Dominique P Pioletti

List of Publications by Citations

175 papers	4,650 citations	37 h-index	61 g-index
194 ext. papers	5,219 ext. citations	4.5 avg, IF	5.39 L-index

#	Paper	IF	Citations
175	Architecture and properties of anisotropic polymer composite scaffolds for bone tissue engineering. *Biomaterials*, **2006**, 27, 905-16	15.6	278
174	Bone regeneration and stem cells. *Journal of Cellular and Molecular Medicine*, **2011**, 15, 718-46	5.6	254
173	Calcium phosphate drug delivery system: influence of local zoledronate release on bone implant osteointegration. *Bone*, **2005**, 36, 52-60	4.7	226
172	Viscoelastic constitutive law in large deformations: application to human knee ligaments and tendons. *Journal of Biomechanics*, **1998**, 31, 753-7	2.9	199
171	Local delivery of bisphosphonate from coated orthopedic implants increases implants mechanical stability in osteoporotic rats. *Journal of Biomedical Materials Research - Part A*, **2006**, 76, 133-43	5.4	134
170	The cytotoxic effect of titanium particles phagocytosed by osteoblasts. *Journal of Biomedical Materials Research Part B*, **1999**, 46, 399-407		119
169	Effect of different Ti-6Al-4V surface treatments on osteoblasts behaviour. *Biomaterials*, **2002**, 23, 1447-54	15.6	113
168	Non-linear viscoelastic laws for soft biological tissues. *European Journal of Mechanics, A/Solids*, **2000**, 19, 749-759	3.7	112
167	The effects of calcium phosphate cement particles on osteoblast functions. *Biomaterials*, **2000**, 21, 1103-14	15.6	110
166	Biocompatibility of bioresorbable poly(L-lactic acid) composite scaffolds obtained by supercritical gas foaming with human fetal bone cells. *Tissue Engineering*, **2005**, 11, 1640-9		99
165	Strain rate effect on the mechanical behavior of the anterior cruciate ligament-bone complex. *Medical Engineering and Physics*, **1999**, 21, 95-100	2.4	96
164	Bioresorbable composites prepared by supercritical fluid foaming. *Journal of Biomedical Materials Research - Part A*, **2005**, 75, 89-97	5.4	81
163	Nanofibrillated cellulose composite hydrogel for the replacement of the nucleus pulposus. *Acta Biomaterialia*, **2011**, 7, 3412-21	10.8	78
162	Implants delivering bisphosphonate locally increase periprosthetic bone density in an osteoporotic sheep model. A pilot study. *European Cells and Materials*, **2008**, 16, 10-6	4.3	78
161	Human fetal bone cells associated with ceramic reinforced PLA scaffolds for tissue engineering. *Bone*, **2008**, 42, 554-64	4.7	69
160	Repair of critical size defects in the rat cranium using ceramic-reinforced PLA scaffolds obtained by supercritical gas foaming. *Journal of Biomedical Materials Research - Part A*, **2007**, 83, 41-51	5.4	69
159	Alignment of collagen fiber in knitted silk scaffold for functional massive rotator cuff repair. *Acta Biomaterialia*, **2017**, 51, 317-329	10.8	67

