Markus A Wimmer

List of Publications by Citations

145 papers	3,502 citations	34 h-index	54 g-index
163 ext. papers	3,949 ext. citations	3.5 avg, IF	5.45 L-index

#	Paper	IF	Citations
145	Knee joint loading differs in individuals with mild compared with moderate medial knee osteoarthritis. *Arthritis and Rheumatism*, **2006**, 54, 3842-9		208
144	Relationship between pain and medial knee joint loading in mild radiographic knee osteoarthritis. *Arthritis and Rheumatism*, **2007**, 57, 1254-60		147
143	Preoperative gait adaptations persist one year after surgery in clinically well-functioning total hip replacement patients. *Journal of Biomechanics*, **2007**, 40, 3432-7	2.9	133
142	Surface motion upregulates superficial zone protein and hyaluronan production in chondrocyte-seeded three-dimensional scaffolds. *Tissue Engineering*, **2005**, 11, 249-56		118
141	Stability of cp-Ti and Ti-6Al-4V alloy for dental implants as a function of saliva pH - an electrochemical study. *Clinical Oral Implants Research*, **2012**, 23, 1055-62	4.8	105
140	CoCrMo metal-on-metal hip replacements. *Physical Chemistry Chemical Physics*, **2013**, 15, 746-56	3.6	101
139	Wear mechanisms in metal-on-metal bearings: the importance of tribochemical reaction layers. *Journal of Orthopaedic Research*, **2010**, 28, 436-43	3.8	100
138	Tribology approach to the engineering and study of articular cartilage. *Tissue Engineering*, **2004**, 10, 1436-45		88
137	Tractive forces during rolling motion of the knee: implications for wear in total knee replacement. *Journal of Biomechanics*, **1997**, 30, 131-7	2.9	83
136	Metallic Implants: Atomic Scale Origin of Metal Ion Release from Hip Implant Taper Junctions (Adv. Sci. 5/2020). *Advanced Science*, **2020**, 7, 2070027	13.6	78
135	Effects of simple and complex motion patterns on gene expression of chondrocytes seeded in 3D scaffolds. *Tissue Engineering*, **2006**, 12, 3171-9		72
134	Biceps activity during windmill softball pitching: injury implications and comparison with overhand throwing. *American Journal of Sports Medicine*, **2009**, 37, 558-65	6.8	68
133	The Relationship Between Pitching Mechanics and Injury: A Review of Current Concepts. *Sports Health*, **2017**, 9, 216-221	4.7	67
132	New insights into wear and biological effects of metal-on-metal bearings. *Journal of Bone and Joint Surgery - Series A*, **2011**, 93 Suppl 2, 76-83	5.6	66
131	A case of disassociation of a modular femoral neck trunion after total hip arthroplasty. *Journal of Arthroplasty*, **2006**, 21, 918-21	4.4	66
130	Polyethylene and metal wear particles: characteristics and biological effects. *Seminars in Immunopathology*, **2011**, 33, 257-71	12	64
129	Influence of pH on the tribocorrosion behavior of CpTi in the oral environment: synergistic interactions of wear and corrosion. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2012**, 100, 1662-71	3.5	62

