone and Mineral Metabolism*, **2013**, 31, 629-36	2.9	21
158	Exposure to 100% Oxygen Abolishes the Impairment of Fracture Healing after Thoracic Trauma. *PLoS ONE*, **2015**, 10, e0131194	3.7	21
157	A novel method for lateral callus distraction and its importance for the mechano-biology of bone formation. *Bone*, **2010**, 47, 712-7	4.7	21
156	Anterior knee laxity increases gapping of posterior horn medial meniscal tears. *American Journal of Sports Medicine*, **2011**, 39, 1749-55	6.8	21
155	Strontium(II) and mechanical loading additively augment bone formation in calcium phosphate scaffolds. *Journal of Orthopaedic Research*, **2018**, 36, 106-117	3.8	20
154	Blunt Chest Trauma in Mice after Cigarette Smoke-Exposure: Effects of Mechanical Ventilation with 100% O2. *PLoS ONE*, **2015**, 10, e0132810	3.7	20

153	A small scale cell culture system to analyze mechanobiology using reporter gene constructs and polyurethane dishes. *European Cells and Materials*, **2010**, 20, 344-55	4.3	20
152	Complement receptors C5aR1 and C5aR2 act differentially during the early immune response after bone fracture but are similarly involved in bone repair. *Scientific Reports*, **2017**, 7, 14061	4.9	19
151	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. *Stem Cells*, **2019**, 37, 1057-1074	5.8	19
150	Antagonizing midkine accelerates fracture healing in mice by enhanced bone formation in the fracture callus. *British Journal of Pharmacology*, **2016**, 173, 2237-49	8.6	19
149	Bone matrix, cellularity, and structural changes in a rat model with high-turnover osteoporosis induced by combined ovariectomy and a multiple-deficient diet. *American Journal of Pathology*, **2014**, 184, 765-77	5.8	19
148	Molecular interactions between human cartilaginous endplates and nucleus pulposus cells: a preliminary investigation. *Spine*, **2014**, 39, 1355-64	3.3	19
147	Quantitative analyses of bone composition in acetylcholine receptor M3R and alpha7 knockout mice. *Life Sciences*, **2012**, 91, 997-1002	6.8	19
146	Sheep model for osteoporosis: sustainability and biomechanical relevance of low turnover osteoporosis induced by hypothalamic-pituitary disconnection. *Journal of Orthopaedic Research*, **2013**, 31, 1067-74	3.8	19
145	Improved anchorage of Ti6Al4V orthopaedic bone implants through oligonucleotide mediated immobilization of BMP-2 in osteoporotic rats. *PLoS ONE*, **2014**, 9, e86151	3.7	18
144	Single impact trauma in human early-stage osteoarthritic cartilage: implication of prostaglandin D2 but no additive effect of IL-1□bn cell survival. *International Journal of Molecular Medicine*, **2011**, 28, 271-7	4.4	18
143	Signal transduction pathways involved in mechanical regulation of HB-GAM expression in osteoblastic cells. *Biochemical and Biophysical Research Communications*, **2006**, 342, 1070-6	3.4	18
142	Review of Animal Models of Comorbidities in Fracture-Healing Research. *Journal of Orthopaedic Research*, **2019**, 37, 2491-2498	3.8	17
141	The mode of interfragmentary movement affects bone formation and revascularization after callus distraction. *PLoS ONE*, **2018**, 13, e0202702	3.7	17
140	Evaluation of platelet-rich plasma and hydrostatic pressure regarding cell differentiation in nucleus pulposus tissue engineering. *Journal of Tissue Engineering and Regenerative Medicine*, **2013**, 7, 244-52	4.4	17
139	Increasing posterior tibial slope does not raise anterior cruciate ligament strain but decreases tibial rotation ability. *Clinical Biomechanics*, **2013**, 28, 285-90	2.2	17
138	Phytic acid as alternative setting retarder enhanced biological performance of dicalcium phosphate cement in vitro. *Scientific Reports*, **2017**, 7, 558	4.9	17
137	Increased trabecular bone formation in mice lacking the growth factor midkine. *Journal of Bone and Mineral Research*, **2010**, 25, 1724-35	6.3	17
136	Piezo1 Inactivation in Chondrocytes Impairs Trabecular Bone Formation. *Journal of Bone and Mineral Research*, **2021**, 36, 369-384	6.3	17