158	Fetal bone cells for tissue engineering. *Bone*, **2004**, 35, 1323-33	4.7	66
157	The influence of wear particles in the expression of osteoclastogenesis factors by osteoblasts. *Biomaterials*, **2004**, 25, 5803-8	15.6	64
156	On the independence of time and strain effects in the stress relaxation of ligaments and tendons. *Journal of Biomechanics*, **2000**, 33, 1729-32	2.9	58
155	Augmentation of bone defect healing using a new biocomposite scaffold: an in vivo study in sheep. *Acta Biomaterialia*, **2010**, 6, 3755-62	10.8	55
154	Polylactic acid-phosphate glass composite foams as scaffolds for bone tissue engineering. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2007**, 80, 322-31	3.5	54
153	Chronic wound healing by fetal cell therapy may be explained by differential gene profiling observed in fetal versus old skin cells. *Experimental Gerontology*, **2009**, 44, 208-18	4.5	53
152	Gene expression analysis of osteoblastic cells contacted by orthopedic implant particles. *Journal of Biomedical Materials Research Part B*, **2002**, 61, 408-20		47
151	Composite Double-Network Hydrogels To Improve Adhesion on Biological Surfaces. *ACS Applied Materials & Interfaces*, **2018**, 10, 38692-38699	9.5	47
150	Tibial component positioning in total knee arthroplasty: bone coverage and extensor apparatus alignment. *Knee Surgery, Sports Traumatology, Arthroscopy*, **1997**, 5, 251-7	5.5	45
149	Zone-dependent mechanical properties of human articular cartilage obtained by indentation measurements. *Journal of Materials Science: Materials in Medicine*, **2018**, 29, 57	4.5	44
148	Photo-polymerization, swelling and mechanical properties of cellulose fibre reinforced poly(ethylene glycol) hydrogels. *Composites Science and Technology*, **2015**, 119, 93-99	8.6	41
147	Calcium phosphate cement augmentation of cancellous bone screws can compensate for the absence of cortical fixation. *Journal of Biomechanics*, **2010**, 43, 2869-74	2.9	41
146	Anti-Microbial Dendrimers against Multidrug-Resistant P. aeruginosa Enhance the Angiogenic Effect of Biological Burn-wound Bandages. *Scientific Reports*, **2016**, 6, 22020	4.9	40
145	Microstimulation at the bone-implant interface upregulates osteoclast activation pathways. *Bone*, **2008**, 42, 358-64	4.7	39
144	Biomechanical evaluation of intra-articular and extra-articular procedures in anterior cruciate ligament reconstruction: a finite element analysis. *Clinical Biomechanics*, **2007**, 22, 336-43	2.2	39
143	A photopolymerized composite hydrogel and surgical implanting tool for a nucleus pulposus replacement. *Biomaterials*, **2016**, 88, 110-9	15.6	38
142	Controlled release from a mechanically-stimulated thermosensitive self-heating composite hydrogel. *Biomaterials*, **2014**, 35, 450-5	15.6	38
141	How plate positioning impacts the biomechanics of the open wedge tibial osteotomy; a finite element analysis. *Computer Methods in Biomechanics and Biomedical Engineering*, **2005**, 8, 307-13	2.1	38

140	Fatigue as the missing link between bone fragility and fracture. *Nature Biomedical Engineering*, **2018**, 2, 62-71	19	37
139	Importance of the subscapularis muscle after total shoulder arthroplasty. *Clinical Biomechanics*, **2013**, 28, 146-50	2.2	37
138	Comparison of polyethylene wear in anatomical and reversed shoulder prostheses. *Journal of Bone and Joint Surgery: British Volume*, **2009**, 91, 977-82		37
137	Curing kinetics and mechanical properties of a composite hydrogel for the replacement of the nucleus pulposus. *Composites Science and Technology*, **2010**, 70, 1847-1853	8.6	35
136	Consistency and safety of cell banks for research and clinical use: preliminary analysis of fetal skin banks. *Cell Transplantation*, **2007**, 16, 675-84	4	34
135	Whole-cell bioprocessing of human fetal cells for tissue engineering of skin. *Skin Pharmacology and Physiology*, **2009**, 22, 63-73	3	32
134	Combined effect of titanium particles and TNF-alpha on the production of IL-6 by osteoblast-like cells. *Journal of Biomedical Materials Research Part B*, **2000**, 52, 382-7		32
133	In vivo loading increases mechanical properties of scaffold by affecting bone formation and bone resorption rates. *Bone*, **2011**, 49, 1357-64	4.7	30
132	Total shoulder arthroplasty: downward inclination of the glenoid component to balance supraspinatus deficiency. *Journal of Shoulder and Elbow Surgery*, **2009**, 18, 360-5	4.3	30
131	A musculoskeletal shoulder model based on pseudo-inverse and null-space optimization. *Medical Engineering and Physics*, **2010**, 32, 1050-6	2.4	30
130	In vitro characterization of immune-related properties of human fetal bone cells for potential tissue engineering applications. *Tissue Engineering - Part A*, **2009**, 15, 1523-32	3.9	29
129	3D Printing of Polymers with Hierarchical Continuous Porosity. *Advanced Materials Technologies*, **2017**, 2, 1700145	6.8	27
128	The role of energy dissipation of polymeric scaffolds in the mechanobiological modulation of chondrogenic expression. *Biomaterials*, **2014**, 35, 1890-7	15.6	27
127	Biomechanical consequences of humeral component malpositioning after anatomical total shoulder arthroplasty. *Journal of Shoulder and Elbow Surgery*, **2010**, 19, 1184-90	4.3	27
126	3D strain map of axially loaded mouse tibia: a numerical analysis validated by experimental measurements. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 95-100	2.1	27
125	Wound-healing gene family expression differences between fetal and foreskin cells used for bioengineered skin substitutes. *Artificial Organs*, **2008**, 32, 509-18	2.6	27
124	In vivo cyclic loading as a potent stimulatory signal for bone formation inside tissue engineering scaffold. *European Cells and Materials*, **2010**, 19, 41-9	4.3	27
123	In vitro and in vivo investigation of bisphosphonate-loaded hydroxyapatite particles for peri-implant bone augmentation. *Journal of Tissue Engineering and Regenerative Medicine*, **2017**, 11, 1974-1985	4.4	26