128	What is the role of lipopolysaccharide on the tribocorrosive behavior of titanium?. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 8, 71-85	4.1	61
127	Postoperative restoration of upper extremity motion and neuromuscular control during the overhand pitch: evaluation of tenodesis and repair for superior labral anterior-posterior tears. *American Journal of Sports Medicine*, **2014**, 42, 2825-36	6.8	61
126	The tribological difference between biomedical steels and CoCrMo-alloys. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 9, 50-62	4.1	60
125	Effects of common footwear on joint loading in osteoarthritis of the knee. *Arthritis Care and Research*, **2010**, 62, 917-23	4.7	57
124	Contralateral hip and knee gait biomechanics are unchanged by total hip replacement for unilateral hip osteoarthritis. *Gait and Posture*, **2012**, 35, 61-5	2.6	53
123	Wear-corrosion synergism in a CoCrMo hip bearing alloy is influenced by proteins. *Clinical Orthopaedics and Related Research*, **2012**, 470, 3109-17	2.2	53
122	Chondrocyte gene expression under applied surface motion. *Biorheology*, **2006**, 43, 259-69	1.7	50
121	Time course and extent of functional recovery during the first postoperative year after minimally invasive total hip arthroplasty with two different surgical approaches--a randomized controlled trial. *Journal of Biomechanics*, **2011**, 44, 372-8	2.9	47
120	A striated pattern of wear in ultrahigh-molecular-weight polyethylene components of Miller-Galante total knee arthroplasty. *Journal of Arthroplasty*, **1998**, 13, 8-16	4.4	45
119	Sagittal plane hip motion reversals during walking are associated with disease severity and poorer function in subjects with hip osteoarthritis. *Journal of Biomechanics*, **2012**, 45, 1360-5	2.9	44
118	Predictors of throwing velocity in youth and adolescent pitchers. *Journal of Shoulder and Elbow Surgery*, **2015**, 24, 1339-45	4.3	39
117	From normal to fast walking: Impact of cadence and stride length on lower extremity joint moments. *Gait and Posture*, **2016**, 46, 118-25	2.6	39
116	Relative importance of gait vs. joint positioning on hip contact forces after total hip replacement. *Journal of Orthopaedic Research*, **2009**, 27, 1576-82	3.8	38
115	How have alternative bearings and modularity affected revision rates in total hip arthroplasty?. *Clinical Orthopaedics and Related Research*, **2014**, 472, 3747-58	2.2	36
114	Effect of impaction sequence on osteochondral graft damage: the role of repeated and varying loads. *American Journal of Sports Medicine*, **2010**, 38, 105-13	6.8	36
113	Human genome-wide expression analysis reorients the study of inflammatory mediators and biomechanics in osteoarthritis. *Osteoarthritis and Cartilage*, **2015**, 23, 1939-45	6.2	34
112	Asymmetric loading and bone mineral density at the asymptomatic knees of patients with unilateral hip osteoarthritis. *Arthritis and Rheumatism*, **2011**, 63, 3853-8		34
111	Protective effect of P188 in the model of acute trauma to human ankle cartilage: the mechanism of action. *Journal of Orthopaedic Trauma*, **2010**, 24, 571-6	3.1	33

110	Do gait adaptations during stair climbing result in changes in implant forces in subjects with total hip replacements compared to normal subjects?. *Clinical Biomechanics*, **2008**, 23, 754-61	2.2	33
109	Impaction affects cell viability in osteochondral tissues during transplantation. *Journal of Knee Surgery*, **2007**, 20, 105-10	2.4	32
108	Disentangled State in Polymer Melts; a Route to Ultimate Physical and Mechanical Properties. *Macromolecular Materials and Engineering*, **2003**, 288, 964-970	3.9	32
107	Direct comparison of measured and calculated total knee replacement force envelopes during walking in the presence of normal and abnormal gait patterns. *Journal of Biomechanics*, **2012**, 45, 990-6	2.9	31
106	Kinematic evaluation of cruciate-retaining total knee replacement patients during level walking: a comparison with the displacement-controlled ISO standard. *Journal of Biomechanics*, **2009**, 42, 2363-8	2.9	30
105	Improvement in knee loading after use of specialized footwear for knee osteoarthritis: results of a six-month pilot investigation. *Arthritis and Rheumatism*, **2013**, 65, 1282-9		29
104	Electrochemical behavior of titanium in artificial saliva: influence of pH. *Journal of Oral Implantology*, **2014**, 40, 3-10	1.2	28
103	Fretting-corrosion behavior in hip implant modular junctions: The influence of friction energy and pH variation. *Journal of the Mechanical Behavior of Biomedical Materials*, **2016**, 62, 570-587	4.1	26
102	Key Pathways to Prevent Posttraumatic Arthritis for Future Molecule-Based Therapy. *Cartilage*, **2013**, 4, 13S-21S	3	26
101	The relationship of vibratory perception to dynamic joint loading, radiographic severity, and pain in knee osteoarthritis. *Arthritis and Rheumatism*, **2012**, 64, 181-6		24
100	Clinical performance of contemporary tibial polyethylene components. *Journal of Arthroplasty*, **2006**, 21, 754-61	4.4	24
99	Surface damage versus tibial polyethylene insert conformity: a retrieval study. *Clinical Orthopaedics and Related Research*, **2012**, 470, 1814-25	2.2	23
98	Short-term microvascular response of striated muscle to cp-Ti, Ti-6Al-4V, and Ti-6Al-7Nb. *Journal of Orthopaedic Research*, **2006**, 24, 531-40	3.8	23
97	The influence of slip velocity on wear of total knee arthroplasty. *Wear*, **2005**, 259, 926-932	3.5	21
96	The effect of sliding velocity on chondrocytes activity in 3D scaffolds. *Journal of Biomechanics*, **2009** , 42, 424-9	2.9	20
95	How Does Wear Rate Compare in Well-functioning Total Hip and Knee Replacements? A Postmortem Polyethylene Liner Study. *Clinical Orthopaedics and Related Research*, **2016**, 474, 1867-75	2.2	19
94	Differences in preferred walking speeds in a gait laboratory compared with the real world after total hip replacement. *Archives of Physical Medicine and Rehabilitation*, **2010**, 91, 1390-5	2.8	19
93	Differences in wear between load and displacement control tested total knee replacements. *Wear*, **2009**, 267, 757-762	3.5	19