135	Antioxidative therapy in an ex vivo human cartilage trauma-model: attenuation of trauma-induced cell loss and ECM-destructive enzymes by N-acetyl cysteine. *Osteoarthritis and Cartilage*, **2016**, 24, 2171-2180	6.2	16
134	Osteoblast-specific Krm2 overexpression and Lrp5 deficiency have different effects on fracture healing in mice. *PLoS ONE*, **2014**, 9, e103250	3.7	16
133	Low turnover osteoporosis in sheep induced by hypothalamic-pituitary disconnection. *Journal of Orthopaedic Research*, **2012**, 30, 1254-62	3.8	16
132	Effects of increased bone formation on fracture healing in mice. *Journal of Trauma*, **2011**, 70, 857-62		16
131	Influence of receptor activator of nuclear factor (NF)-kappaB ligand (RANKL), macrophage-colony stimulating factor (M-CSF) and fetal calf serum on human osteoclast formation and activity. *Journal of Molecular Histology*, **2007**, 38, 341-5	3.3	16
130	Osteoblast-specific overexpression of complement receptor C5aR1 impairs fracture healing. *PLoS ONE*, **2017**, 12, e0179512	3.7	16
129	Induced global deletion of glucocorticoid receptor impairs fracture healing. *FASEB Journal*, **2018**, 32, 2235-2245	0.9	16
128	Friction properties of a new silk fibroin scaffold for meniscal replacement. *Tribology International*, **2017**, 109, 586-592	4.9	15
127	Biomechanical, structural and biological characterisation of a new silk fibroin scaffold for meniscal repair. *Journal of the Mechanical Behavior of Biomedical Materials*, **2018**, 86, 314-324	4.1	15
126	Optimization of intramedullary nailing by numerical simulation of fracture healing. *Journal of Orthopaedic Research*, **2012**, 30, 569-73	3.8	15
125	New perspectives on vitamin D sources in Germany based on a novel mathematical bottom-up model of 25(OH)D serum concentrations. *European Journal of Nutrition*, **2013**, 52, 1733-42	5.2	15
124	Inhibition of Midkine Augments Osteoporotic Fracture Healing. *PLoS ONE*, **2016**, 11, e0159278	3.7	15
123	The Role of the Intestinal Microbiome in Chronic Psychosocial Stress-Induced Pathologies in Male Mice. *Frontiers in Behavioral Neuroscience*, **2018**, 12, 252	3.5	15
122	Mg:Ca ratio as regulating factor for osteoclastic in vitro resorption of struvite biocements. *Materials Science and Engineering C*, **2017**, 73, 111-119	8.3	14
121	Impaired extracellular matrix structure resulting from malnutrition in ovariectomized mature rats. *Histochemistry and Cell Biology*, **2015**, 144, 491-507	2.4	14
120	Effects of low-magnitude high-frequency vibration on osteoblasts are dependent on estrogen receptor signaling and cytoskeletal remodeling. *Biochemical and Biophysical Research Communications*, **2018**, 503, 2678-2684	3.4	14
119	Conversion from external fixator to intramedullary nail causes a second hit and impairs fracture healing in a severe trauma model. *Journal of Orthopaedic Research*, **2013**, 31, 465-71	3.8	14
118	Direct and indirect effects of functionalised fluorescence-labelled nanoparticles on human osteoclast formation and activity. *Biomaterials*, **2011**, 32, 1706-14	15.6	14

117	Biological and mechanical performance and degradation characteristics of calcium phosphate cements in large animals and humans. *Acta Biomaterialia*, **2020**, 117, 1-20	10.8	14
116	Chronic psychosocial stress disturbs long-bone growth in adolescent mice. *DMM Disease Models and Mechanisms*, **2017**, 10, 1399-1409	4.1	13
115	Material properties of individual menisci and their attachments obtained through inverse FE-analysis. *Journal of Biomechanics*, **2015**, 48, 1343-9	2.9	13
114	Influence of partial meniscectomy on attachment forces, superficial strain and contact mechanics in porcine knee joints. *Knee Surgery, Sports Traumatology, Arthroscopy*, **2015**, 23, 74-82	5.5	13
113	Biomechanics of a cemented short stem: Standard vs. line-to-line cementation techniques. A biomechanical in-vitro study involving six osteoporotic pairs of human cadaver femurs. *Clinical Biomechanics*, **2018**, 52, 86-94	2.2	13
112	Phosphorylation and turnover of paxillin in focal contacts is controlled by force and defines the dynamic state of the adhesion site. *Cytoskeleton*, **2015**, 72, 101-12	2.4	13
111	Release of the medial collateral ligament is mandatory in medial open-wedge high tibial osteotomy. *Knee Surgery, Sports Traumatology, Arthroscopy*, **2019**, 27, 2917-2926	5.5	13
110	Non-union bone fractures. *Nature Reviews Disease Primers*, **2021**, 7, 57	51.1	13
109	Janus face of complement-driven neutrophil activation during sepsis. *Seminars in Immunology*, **2018** , 37, 12-20	10.7	12
108	Forces acting on the anterior meniscotibial ligaments. *Knee Surgery, Sports Traumatology, Arthroscopy*, **2012**, 20, 1488-95	5.5	12
107	Metaphyseal fracture healing in a sheep model of low turnover osteoporosis induced by hypothalamic-pituitary disconnection (HPD). *Journal of Orthopaedic Research*, **2013**, 31, 1851-7	3.8	12
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