122	Effects of glenoid inclination and acromion index on humeral head translation and glenoid articular cartilage strain. *Journal of Shoulder and Elbow Surgery*, **2017**, 26, 157-164	4.3	25
121	Injectable calcium phosphate cement for augmentation around cancellous bone screws. In vivo biomechanical studies. *Journal of Biomechanics*, **2012**, 45, 1156-60	2.9	24
120	Novel micropatterns mechanically control fibrotic reactions at the surface of silicone implants. *Biomaterials*, **2015**, 54, 136-47	15.6	23
119	Activation of AKT-mTOR Signaling Directs Tenogenesis of Mesenchymal Stem Cells. *Stem Cells*, **2018**, 36, 527-539	5.8	23
118	Simultaneous and multisite measure of micromotion, subsidence and gap to evaluate femoral stem stability. *Journal of Biomechanics*, **2012**, 45, 1232-8	2.9	23
117	Combined effects of zoledronate and mechanical stimulation on bone adaptation in an axially loaded mouse tibia. *Clinical Biomechanics*, **2011**, 26, 101-5	2.2	23
116	Plasticity of fetal cartilaginous cells. *Cell Transplantation*, **2010**, 19, 1349-57	4	23
115	Large-scale gene expression analysis of osteoblasts cultured on three different Ti-6Al-4V surface treatments. *Biomaterials*, **2002**, 23, 4193-202	15.6	23
114	Bone tissue engineering using foetal cell therapy. *Swiss Medical Weekly*, **2006**, 136, 557-60	3.1	23
113	Prediction of bone density around orthopedic implants delivering bisphosphonate. *Journal of Biomechanics*, **2009**, 42, 1206-11	2.9	22
112	Effect of micromechanical stimulations on osteoblasts: development of a device simulating the mechanical situation at the bone-implant interface. *Journal of Biomechanics*, **2003**, 36, 131-5	2.9	22
111	Titanium particles inhibit osteoblast adhesion to fibronectin-coated substrates. *Journal of Orthopaedic Research*, **2000**, 18, 203-11	3.8	22
110	Epiphyseal Chondroprogenitors Provide a Stable Cell Source for Cartilage Cell Therapy. *Cell Medicine*, **2012**, 4, 23-32	4.9	21
109	Biphasic constitutive laws for biological interface evolution. *Biomechanics and Modeling in Mechanobiology*, **2003**, 1, 239-49	3.8	21
108	Osteogenesis imperfecta: from diagnosis and multidisciplinary treatment to future perspectives. *Swiss Medical Weekly*, **2016**, 146, w14322	3.1	21
107	Impact of synovial fluid flow on temperature regulation in knee cartilage. *Journal of Biomechanics*, **2015**, 48, 370-4	2.9	20
106	Orthopedic implant used as drug delivery system: clinical situation and state of the research. *Current Drug Delivery*, **2008**, 5, 59-63	3.2	20
105	Improving hydrogelsStoughness by increasing the dissipative properties of their network. *Journal of the Mechanical Behavior of Biomedical Materials*, **2015**, 41, 161-7	4.1	19