92	A parametric approach to numerical modeling of TKR contact forces. *Journal of Biomechanics*, **2009**, 42, 541-5	2.9	18
91	The champagne toast position isolates the supraspinatus better than the Jobe test: an electromyographic study of shoulder physical examination tests. *Journal of Shoulder and Elbow Surgery*, **2016**, 25, 322-9	4.3	17
90	Peculiarities in Ankle Cartilage. *Cartilage*, **2017**, 8, 12-18	3	16
89	Prediction of Polyethylene Wear Rates from Gait Biomechanics and Implant Positioning in Total Hip Replacement. *Clinical Orthopaedics and Related Research*, **2017**, 475, 2027-2042	2.2	16
88	Fine tuning total knee replacement contact force prediction algorithms using blinded model validation. *Journal of Biomechanical Engineering*, **2013**, 135, 021015	2.1	16
87	In vitro simulation of fretting-corrosion in hip implant modular junctions: The influence of pH. *Medical Engineering and Physics*, **2018**, 52, 1-9	2.4	15
86	Influence of corrosion on lipopolysaccharide affinity for two different titanium materials. *Journal of Prosthetic Dentistry*, **2013**, 110, 462-70	4	15
85	Knee Flexion and Daily Activities in Patients following Total Knee Replacement: A Comparison with ISO Standard 14243. *BioMed Research International*, **2015**, 2015, 157541	3	15
84	Glenohumeral Function of the Long Head of the Biceps Muscle: An Electromyographic Analysis. *Orthopaedic Journal of Sports Medicine*, **2014**, 2, 2325967114523902	3.5	15
83	Development of a Cartilage Shear-Damage Model to Investigate the Impact of Surface Injury on Chondrocytes and Extracellular Matrix Wear. *Cartilage*, **2017**, 8, 444-455	3	14
82	Finite element evaluation of the newest ISO testing standard for polyethylene total knee replacement liners. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2018**, 232, 545-552	1.7	14
81	ESTABLISHING A LIVE CARTILAGE-ON-CARTILAGE INTERFACE FOR TRIBOLOGICAL TESTING. *Biotribology*, **2017**, 9, 1-11	2.3	13
80	Effect of tribolayer formation on corrosion of CoCrMo alloys investigated using scanning electrochemical microscopy. *Analytical Chemistry*, **2013**, 85, 7159-66	7.8	13
79	Relationship of surface damage appearance and volumetric wear in retrieved TKR polyethylene liners. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2017**, 105, 2053-2059	3.5	13
78	Spinal kinematics and facet load transmission after total disc replacement. *Spine*, **2010**, 35, E1160-6	3.3	13
77	Comparison of Antagonist Muscle Activity During Walking Between Total Knee Replacement and Control Subjects Using Unnormalized Electromyography. *Journal of Arthroplasty*, **2016**, 31, 1331-1339	4.4	12
76	Wear Characteristics of Conventional Ultrahigh-Molecular-Weight Polyethylene Versus Highly Cross-Linked Polyethylene in Total Ankle Arthroplasty. *Foot and Ankle International*, **2018**, 39, 1335-1344	3.3	12
75	TKA patients with unsatisfying knee function show changes in neuromotor synergy pattern but not joint biomechanics. *Journal of Electromyography and Kinesiology*, **2017**, 37, 90-100	2.5	11

