## Heidi-lynn Ploeg

## List of Publications by Citations

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18 58 30 973 g-index h-index citations papers 65 1,128 4.18 2.7 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
58	Determination of orthotropic bone elastic constants using FEA and modal analysis. <i>Journal of Biomechanics</i> , <b>2002</b> , 35, 767-73	2.9	178
57	2404. Telavancin (TLV) and Vancomycin (VAN) Activity and Impact on Mechanical Properties When Incorporated into Orthopedic Bone Cement. <i>Open Forum Infectious Diseases</i> , <b>2018</b> , 5, S718-S718	1	78
56	Mechanical, material, and antimicrobial properties of acrylic bone cement impregnated with silver nanoparticles. <i>Materials Science and Engineering C</i> , <b>2015</b> , 48, 188-96	8.3	75
55	Modification of acrylic bone cement with mesoporous silica nanoparticles: effects on mechanical, fatigue and absorption properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2014</b> , 29, 451-61	4.1	44
54	Biodynamics. Influence of gender, power, and hand position on pelvic motion during seated cycling. <i>Medicine and Science in Sports and Exercise</i> , <b>2007</b> , 39, 2204-11	1.2	37
53	Mechanical characterization of injection-molded macro porous bioceramic bone scaffolds. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2012</b> , 9, 137-52	4.1	36
52	Gender differences in bicycle saddle pressure distribution during seated cycling. <i>Medicine and Science in Sports and Exercise</i> , <b>2008</b> , 40, 1126-34	1.2	36
51	Monitoring Motor Symptoms During Activities of Daily Living in Individuals With Parkinson Disease. Frontiers in Neurology, <b>2018</b> , 9, 1036	4.1	36
50	Compressive properties of trabecular bone in the distal femur. <i>Journal of Biomechanics</i> , <b>2008</b> , 41, 1077-	<b>-85</b> 9	34
49	Determination of the translational and rotational stiffnesses of an L4-L5 functional spinal unit using a specimen-specific finite element model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2012</b> , 13, 45-61	4.1	31
48	Mice lacking pten in osteoblasts have improved intramembranous and late endochondral fracture healing. <i>PLoS ONE</i> , <b>2013</b> , 8, e63857	3.7	30
47	Precision, repeatability and accuracy of Optotrak optical motion tracking systems. <i>International Journal of Experimental and Computational Biomechanics</i> , <b>2009</b> , 1, 114		30
46	Vancomycin elution, activity and impact on mechanical properties when added to orthopedic bone cement. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2018</b> , 87, 80-86	4.1	26
45	The influence of glove and hand position on pressure over the ulnar nerve during cycling. <i>Clinical Biomechanics</i> , <b>2011</b> , 26, 642-8	2.2	22
44	The effect of sintering temperature on the microstructure and mechanical properties of a bioceramic bone scaffold. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2011</b> , 4, 2150-60	4.1	22
43	Hip stem fatigue test prediction. International Journal of Fatigue, 2009, 31, 894-905	5	22
42	Multiscale characterization of acrylic bone cement modified with functionalized mesoporous silica nanoparticles. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2014</b> , 37, 141-52	4.1	21

## (2008-2004)

41	Bone remodelling of a proximal femur with the thrust plate prosthesis: an in vitro case. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2004</b> , 7, 131-7	2.1	18	
40	The influence of low concentrations of a water soluble poragen on the material properties, antibiotic release, and biofilm inhibition of an acrylic bone cement. <i>Materials Science and Engineering C</i> , <b>2014</b> , 42, 168-76	8.3	17	
39	The Influence of Crown Height to Diameter Ratio on the Force to Fracture of Canine Teeth in Dogs. <i>Journal of Veterinary Dentistry</i> , <b>2015</b> , 32, 155-63	1	17	
38	Recovery of bone strength in young pigs from an induced short-term dietary calcium deficit followed by a calcium replete diet. <i>Medical Engineering and Physics</i> , <b>2010</b> , 32, 1116-23	2.4	16	
37	Dependence of anisotropy of human lumbar vertebral trabecular bone on quantitative computed tomography-based apparent density. <i>Journal of Biomechanical Engineering</i> , <b>2014</b> , 136, 091003	2.1	15	
36	Fracture healing in mice lacking Pten in osteoblasts: a micro-computed tomography image-based analysis of the mechanical properties of the femur. <i>Journal of Biomechanics</i> , <b>2015</b> , 48, 310-7	2.9	13	
35	Effect of preparation surface area on the clinical outcome of full veneer crowns in dogs. <i>Journal of Veterinary Dentistry</i> , <b>2014</b> , 31, 22-5	1	12	
34	Estimating the density of femoral head trabecular bone from hip fracture patients using computed tomography scan data. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , <b>2014</b> , 228, 616-626	1.7	11	
33	Mechanical, elution, and antibacterial properties of simplex bone cement loaded with vancomycin. Journal of the Mechanical Behavior of Biomedical Materials, <b>2020</b> , 103, 103588	4.1	9	
32	Residual Equinus After the Ponseti Method: An MRI-based 3-Dimensional Analysis. <i>Journal of Pediatric Orthopaedics</i> , <b>2018</b> , 38, e271-e277	2.4	8	
31	Comparison of the influences of structural characteristics on bulk mechanical behaviour: experimental study using a bone surrogate. <i>Medical and Biological Engineering and Computing</i> , <b>2012</b> , 50, 61-7	3.1	8	
30	Combined exposure to big endothelin-1 and mechanical loading in bovine sternal cores promotes osteogenesis. <i>Bone</i> , <b>2016</b> , 85, 115-22	4.7	7	
29	Time-dependent fixation and implantation forces for a femoral knee componentan in vitro study. <i>Medical Engineering and Physics</i> , <b>2010</b> , 32, 968-73	2.4	7	
28	The Influence of Force Direction on the Fracture Pattern and Fracture Resistance of Canine Teeth in Dogs. <i>Journal of Veterinary Dentistry</i> , <b>2017</b> , 34, 8-17	1	6	
27	A new bone surrogate model for testing interbody device subsidence. <i>Spine</i> , <b>2011</b> , 36, 1289-96	3.3	6	
26	Initial fixation of a femoral knee component: an in vitro and finite element study. <i>International Journal of Experimental and Computational Biomechanics</i> , <b>2009</b> , 1, 23		5	
25	Post-yield relaxation behavior of bovine cancellous bone. <i>Journal of Biomechanics</i> , <b>2009</b> , 42, 2728-33	2.9	5	
24	A Calibration Procedure for a Bone Loading System. <i>Journal of Medical Devices, Transactions of the ASME</i> , <b>2008</b> , 2,	1.3	5	