104	Does locally delivered Zoledronate influence peri-implant bone formation? - Spatio-temporal monitoring of bone remodeling in vivo. *Biomaterials*, **2014**, 35, 9995-10006	15.6	18
103	Isolation and in vitro chondrogenic potential of human foetal spine cells. *Journal of Cellular and Molecular Medicine*, **2009**, 13, 2559-2569	5.6	18
102	Biologicals and fetal cell therapy for wound and scar management. *ISRN Dermatology*, **2011**, 2011, 549870		18
101	Biomechanics in bone tissue engineering. *Computer Methods in Biomechanics and Biomedical Engineering*, **2010**, 13, 837-46	2.1	17
100	Strategies for improving the repair of focal cartilage defects. *Nanomedicine*, **2015**, 10, 2893-905	5.6	16
99	Intrinsic viscoelasticity increases temperature in knee cartilage under physiological loading. *Journal of the Mechanical Behavior of Biomedical Materials*, **2014**, 30, 123-30	4.1	16
98	In vivo assessment of local effects after application of bone screws delivering bisphosphonates into a compromised cancellous bone site. *Clinical Biomechanics*, **2011**, 26, 1039-43	2.2	16
97	Regulation of proliferation and differentiation of human fetal bone cells. *European Cells and Materials*, **2011**, 21, 46-58	4.3	16
96	Time course of bone screw fixation following a local delivery of Zoledronate in a rat femoral model - a micro-finite element analysis. *Journal of the Mechanical Behavior of Biomedical Materials*, **2015**, 45, 22-31	4.1	15
95	3D strain map of axially loaded mouse tibia: a numerical analysis validated by experimental measurements. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 95-100	2.1	15
94	Peri-implant bone remodeling after total hip replacement combined with systemic alendronate treatment: a finite element analysis. *Computer Methods in Biomechanics and Biomedical Engineering*, **2004**, 7, 73-8	2.1	15
93	Decellularised tissues obtained by a CO-philic detergent and supercritical CO. *European Cells and Materials*, **2018**, 36, 81-95	4.3	15
92	Can the increase of bone mineral density following bisphosphonates treatments be explained by biomechanical considerations?. *Clinical Biomechanics*, **2004**, 19, 170-4	2.2	14
91	Effect of a collar on subsidence and local micromotion of cementless femoral stems: in vitro comparative study based on micro-computerised tomography. *International Orthopaedics*, **2018**, 42, 49-57	3.8	14
90	Variability of the pullout strength of cancellous bone screws with cement augmentation. *Clinical Biomechanics*, **2015**, 30, 500-6	2.2	13
89	Biodegradable HEMA-based hydrogels with enhanced mechanical properties. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2016**, 104, 1161-9	3.5	13
88	A new technique to measure micromotion distribution around a cementless femoral stem. *Journal of Biomechanics*, **2011**, 44, 557-60	2.9	13
87	Mechanical interaction between cells and fluid for bone tissue engineering scaffold: modulation of the interfacial shear stress. *Journal of Biomechanics*, **2010**, 43, 933-7	2.9	13