74	The effect of bacterial contamination on friction and wear in metal/polyethylene bearings for total joint repair: A case report. *Wear*, **2013**, 301, 264-270	3.5	11
73	The Feasibility of Using Augmented Auditory Feedback From a Pressure Detecting Insole to Reduce the Knee Adduction Moment: A Proof of Concept Study. *Journal of Biomechanical Engineering*, **2016**, 138, 021014	2.1	11
72	Can a linear combination of gait principal component vectors identify hip OA stages?. *Journal of Biomechanics*, **2016**, 49, 2023-2030	2.9	11
71	Gait asymmetries in unilateral symptomatic hip osteoarthritis and their association with radiographic severity and pain. *HIP International*, **2019**, 29, 209-214	1.7	10
70	Damage due to rolling in total knee replacement: The influence of tractive force. *Friction*, **2013**, 1, 178-185	5.6	10
69	Microvasculatory reaction of skeletal muscle to Ti-15Mo in comparison to well-established titanium alloys. *Journal of Materials Science: Materials in Medicine*, **2007**, 18, 2053-60	4.5	10
68	Hamstring Activity in the Anterior Cruciate Ligament Injured Patient: Injury Implications and Comparison With Quadriceps Activity. *Arthroscopy - Journal of Arthroscopic and Related Surgery*, **2016**, 32, 1651-9	5.4	10
67	Rare earth stearates for wear determination of UHMWPE bearings. *Wear*, **2009**, 267, 679-682	3.5	9
66	Comparison of ISO standard and TKR patient axial force profiles during the stance phase of gait. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2012**, 226, 227-34	1.7	9
65	Determination of the temperature rise within UHMWPE tibial components during tribological loading. *Acta Biomaterialia*, **2010**, 6, 552-62	10.8	9
64	Microstructure of Retrievals Made from Standard Cast HC-CoCrMo Alloys **2013**, 251-267		9
63	Design of a tribocorrosion bioreactor for the analysis of immune cell response to in situ generated wear products. *Journal of Long-Term Effects of Medical Implants*, **2014**, 24, 65-76	0.2	9
62	A reduction in the knee adduction moment with medial thrust gait is associated with a medial shift in center of plantar pressure. *Medical Engineering and Physics*, **2016**, 38, 615-621	2.4	9
61	Electrochemically induced tribolayer with molybdenum for hip implants: Tribocorrosion and biocompatibility study. *Thin Solid Films*, **2017**, 644, 82-91	2.2	8
60	The choice of the femoral center of rotation affects material loss in total knee replacement wear testing - A parametric finite element study of ISO 14243-3. *Journal of Biomechanics*, **2019**, 88, 104-112	2.9	8
59	Tribochemical Reactions in Metal-on-Metal Hip Joints Influence Wear and Corrosion **2013**, 292-309		8
58	Expanding instrumented gait testing in the community setting: A portable, depth-sensing camera captures joint motion in older adults. *PLoS ONE*, **2019**, 14, e0215995	3.7	7
57	Atomic Scale Origin of Metal Ion Release from Hip Implant Taper Junctions. *Advanced Science*, **2020**, 7, 1903008	13.6	7