23	Repeatable calibration of Hounsfield units to mineral density and effect of scanning medium. <i>Advances in Biomechanics and Applications</i> , <b>2014</b> , 1, 15-22		5
22	Material and Mechanical Properties of Tricalcium Phosphate-Based (TCP) Scaffolds 2009,		4
21	Accounting for structural compliance in nanoindentation measurements of bioceramic bone scaffolds. <i>Ceramics International</i> , <b>2014</b> , 40, 12485-12492	5.1	3
20	Effect of insertion factors on dental implant insertion torque/energy-experimental results. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 112, 103995	4.1	3
19	The Influence of Axial Grooves on Dislodgment Resistance of Prosthetic Metal Crowns in Maxillary Fourth Premolar Teeth of Dogs. <i>Journal of Veterinary Dentistry</i> , <b>2016</b> , 33, 151-156	1	3
18	The Influence of Axial Grooves on Dislodgment Resistance of Prosthetic Metal Crowns in Canine Teeth of Dogs. <i>Journal of Veterinary Dentistry</i> , <b>2016</b> , 33, 146-150	1	3
17	Characterization of the quasi-static and viscoelastic properties of orthopaedic bone cement at the macro and nanoscale. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2017</b> , 105, 1461-1468	3.5	2
16	Evaluation of experimental, analytical, and computational methods to determine long-bone bending stiffness. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2021</b> , 115, 104253	4.1	2
15	Design of a surrogate for evaluation of methods to predict bone bending stiffness. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2018</b> , 88, 346-351	4.1	2
14	Quantitative Comparison of Mathematical Models to Measure Surface Area of Canine Teeth Prepared to Receive Full Veneer Crowns in Dogs. <i>Frontiers in Veterinary Science</i> , <b>2015</b> , 2, 31	3.1	1
13	3D Elastomeric Scaffolds Fabricated by Casting in Micro End Milled Moulds. <i>Journal of Biomimetics, Biomaterials, and Tissue Engineering</i> , <b>2011</b> , 9, 17-23		1
12	Statistical shape modelling to analyse the talus in paediatric clubfoot. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , <b>2021</b> , 235, 849-860	1.7	O
11	The dependence of knee joint stability on the cruciate and collateral ligaments. <i>Movement and Sports Sciences - Science Et Motricite</i> , <b>2015</b> , 37-54	0.5	
10	Effect of Sintering Temperature on Microstructural Properties of Bioceramic Bone Scaffolds. <i>Ceramic Transactions</i> , <b>2012</b> , 101-109	0.1	
9	A methodology for the pre-clinical evaluation of patellar implants. <i>International Journal of Experimental and Computational Biomechanics</i> , <b>2009</b> , 1, 129		
8	Trabecular bone density distribution in the scapula of patients undergoing reverse shoulder arthroplasty <i>JSES International</i> , <b>2022</b> , 6, 32-39	1.2	
7	Evaluation of telavancin-loaded bone cement: Elution, eluate activity, and mechanical properties. <i>Materialia</i> , <b>2021</b> , 20, 101239	3.2	
6	Preclinical Analysis to Assess Aseptic Loosening of Orthopaedic Implants. <i>Lecture Notes in Bioengineering</i> , <b>2018</b> , 129-143	0.8	

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Biomedical Materials, 2022, 131, 105223

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4	Comparison of Two Bone Surrogates for Interbody Device Subsidence Testing <b>2012</b> , 15-24	
3	Comparison of Two Bone Surrogates for Interbody Device Subsidence Testing. <i>Journal of ASTM International</i> , <b>2012</b> , 9, 103498	
2	Data for vancomycin elution, activity and impact on mechanical properties when incorporated into orthopedic bone cement. <i>Data in Brief</i> , <b>2018</b> , 20, 14-19	1.2
-1	Analytical model for dental implant insertion torque Journal of the Mechanical Behavior of	1.7

Comparison of Two Bone Surrogates for Interbody Device Subsidence Testing 2012, 15-24

4.1