86	Activities of daily living with reverse prostheses: importance of scapular compensation for functional mobility of the shoulder. *Journal of Shoulder and Elbow Surgery*, **2013**, 22, 948-53	4.3	12
85	Integration of mechanotransduction concepts in bone tissue engineering. *Computer Methods in Biomechanics and Biomedical Engineering*, **2013**, 16, 1050-5	2.1	12
84	Tightening force and torque of nonlocking screws in a reverse shoulder prosthesis. *Clinical Biomechanics*, **2010**, 25, 517-22	2.2	12
83	Human muscular fetal cells: a potential cell source for muscular therapies. *Pediatric Surgery International*, **2008**, 24, 37-47	2.1	12
82	Cyclic loading of a cellulose/hydrogel composite increases its fracture strength. *Extreme Mechanics Letters*, **2018**, 24, 66-74	3.9	12
81	Ectopic tissue engineered ligament with silk collagen scaffold for ACL regeneration: A preliminary study. *Acta Biomaterialia*, **2017**, 53, 307-317	10.8	11
80	Comparison of an EMG-based and a stress-based method to predict shoulder muscle forces. *Computer Methods in Biomechanics and Biomedical Engineering*, **2015**, 18, 1272-9	2.1	11
79	Full-field measurement of micromotion around a cementless femoral stem using micro-CT imaging and radiopaque markers. *Journal of Biomechanics*, **2016**, 49, 4002-4008	2.9	11
78	Importance of polyethylene thickness in total shoulder arthroplasty: a finite element analysis. *Clinical Biomechanics*, **2012**, 27, 443-8	2.2	11
77	Knitted Silk-Collagen Scaffold Incorporated with Ligament Stem/Progenitor Cells Sheet for Anterior Cruciate Ligament Reconstruction and Osteoarthritis Prevention. *ACS Biomaterials Science and Engineering*, **2019**, 5, 5412-5421	5.5	10
76	A patient-specific model of total knee arthroplasty to estimate patellar strain: A case study. *Clinical Biomechanics*, **2016**, 32, 212-9	2.2	10
75	The effect of bisphosphonates and titanium particles on osteoblasts: an in vitro study. *Journal of Bone and Joint Surgery: British Volume*, **2005**, 87, 1157-63		10
74	Experimental and mathematical methods for representing relative surface elongation of the ACL. *Journal of Biomechanics*, **1995**, 28, 1123-6	2.9	10
73	Efficient decellularization of equine tendon with preserved biomechanical properties and cytocompatibility for human tendon surgery indications. *Artificial Organs*, **2020**, 44, E161-E171	2.6	10
72	Effect of partial-thickness tear on loading capacities of the supraspinatus tendon: a finite element analysis. *Computer Methods in Biomechanics and Biomedical Engineering*, **2016**, 19, 875-82	2.1	9
71	Hybrid granular hydrogels: combining composites and microgels for extended ranges of material properties. *Soft Matter*, **2020**, 16, 3769-3778	3.6	9
70	Synthesis and Photopolymerization of Tween 20 Methacrylate/N-vinyl-2-Pyrrolidone Blends. *Materials Science and Engineering C*, **2012**, 32, 2235-2241	8.3	9
69	Prediction of spatio-temporal bone formation in scaffold by diffusion equation. *Biomaterials*, **2011**, 32, 7006-12	15.6	9

68	Human fetal bone cells in delivery systems for bone engineering. *Journal of Tissue Engineering and Regenerative Medicine*, **2011**, 5, 806-14	4.4	9
67	Tailoring swelling to control softening mechanisms during cyclic loading of PEG/cellulose hydrogel composites. *Composites Science and Technology*, **2018**, 168, 88-95	8.6	9
66	Development of an Effective Cell Seeding Technique: Simulation, Implementation, and Analysis of Contributing Factors. *Tissue Engineering - Part C: Methods*, **2017**, 23, 485-496	2.9	8
65	Mechanical evaluation of a tissue-engineered zone of calcification in a bone-hydrogel osteochondral construct. *Computer Methods in Biomechanics and Biomedical Engineering*, **2015**, 18, 332-7	2.1	8
64	Photopolymerizable hydrogels for implants: Monte-Carlo modeling and experimental in vitro validation. *Journal of Biomedical Optics*, **2014**, 19, 35004	3.5	8
63	Biomechanical evaluation of porous biodegradable scaffolds for revision knee arthroplasty. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 333-9	2.1	8
62	Targeted mechanical properties for optimal fluid motion inside artificial bone substitutes. *Journal of Orthopaedic Research*, **2009**, 27, 1082-7	3.8	8
61	Thoughts on cartilage tissue engineering: A 21st century perspective. *Current Research in Translational Medicine*, **2021**, 69, 103299	3.7	8
60	Identification of elastic properties of human patellae using micro-finite element analysis. *Journal of Biomechanics*, **2016**, 49, 3111-3115	2.9	8
59	Stability Enhancement Using Hyaluronic Acid Gels for Delivery of Human Fetal Progenitor Tenocytes. *Cell Medicine*, **2016**, 8, 87-97	4.9	7
58	Miniature probe for the delivery and monitoring of a photopolymerizable material. *Journal of Biomedical Optics*, **2015**, 20, 127001	3.5	7
57	Orthopaedic Implant as Drug Delivery System: a Numerical Approach. *Computer Methods in Biomechanics and Biomedical Engineering*, **2001**, 4, 505-513	2.1	7
56	Biomechanics and tissue engineering. *Osteoporosis International*, **2011**, 22, 2027-31	5.3	6
55	Effect of temporal onsets of mechanical loading on bone formation inside a tissue engineering scaffold combined with cell therapy. *Bone Reports*, **2018**, 8, 173-179	2.6	5
54	A simulation framework for humeral head translations. *Medical Engineering and Physics*, **2017**, 49, 140-147	2.4	5
53	Human Bone Progenitor Cells for Clinical Application: What Kind of Immune Reaction Does Fetal Xenograft Tissue Trigger in Immunocompetent Rats?. *Cell Transplantation*, **2017**, 26, 879-890	4	5
52	Glenoid bone strain after anatomical total shoulder arthroplasty: In vitro measurements with micro-CT and digital volume correlation. *Medical Engineering and Physics*, **2020**, 85, 48-54	2.4	5
51	An Intrinsically-Adhesive Family of Injectable and Photo-Curable Hydrogels with Functional Physicochemical Performance for Regenerative Medicine. *Macromolecular Rapid Communications*, **2021**, 42, e2000660	4.8	5