56	Level and Downhill Walking to Assess Implant Functionality in Bicruciate- and Posterior Cruciate-Retaining Total Knee Arthroplasty. *Journal of Arthroplasty*, **2018**, 33, 2884-2889	4.4	7
55	Towards the understanding of lubrication mechanisms in total knee replacements Part I: Experimental investigations. *Tribology International*, **2021**, 156, 106874	4.9	7
54	Phospholipid Vesicles in Media for Tribological Studies against Live Cartilage. *Lubricants*, **2018**, 6,	3.1	7
53	Influence of molybdate ion and pH on the fretting corrosion of a CoCrMo Titanium alloy couple. *Biotribology*, **2017**, 11, 20-28	2.3	6
52	Are Instrumented Knee Forces Representative of a Larger Population of Cruciate-Retaining Total Knee Arthroplasties?. *Journal of Arthroplasty*, **2017**, 32, 2268-2273	4.4	6
51	Unsupervised gait retraining using a wireless pressure-detecting shoe insole. *Gait and Posture*, **2019**, 70, 408-413	2.6	6
50	Joint line elevation and tibial slope are associated with increased polyethylene wear in cruciate-retaining total knee replacement. *Journal of Orthopaedic Research*, **2020**, 38, 1596-1606	3.8	6
49	Nanoscale insight into the degradation mechanisms of the cartilage articulating surface preceding OA. *Biomaterials Science*, **2020**, 8, 3944-3955	7.4	6
48	An autonomous mathematical reconstruction to effectively measure volume loss on retrieved polyethylene tibial inserts. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2013**, 101, 449-57	3.5	6
47	Fretting-corrosion in hip taper modular junctions: The influence of topography and pH levels - An in-vitro study. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 118, 104443	4.1	6
46	Towards the understanding of lubrication mechanisms in total knee replacements Part II: Numerical modeling. *Tribology International*, **2021**, 156, 106809	4.9	6
45	Albumin Protein Cleavage Affects the Wear and Friction of Ultra-High Molecular Weight Polyethylene. *Lubricants*, **2017**, 5,	3.1	5
44	Variability of TKR knee kinematics and relationship with gait kinetics: implications for total knee wear. *BioMed Research International*, **2015**, 2015, 284513	3	5
43	Methods for locating the tibio-femoral contact pathway in total knee replacements using marker-based gait analysis and standard radiography. *Iowa orthopaedic journal, The*, **2014**, 34, 94-101	1.1	5
42	Articulation of an alumina-zirconia composite ceramic against living cartilage - An in vitro wear test. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 103, 103531	4.1	5
41	Implementation of a markerless motion analysis method to quantify hyperkinesis in males with fragile X syndrome. *Gait and Posture*, **2014**, 39, 827-30	2.6	4
40	Analyzing pin-on-ball wear tests by means of the GreenwoodWilliamson contact model. *Wear*, **2013**, 301, 4-10	3.5	4
39	Does hip implant positioning affect the peak external adduction moments of the healthy knees of subjects with total hip replacements?. *Journal of Orthopaedic Research*, **2013**, 31, 1187-94	3.8	4

38	Tribology Approach to the Engineering and Study of Articular Cartilage. *Tissue Engineering*, **2004**, 10, 1436-1445		4
37	On the Growth Rate of Tribomaterial in Bovine Serum Lubricated Sliding Contacts. *Lubricants*, **2016**, 4, 21	3.1	4
36	Implications of trauma and subsequent articulation on the release of Proteoglycan-4 and tissue response in adult human ankle cartilage. *Journal of Orthopaedic Research*, **2017**, 35, 667-676	3.8	3
35	Investigation of CoCrMo material loss in a novel bio-tribometer designed to study direct cell reaction to wear and corrosion products. *Biotribology*, **2019**, 18,	2.3	3
34	Backside wear of tibial polyethylene components is affected by gait pattern: A knee simulator study using rare earth tracer technology. *Journal of Orthopaedic Research*, **2020**, 38, 1607-1616	3.8	3
33	Competitive Binding of Bilirubin and Fatty Acid on Serum Albumin Affects Wear of UHMWPE. *Lubricants*, **2020**, 8,	3.1	3
32	The Effect of Surgical Insertion and Proinflammatory Cytokines on Osteochondral Allograft Survival and Metabolism. *Cartilage*, **2018**, 9, 284-292	3	3
31	Osteochondral Tissue Cell Viability Is Affected by Total Impulse during Impaction Grafting. *Cartilage*, **2010**, 1, 270-5	3	3
30	Effect of europium(II) stearate on the mechanical properties and the oxidation resistance of UHMWPE. *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 821-6	4.1	3
29	Grand Challenge Competition: A Parametric Numerical Model to Predict In Vivo Medial and Lateral Knee Forces in Walking Gaits **2012**,		3
28	Analysis of the Tibio-Femoral Contact Point in Total Knee Replacement Using a Marker Based Motion Analysis System **2007**, 39		3
27	Computational Parametric Studies for Preclinical Evaluation of Total Knee Replacements. *Lecture Notes in Computational Vision and Biomechanics*, **2020**, 60-85	0.3	3
26	Analysis of Friction in Total Knee Prosthesis during a Standard Gait Cycle. *Lubricants*, **2021**, 9, 36	3.1	3
25	Wear Scar Similarities between Retrieved and Simulator-Tested Polyethylene TKR Components: An Artificial Neural Network Approach. *BioMed Research International*, **2016**, 2016, 2071945	3	3
24	Corrosion resistance of the nickel-free high-nitrogen steel FeCrMnMoN0.9 under simulated inflammatory conditions. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2021**, 109, 902-910	3.5	3
23	Sensitivity of total knee replacement wear to variability in motion and load input: A parametric finite element analysis study. *Journal of Orthopaedic Research*, **2020**, 38, 1538-1549	3.8	2
22	Characterizing the Surface Topography of Viable Cartilage Explants: A Novel Application of the Scanning White Light Interferometer **2008**,		2
21	SMART Biosensor for Early Diagnostic Detection of Metal Ion Release in Orthopedic Patients: Initial Outcome. *Journal of Bio- and Tribo-Corrosion*, **2018**, 4, 1	2.9	2