50	Experimental method to characterize the strain dependent permeability of tissue engineering scaffolds. *Journal of Biomechanics*, **2016**, 49, 3749-3752	2.9	5
49	Light-Activated, Bioadhesive, Poly(2-hydroxyethyl methacrylate) Brush Coatings. *Biomacromolecules*, **2020**, 21, 240-249	6.9	5
48	Implementation of Photopolymerizable Hydrogels as a Potential Treatment of Intracranial Aneurysms. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 261	5.8	5
47	Control of Dissipation Sources: A Central Aspect for Enhancing the Mechanical and Mechanobiological Performances of Hydrogels. *ACS Applied Materials & Interfaces*, **2019**, 11, 39662-39671	9.5	4
46	Impact of partial-thickness tears on supraspinatus tendon strain based on a finite element analysis. *Computer Methods in Biomechanics and Biomedical Engineering*, **2014**, 17 Suppl 1, 118-9	2.1	4
45	Damping properties of the nucleus pulposus. *Clinical Biomechanics*, **2012**, 27, 861-5	2.2	4
44	Cartilage self-heating contributes to chondrogenic expression26, 171-178		4
43	Micromotion-induced peri-prosthetic fluid flow around a cementless femoral stem. *Computer Methods in Biomechanics and Biomedical Engineering*, **2017**, 20, 730-736	2.1	3
42	Viscohyperelastic Strain Energy Function **2017**, 59-78		3
41	Capillary-valve-based platform towards cell-on-chip mechanotransduction assays. *Sensors and Actuators B: Chemical*, **2013**, 188, 1019-1025	8.5	3
40	A flow sensing model for mesenchymal stromal cells using morphogen dynamics. *Biophysical Journal*, **2013**, 104, 2132-6	2.9	3
39	Non-setting, injectable biomaterials containing particulate hydroxyapatite can increase primary stability of bone screws in cancellous bone. *Clinical Biomechanics*, **2018**, 59, 174-180	2.2	3
38	Importance of trabecular anisotropy in finite element predictions of patellar strain after Total Knee Arthroplasty. *Medical Engineering and Physics*, **2017**, 39, 102-105	2.4	2
37	Multi-scale modeling of photopolymerization for medical hydrogel-implant design **2013**,		2
36	Shoulder muscle forces during abduction with subscapularis deficiency after total shoulder arthroplasty. *Computer Methods in Biomechanics and Biomedical Engineering*, **2011**, 14, 19-20	2.1	2
35	Strain distribution in mice tibia under axial loading. Numerical and experimental models. *Computer Methods in Biomechanics and Biomedical Engineering*, **2007**, 10, 89-90	2.1	2
34	Muscle co-contraction in an upper limb musculoskeletal model: EMG-assisted vs. standard load-sharing. *Computer Methods in Biomechanics and Biomedical Engineering*, **2021**, 24, 137-150	2.1	2
33	Feasibility of an alternative method to estimate glenohumeral joint center from videogrammetry measurements and CT/MRI of patients. *Computer Methods in Biomechanics and Biomedical Engineering*, **2021**, 24, 33-42	2.1	2