20	What Do the Retrievals Really Tell Us? **2014**, 173-193		2
19	Can a gait-dependent model predict wear on retrieved total knee arthroplasty components?. *Bone and Joint Journal*, **2020**, 102-B, 129-137	5.6	1
18	Metal-on-Metal: Ion Levels as an Intervention Strategy. *Seminars in Arthroplasty*, **2012**, 23, 283-285	0.4	1
17	The Effect of the Tibiofemoral Contact Path Centroid Location on TKR Contact Forces **2010**,		1
16	Comparison of Numerically Modeled Knee Joint Contact Forces to Instrumented Total Knee Prosthesis Forces **2009**,		1
15	The Influence of Sliding Velocity on Wear of Total Knee Arthroplasties **2004**, 245		1
14	Europium as a Candidate Staining Material to Determine Polyethylene Wear **2006**,		1
13	Tribocorrosion in Hip Modular Taper Junctions: Load-Triggered Transitions in Electrochemical and Mechanical Behavior **2015**, 283-302		1
12	The mechanism-based approach of understanding run-in and steady state: A gross-slip fretting experiment to fathom tribocorrosion of total hip taper junctions. *Biotribology*, **2021**, 25, 100165	2.3	1
11	Transient stiffening of cartilage during joint articulation: A microindentation study. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 113, 104113	4.1	1
10	The Association of an Alpha-2 Adrenergic Receptor Agonist and Mortality in Patients With COVID-19.. *Frontiers in Medicine*, **2021**, 8, 797647	4.9	0
9	Microindentation of cartilage before and after articular loading in a bioreactor: assessment of length-scale dependency using two analysis methods.. *Experimental Mechanics*, **2021**, 61, 1069-1080	2.6	0
8	Poly-EtherEtherKetone (PEEK) **2015**, 223-257		
7	Computational Framework for Determining Patient-Specific Total Knee Arthroplasty Loading. *Journal of Medical Devices, Transactions of the ASME*, **2013**, 7, 0409041-409041	1.3	
6	Wear measurement of highly cross-linked UHMWPE using a 7Be tracer implantation technique. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2013**, 101, 423-9	3.5	
5	Biotribometer for Assessment of Cell and Tissue Toxicity of Orthopedic Metal Implant Debris.. *Methods in Molecular Biology*, **2022**, 2394, 713-725	1.4	
4	Interactions between hyaluronic acid and CoCrMo alloy surface in simulated synovial fluids. *Biosurface and Biotribology*, **2021**, 7, 239	1	
3	Effects of Simple and Complex Motion Patterns on Gene Expression of Chondrocytes Seeded in 3D Scaffolds. *Tissue Engineering*, **2006**, 061004065151001		

2	Linear Penetration as a Surrogate Measure for Volumetric Wear in TKR Tibial Inserts **2018**, 75-92	
1	Optimal surgical component alignment minimizes TKR wear - An in silico study with nine alignment parameters. *Journal of the Mechanical Behavior of Biomedical Materials*, **2022**, 125, 104939	4.1