32	Pulsatile Flow-Induced Fatigue-Resistant Photopolymerizable Hydrogels for the Treatment of Intracranial Aneurysms. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 619858	5.8	2
31	The cytotoxic effect of titanium particles phagocytosed by osteoblasts **1999**, 46, 399		2
30	Distribution of gap and micromotion during compressive loading around a cementless femoral stem. *Computer Methods in Biomechanics and Biomedical Engineering*, **2015**, 18 Suppl 1, 1896-7	2.1	1
29	Translation of biomechanical concepts in bone tissue engineering: from animal study to revision knee arthroplasty. *Computer Methods in Biomechanics and Biomedical Engineering*, **2014**, 17, 845-52	2.1	1
28	Surgical preparation of bone-scaffold interface is critical for bone regeneration inside tissue engineering scaffold. *Journal of Orthopaedic Research*, **2011**, 29, 767-72	3.8	1
27	Reverse shoulder arthroplasty: polyethylene wear. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 247-248	2.1	1
26	Biomechanical considerations can serve as design rules in the development of bone tissue engineering scaffold. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 17-18	2.1	1
25	Osteoclastogenesis can be mechanically-induced in the peri-implant bone. *Irbm*, **2009**, 30, 10-13	4.8	1
24	Dynamical biomechanical model of the shoulder: Null space based optimization of the overactuated system. **2009**,		1
23	Intrinsic coordinate system for the tibial plateau. *Knee*, **1998**, 5, 95-98	2.6	1
22	Viscoelastic Constitutive Law Based on the Time Scale of the Mechanical Phenomena **2006**, 399-404		1
21	An Off-the-Shelf Tissue Engineered Cartilage Composed of Optimally Sized Pellets of Cartilage Progenitor/Stem Cells. *ACS Biomaterials Science and Engineering*, **2021**, 7, 881-892	5.5	1
20	Silk granular hydrogels self-reinforced with regenerated silk fibroin fibers. *Soft Matter*, **2021**, 17, 7038-7046	3.4	1
19	Development of Standardized Fetal Progenitor Cell Therapy for Cartilage Regenerative Medicine: Industrial Transposition and Preliminary Safety in Xenogeneic Transplantation. *Biomolecules*, **2021**, 11,	5.9	1
18	Bone tissue engineering using foetal cell therapy. *Swiss Medical Weekly*, **2007**, 137 Suppl 155, 86S-89S	3.1	1
17	Patellar bone strain after total knee arthroplasty is correlated with bone mineral density and body mass index. *Medical Engineering and Physics*, **2019**, 68, 17-24	2.4	0
16	Photopolymerization device for minimally invasive implants: application to nucleus pulposus replacement. *IFMBE Proceedings*, **2015**, 1333-1337	0.2	
15	A model for micromotion-induced fluid flow at the bone-implant interface. *Computer Methods in Biomechanics and Biomedical Engineering*, **2014**, 17 Suppl 1, 52-3	2.1	

List of Publications

14	Response to letter to the editor: comment on "injectable calcium phosphate cement for augmentation around cancellous bone screws. In vivo biomechanical studies" (volume 45, issue 7, pages 1156-1160). *Journal of Biomechanics*, **2013**, 46, 634-5	2.9
13	Effect of a pathological scapular tilt after total shoulder arthroplasty. *Computer Methods in Biomechanics and Biomedical Engineering*, **2013**, 16, 1196-201	2.1
12	Prediction of polyethylene wear after total knee replacement. *Computer Methods in Biomechanics and Biomedical Engineering*, **2010**, 13, 139-140	2.1
11	Reverse shoulder arthroplasty: compression screw force. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 243-244	2.1
10	Model to optimise the amount of drug on an implant used as drug delivery system. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 233-234	2.1
9	Total knee arthroplasty: posterior tilt of tibial tray. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 245-246	2.1
8	Viscoelastic assessment of skin quality for clinical applications. *Computer Methods in Biomechanics and Biomedical Engineering*, **2011**, 14, 235-236	2.1
7	A method to measure glenoid wear in 3D. *Computer Methods in Biomechanics and Biomedical Engineering*, **2012**, 15 Suppl 1, 343-4	2.1
6	Measuring micromotion around a loaded hip stem using CT imaging. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 129-130	2.1
5	Using drug delivery systems to enhance joint replacement **2008**, 397-406	
4	Tissue Engineering of Tendons **2008**, 2871-2875	
3	Activation pathways of osteoclasts are up-regulated by micromotions at the bone-implant interface. *Computer Methods in Biomechanics and Biomedical Engineering*, **2007**, 10, 93-94	2.1
2	Déplacements de la Tubérosité Tibiale: Effets Des Paramètres Chirurgicaux. *Archives of Physiology and Biochemistry*, **1995**, 103, C56-C57	2.2
1	A Matlab toolbox for scaled-generic modeling of shoulder and elbow. *Scientific Reports*, **2021**, 11, 20806	4.9